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Santa Ana Fire Department Experiments at South Bristol Street

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ABSTRACT

A series of fire experiments were conducted in vacant single family dwellings on South Bristol Street in Santa Ana, California. Fire experiments were conducted in bedrooms and living rooms. Fuels consisted of either home furnishings or a propane burner. Fire phenomena measured included: temperatures within various rooms, wall jet velocity, fuel mass during burning, heat flux smoke detector activation time, sprinkler activation time, oxygen concentration, and time to full room involvement.

Key words: bedrooms, fire tests, furniture, home fires, single family dwellings, smoke detectors, sprinklers, temperature measurements

1.0 INTRODUCTION

The Santa Ana Fire Department of Santa Ana, California conducted a series of residential fire experiments in the City of Santa Ana during July, 1994 and July, 1995. NIST provided technical support, consisting of measurements of fire phenomena, to the fire department during these experiments.

The experiments were conducted in four abandon single family dwellings on South Bristol Street. With two exceptions, a single room of fire origin was used for all of the experiments in a given dwelling. The exceptions were 1315 South Bristol Street, in which a bedroom and the living room were used for experiments and 1247 South Bristol Street in which a single experiment with fire originating in the bedroom was conducted. The data from the experiments is presented in 5 sections. Each section contains the results from the experiment(s) conducted in a specific room. Each section includes a description of the experiment(s), diagrams of the experimental layout, and graphs of the data. An appendix is included for each section which contains a complete record of the temperature tree measurements for the experiments. A summary of the experiments described in each section is provided below.

Section 2 describes the four bedroom experiments conducted at 1309 South Bristol Street. The fuel for the four experiments consisted of a single bunk bed, propane from a gas burner, a single twin bed, and furnishings to simulate an overcrowded bedroom.

Section 3 describes the two bedroom experiments conducted at 1315 South Bristol Street. The fuel for the two experiments consisted of two bunk beds and furnishings to simulate a typical bedroom.

Section 4 describes the living room experiment conducted at 1315 South Bristol Street. The fuel for this experiment consisted of furnishings to simulate an overcrowded condition.

Section 5 describes the bedroom experiment conducted at 1247 South Bristol Street. The fuel this experiment consisted of furnishings to simulate an overcrowded condition. In this experiment furnishings were placed in the bedroom were the fire was initiated and in the adjacent living room.

Section 6 describes the two bedroom experiments conduct at 1323 South Bristol Street. The fuel for the two experiments consisted of propane from a burner at a low and high flow rate.

2.0 BEDROOM EXPERIMENTS AT 1309 SOUTH BRISTOL STREET

The four experiments addressed in this section occurred on July 11 and 12, 1994, at 1309 South Bristol Street. The measurements included: temperatures within various rooms, gas velocity, fuel mass during burning, heat flux, smoke detector activation time, sprinkler activation time, and time to full room involvement. Data were recorded every 5 seconds with a computerized acquisition system.

All four experiments were conducted in the same house, with the same fire room and instrument layout. Table 1 shows the measurements made during each experiment. The type of fuel burned in each experiment, either home furnishings or propane, is also included in table 1.

2.1 Structure

The building used for the fire experiments was a vacant one story single family dwelling. The building was of wood frame construction, with gypsum board interior walls and ceilings. Exterior walls consisted of stucco over paper and wire mesh. The floors throughout the building, except the kitchen and bathroom, were constructed of hardwood. For some experiments, the fire room floor was covered with carpet. The floors in the kitchen and bathroom were covered with vinyl flooring.

The building had no basement, but it did have a ventilated crawl space. The pitched roof of the building consisted of several layers of asphalt shingles and tar and gravel over redwood planks.

The layout of the building is shown in figure 1, and includes three bedrooms, a bathroom, living room, kitchen, and garage. The front bedroom served as the fire room for all four of the experiments. All doors in the building were closed during the experiments except the front bedroom closet, the door connecting the front bedroom and the hall, and the exterior rear kitchen door. All windows in the fire room were covered on the inside with gypsum board, with the remaining windows of the building covered with plywood.

The distance from the floor to the ceiling in the fire room was 2.43 m (7.97 ft), due to an extra layer of gypsum board installed on the ceiling to provide increased fire resistance, while the distance from the floor to the ceiling in the other rooms of the building was 2.44 m (8.01 ft). The widths of the door openings are as follows: exterior doors were 0.91 m (36 in), interior doors were 0.76 m (30 in), and closet doors were 0.61 m (24 in). The heights of the door openings were 2.03 m (80.0 in). The standard uncertainties in the ceiling height and door opening dimensions are estimated at ± 0.01 m (± 0.4 in).

2.2 Fuel Load

The fire rooms were furnished by the Santa Ana Fire Department to simulate typical "standard" and "high" fuel load conditions ranging from approximately 76 kg to 453 kg of combustible furnishings. Fuel load is defined as the mass of fuel found in a room divided by the floor area of the room. The standard and high fuel loadings are qualitative measures that represent the experiences of fire fighters in the Santa Ana city fire department.

Experiments 1 and 3, which will be called the "bunk bed" experiment and the "twin beds" experiment respectively, consisted of "standard" fuel load configurations. Experiment 4, called the "overcrowded" experiment, simulated "high" fuel load conditions. The total fuel load for each experiment, and the masses of the individual components are listed in tables 2 through 4, with an estimated standard uncertainty of 10% for the scale used in the experiments. Figures 2 through 4 show the locations of the furniture in each experiment.

The "clothing" listed in tables 3 and 4 were distributed throughout the bedroom in the twin beds and overcrowded experiments respectively. In the twin beds experiment, clothing was placed on clothes hangers and suspended in the bedroom closet from a closet rail filled to capacity. A small amount of clothing was placed on the floor of the closet and on a shelf above the closet rail. Small quantities of clothing were placed on the two twin beds. Small amounts of clothing were placed on the tops of both dressers. In addition to the clothing, drapes were placed over the windows of the room on the wall nearest the beds.

In the overcrowded experiment, the bedroom closet was completely filled with clothing. In addition to the clothing on hangers, the shelf and bottom of the closet were filled with piles of clothing. A clothesline was attached to the wall of the bedroom touching the double bed but not the bunk beds. A large quantity of clothing was draped over this clothes line during the experiment. Large quantities of clothing were placed on the top bunks of the two bunk beds, with portions of this clothing hanging over the sides of the beds. Piles of clothing were placed on top of the dresser, cabinet, and television cabinet. As in the twin beds experiment, drapes were placed over the windows of the room on the wall closest to the beds.

The ignition source for each of the furnishings fires was a plastic waste basket with nominal overall dimensions of 255 mm high by 255 mm wide by 188 mm deep (10.0 x 10.0 x 7.4 in). The waste basket contained a total of eight 2 quart waxed cardboard milk cartons. Two cartons were placed vertically in the basket, with another placed inside each of the two forming two double layered vertically oriented open cartons. Inside each of the vertical cartons were placed the torn pieces, nominally 1.0×10^3 mm^2 (1.6 in^2), from two identical cartons. The waste basket was ignited by removing one torn piece from each of the two vertical cartons, igniting it, and dropping it into the carton.

Experiment 2, called the "burner" experiment, was conducted with a propane burner as the fire source. The low momentum rectangular burner, with burning surface dimensions of approximately 422 mm (16.6 in) by 368 mm (14.5 in), was made from an open top steel box with the gas inlet on one side. The top surface of the burner consisted of ceramic fiber insulation with an expanded metal retainer. The propane flow rate during the burner experiment was approximately 6.44×10^{-3} standard m^3/s (818 standard ft^3/h), where standard conditions are defined as 20 °C (68 °F) and 101.32 kPa (14.696 psi) of absolute pressure. The calculated net heat release rate resulting from the above flow rate, assuming stoichiometric combustion, would be approximately 550 kW (1.9 million Btu/h). The location of the burner within the room is shown in figure 5.

2.3 Smoke Detector Response

A smoke detector was installed in the hallway outside the bedrooms in accordance with NFPA 72, *National Fire Alarm Code*. The detector was a single station, battery powered, UL listed, ionization type smoke detector. The activation time for the smoke detector was recorded manually by an observer equipped with a stop watch. The location of the smoke detector is shown in figure 6.

2.4 Sprinkler Actuation

To measure the activation times of typical residential type sprinklers, one pendent sprinkler was installed in the ceiling of the fire room, and one sidewall sprinkler was installed on the wall of the fire room. It should be noted that either a single sidewall or pendent sprinkler would be sufficient for this room if a residential sprinkler system was installed in this house in accordance with NFPA 13D, *Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes,* and the sprinklers's listing.

The sprinklers each had a glass bulb element with an activation temperature of 68 °C (155 °F). Each sprinkler was connected to a pressure switch with copper tubing. The tubing was pressurized with approximately 210 kPa (30 psi) of air pressure. When a sprinkler actuated, the signal was recorded on the data acquisition system, and timed via an indicator light.

In addition to the sprinklers installed for the measurement of activation time, a sidewall sprinkler, attached to a manually controlled water supply, was installed in the fire room for safety purposes. Water was applied through the sprinkler for approximately 15 seconds at the end of the overcrowded experiment before manual fire fighting. Dry chemical extinguishers were used to extinguish the fires in the bunk bed and twin beds experiments.

The locations of the various sprinklers are shown in figure 6. The center of the sidewall sprinkler was 0.13 m (4.9 in) from the ceiling, with the deflector positioned 0.07 m (2.8 in) from the wall. The deflector of the pendent sprinkler was 0.07 m (2.8 in) from the ceiling. The standard uncertainties in the sprinkler locations are estimated at ± 0.01 m (± 0.4 in).

2.5 Temperature Measurement

The temperatures were measured with 0.51 mm (0.02 in) nominal diameter bare bead, type K thermocouples. The floor to ceiling thermocouple arrays were located in the bedroom, hallway, and living room as shown in figure 6. The elevations of the thermocouples above the floor are given in table 5 for the bedroom, and in table 6 for the hallway and living room.

Individual thermocouples were positioned within 20 mm (0.79 in) of the pendent and sidewall sprinklers used to measure activation time. A thermocouple was also placed within a sheet of crumpled newspaper on the floor of the front bedroom. This thermocouple was used to detect ignition of the newspaper, an indication that full room involvement had occurred.

The standard uncertainty in temperature measurement is ± 2.2 °C (± 4.0 °F) as determined by the thermocouple wire manufacturer. The standard uncertainties in the thermocouple locations are estimated at ± 0.01 m (± 0.4 in).

2.6 Velocity Measurement

The vertical gas velocity near the sidewall sprinkler was measured with a bidirectional probe connected to a differential pressure transducer. The bidirectional probe was 0.19 m (7.3 in) below the ceiling, and 0.11 m (4.3 in) horizontally from the sidewall sprinkler. The standard uncertainties for the gas velocity measurements are ± 0.1 m/s (± 0.3 ft/s), based on manufacturer data for the differential pressure transducer. The standard uncertainties in the probe location measurements are estimated at ± 0.01 m (± 0.4 in).

2.7 Heat Flux Measurement

The total heat flux at the floor of the fire room was measured with a water cooled Gardon Gauge heat flux transducer. The transducer was mounted in a piece of gypsum board placed on the floor of the fire room. The gypsum board kept the transducer in the correct, upward facing, direction during the experiment and helped protect the water and data lines from fire and mechanical damage. The standard uncertainty for the heat flux measurements is estimated at ± 3% from manufacturer data.

2.8 Mass Loss Measurement

The mass of the bunk bed fuel array was measured using a strain gauge during the bunk bed experiment. One end of the strain gauge was attached to a support structure mounted on the roof. A cable attached to the other end of the strain gauge penetrated through the ceiling of the burn room and was attached to the four top corners of the bunk bed frame, suspending it above the floor. The strain gauge, calibrated to measure mass, was recorded with the data acquisition system. The standard uncertainty for the mass loss data is estimated at ± 0.1 kg (± 0.2 lb) from manufacturer data.

2.9 Results

The sequences of events for the experiments are given in table 7, with an estimated standard uncertainty of ± 2 seconds in the event times. Note that table 7 is missing a value for the overcrowded experiment since the criteria used to define full room involvement were not satisfied. The conditions defining full room involvement in these experiments were most or all of the following: heat flux levels of approximately 20 kW/m^2 at floor level, radiant ignition of paper at floor level, a rapid increase in the hot layer temperature from approximately 550 °C (1000 °F) to approximately 800 °C (1500 °F), and an increase in the cold layer temperature to levels approaching that of the hot layer. While the paper on the floor of the room did not ignite in the overcrowded experiment, the temperature of the hot gas layer in the room was within the range, 550 °C (1000 °F) to 600 °C (1100 °F), that would suggest that full room involvement was imminent. These conditions were sustained within the room for approximately 500 s, after which time the fire was manually suppressed with the sidewall sprinkler installed for this purpose. The substantial fire damage present in the room, including charring of lower room surfaces, along with the temperatures measured within the room during the fire, are consistent with ventilation limited fire conditions.

The temperatures measured within the fire rooms are shown in figures 7 through 10. The data are presented for various distances from the floor, illustrating the temperature profile within the room. The temperatures of all thermocouple locations are not plotted; a subset of thermocouples is adequate for describing the temperature trends at various elevations within the room. Data from all of the thermocouple tree temperature measurements are recorded in appendix A of this report.

The average temperatures of the region from 1.83 m (6.00 ft) above the floor to the ceiling are displayed in figure 11 for the experiments with furnished burn rooms. The average temperature was calculated from all of the thermocouples within the region, i.e. thermocouples 1 through 7. The thermocouple temperatures were spatially weighted due to the closer thermocouple spacing near the ceiling. The temperature of the space between the ceiling and first thermocouple was assumed equal to the temperature of the first thermocouple.

The temperatures of the thermocouples at the sprinkler locations are plotted in figures 12 through 15.

Temperatures measured within the hallway are shown in figures 16 through 19. As with the fire room, temperatures are given versus time for selected heights above the floor. The average temperatures of the region from 1.84 m (6.04 ft) above the floor to the ceiling are displayed in figure 20 for the experiments with furnished burn rooms.

Temperatures measured in the living room are shown in figures 21 through 24. The average temperatures of the region from 1.84 m (6.04 ft) above the floor to the ceiling are displayed in figure 25 for the experiments with furnished burn rooms.

The gas velocities of the wall jets measured by the bidirectional probe on the wall of the fire room are shown in figure 26. Positive velocities indicate upward flow, while negative velocities indicate downward flow.

The burning rate of the bunk bed in the bunk bed experiment is illustrated in figure 27 by plotting the mass of the bed over time.

The total heat flux, measured at floor level, is shown for the bunk bed and burner experiments in figure 28.

Table 1. Instrumentation

	Experiment			
	1	2	3	4
	Bunk Bed	**Burner**	**Twin Beds**	**Over-crowded**
Temperatures	●	●	●	●
Wall jet velocity	●	●	●	●
Mass	●			
Total heat flux	●	●		
Smoke detector activation time	●	●	●	●
Sprinkler activation time	●	●	●	●
Time to full room involvement	●	●	●	●
Propane as fuel		●		
Furnishings as fuel	●		●	●

Table 2. Fuel load, bunk bed experiment

Item	Mass (kg)	Weight (lb)
Mattress 1	18.0	39.7
Mattress 2	15.1	33.3
Pillows	1.4	3.0
Bunk bed frame (wood)	37.8	83.3
Bedding	3.6	7.9
Total	**75.9**	**167.2**

Table 3. Fuel load, twin beds experiment

Item	Mass (kg)	Weight (lb)
Mattress 1	26.3	58.0
Mattress 2	26.3	58.0
Box spring 1	19.1	42.0
Box spring 2	19.1	42.0
Bed frames (wood)	10.4	23.0
Clothing	60.0	130.0
Television set	45.4	100.0
Television stand	5.0	11.0
Carpet	15.9	35.0
Dresser (brown)	24.5	54.0
Dresser (white)	44.5	98.0
Bedding and drapes	22.7	50.0
Total	**318.0**	**701.0**

Table 4. Fuel load, overcrowded experiment

Item	Mass (kg)	Weight (lb)
Twin mattress 1	22.7	50.0
Twin mattress 2	22.7	50.0
Twin mattress 3	12.7	28.0
Twin mattress 4	9.1	20.0
Double mattress	18.1	40.0
Twin box spring used under double mattress	18.1	40.0
Bunk bed frame (wood)	24.5	54.0
Bunk bed frame (wood)	24.5	54.0
Double bed frame (wood)	3.6	8.0
Clothing	139.3	307.0
Bedding	10.0	22.0
Drapes	3.6	8.0
Night Stand	22.7	50.0
End table	22.7	50.0
Dresser	31.8	70.0
Television set	66.7	147.0
Total	**453.0**	**998.0**

Table 5. Bedroom thermocouple elevations

Thermocouple Number	Distance From Floor (m)	Distance From Floor (ft)
1	2.41	7.89
2	2.36	7.73
3	2.28	7.48
4	2.21	7.23
5	2.13	6.99
6	1.98	6.50
7	1.83	6.00
8	1.68	5.51
9	1.53	5.02
10	1.38	4.53
11	1.23	4.04
12	1.08	3.54
13	0.93	3.05
14	0.78	2.56
15	0.63	2.07
16	0.48	1.58
17	0.33	1.08
18	0.18	0.59

Table 6. Hallway and living room thermocouple elevations

Thermocouple Number	Distance From Floor (m)	Distance From Floor (ft)
1	2.42	7.92
2	2.37	7.76
3	2.29	7.51
4	2.22	7.27
5	2.14	7.02
6	1.99	6.53
7	1.84	6.04
8	1.69	5.55
9	1.54	5.05
10	1.39	4.56
11	1.24	4.07
12	1.09	3.58
13	0.94	3.08
14	0.79	2.59
15	0.64	2.10
16	0.49	1.61
17	0.34	1.12
18	0.19	0.62

Table 7. Sequence of events

Event	Time (s) Experiment 1 Bunk Bed	2 Burner	3 Twin Beds	4 Over-crowded
Ignition	0	0	0	0
Smoke detector actuation	160	23	67	62
Pendent sprinkler actuation	188	14	100	118
Sidewall sprinkler actuation	204	24	105	123
Transition to full room involvement	256	233	250	-
End of experiment	274	260	253	635

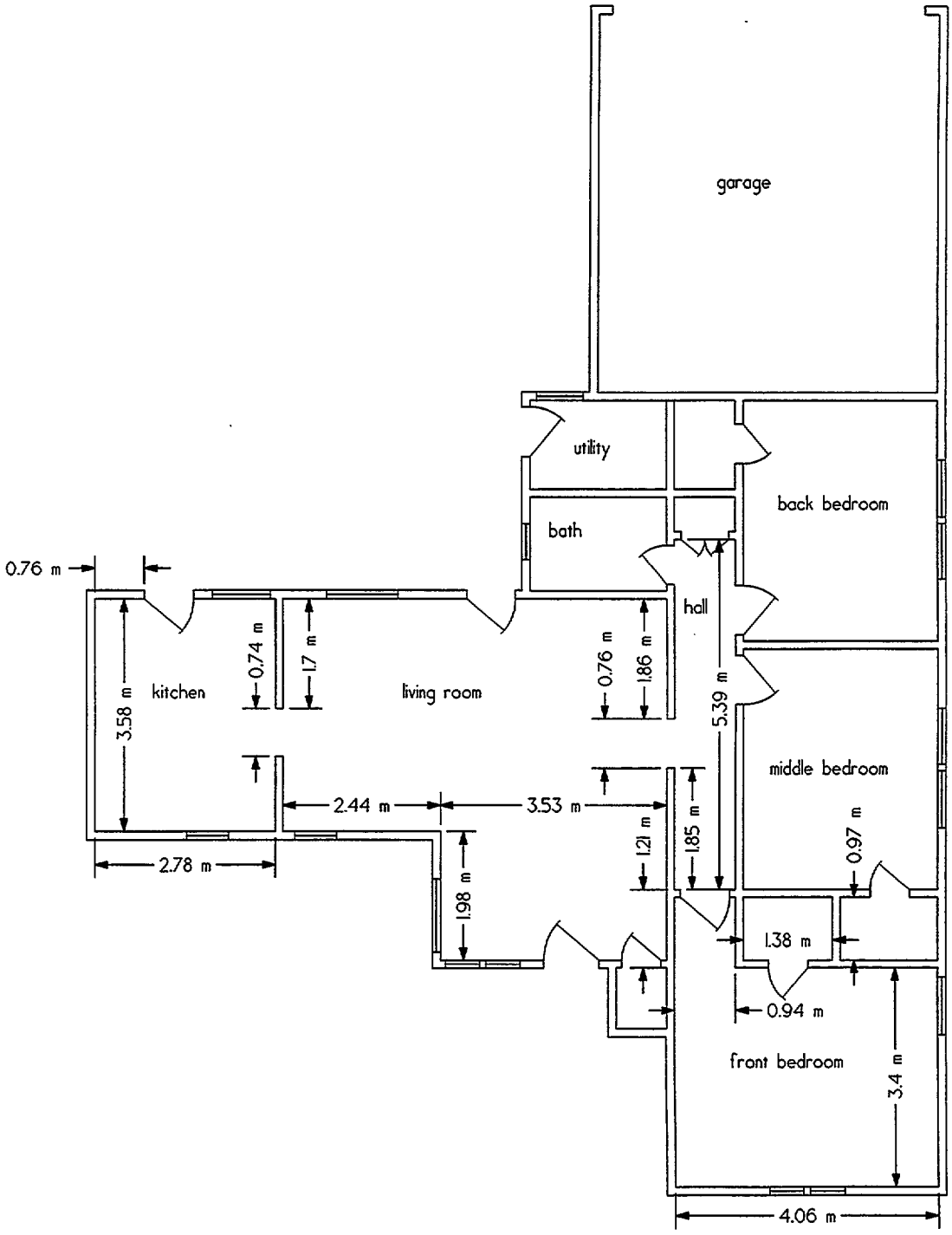

Figure 1. Plan view of the structure

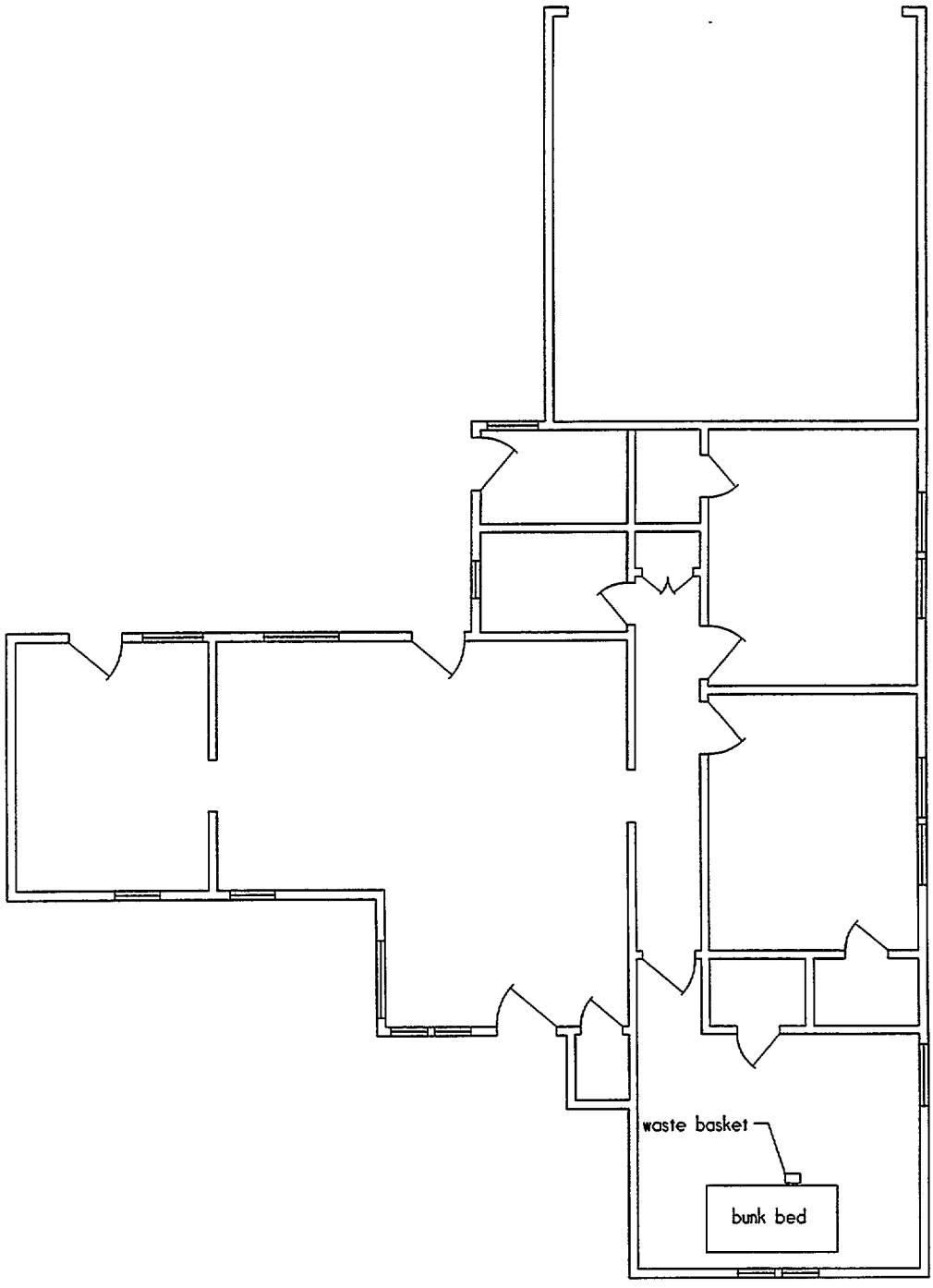

Figure 2. Plan view of the bedroom with fuel packages, bunk bed experiment

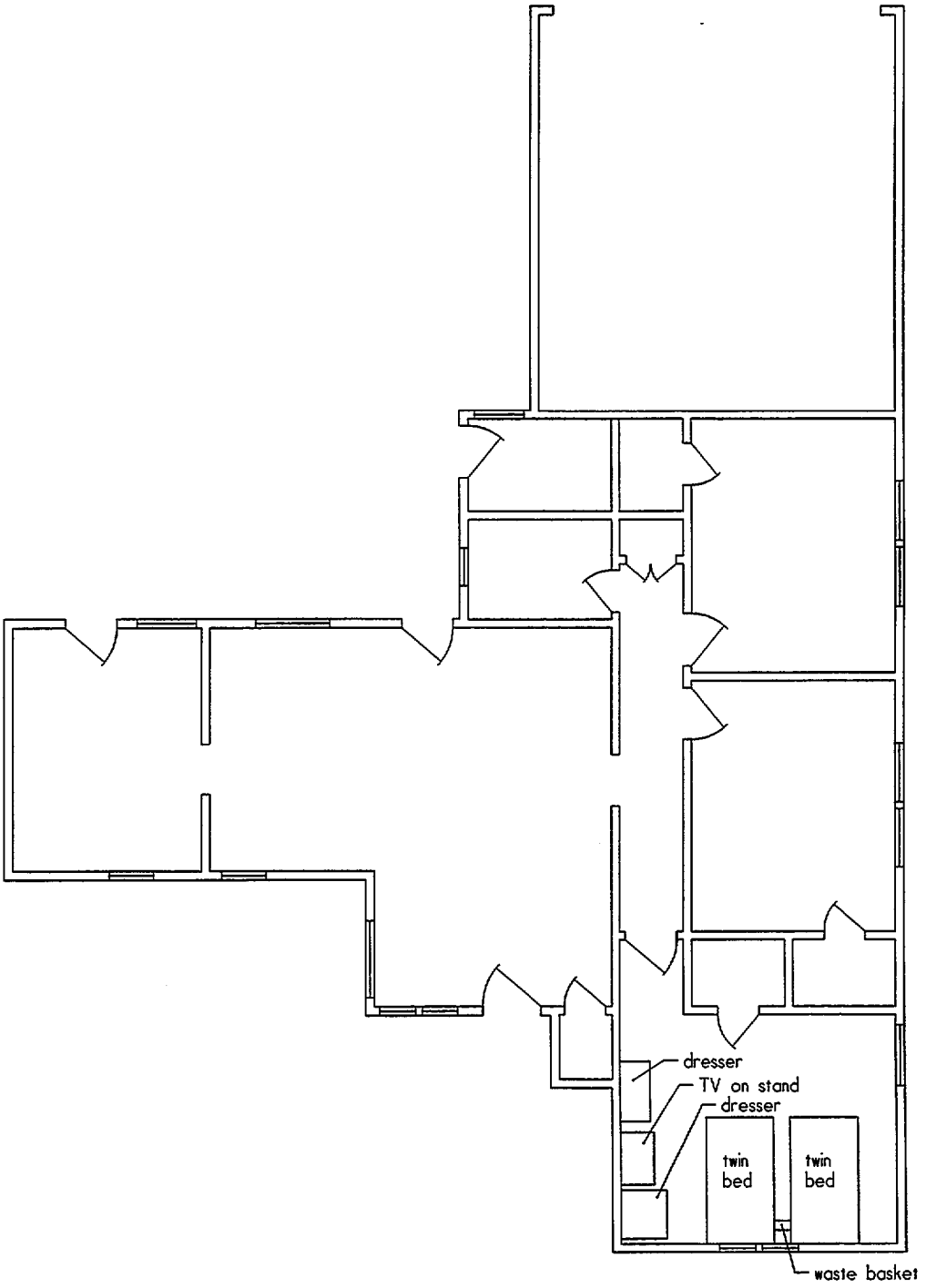

Figure 3. Plan view of the bedroom with fuel packages, twin beds experiment

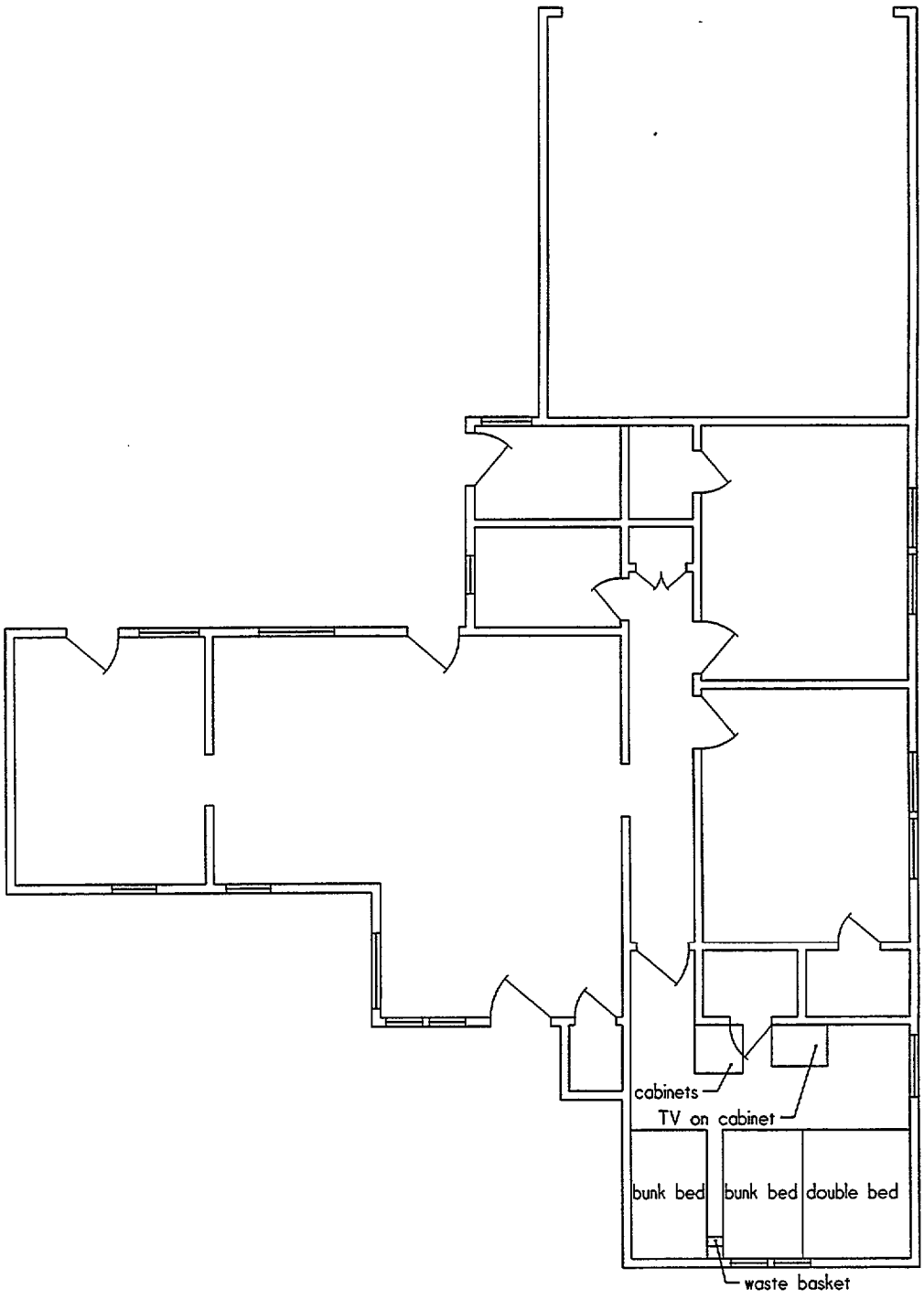

Figure 4. Plan view of the bedroom with fuel packages, overcrowded experiment

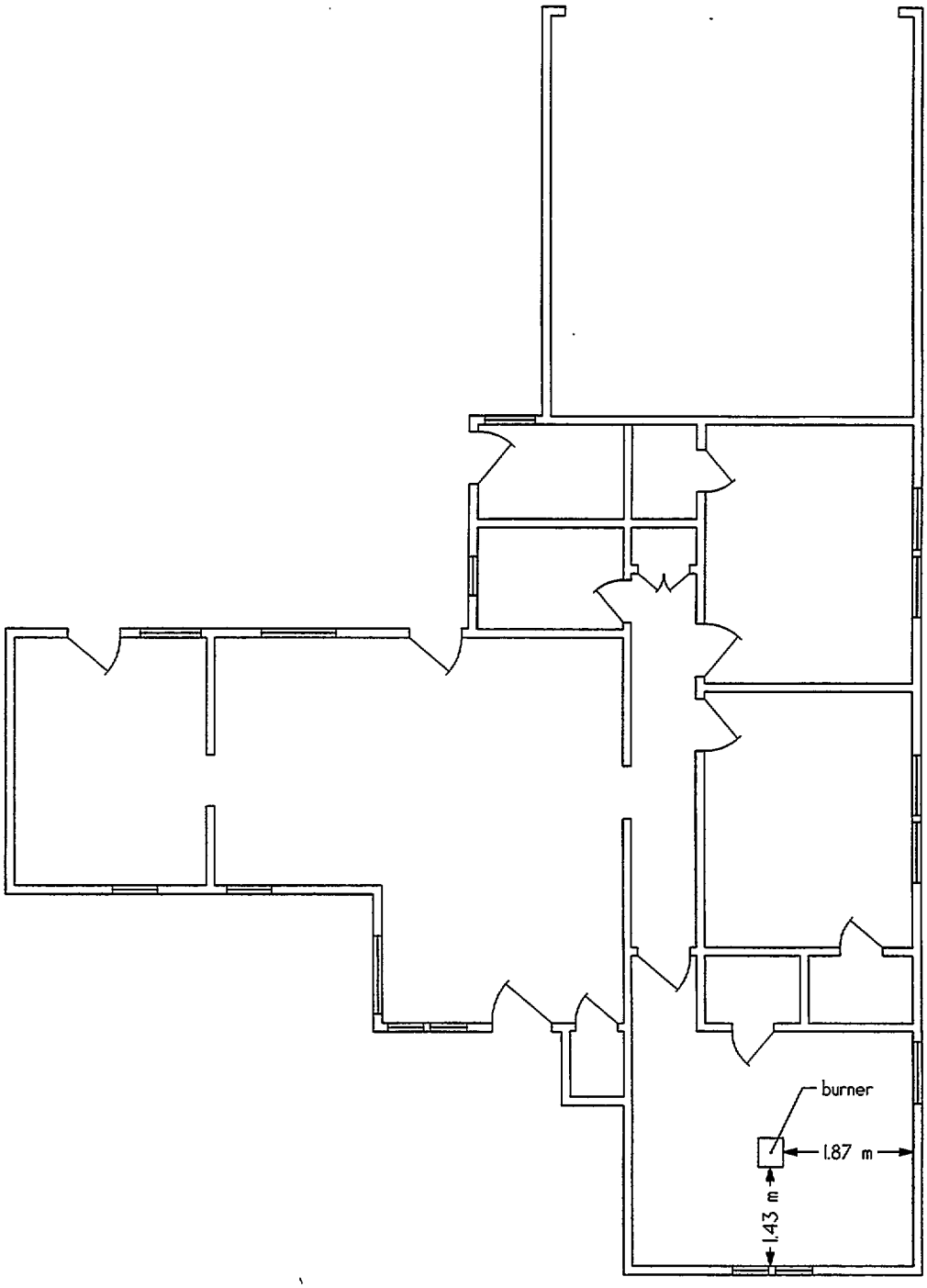

Figure 5. Plan view of the bedroom with the propane burner installed

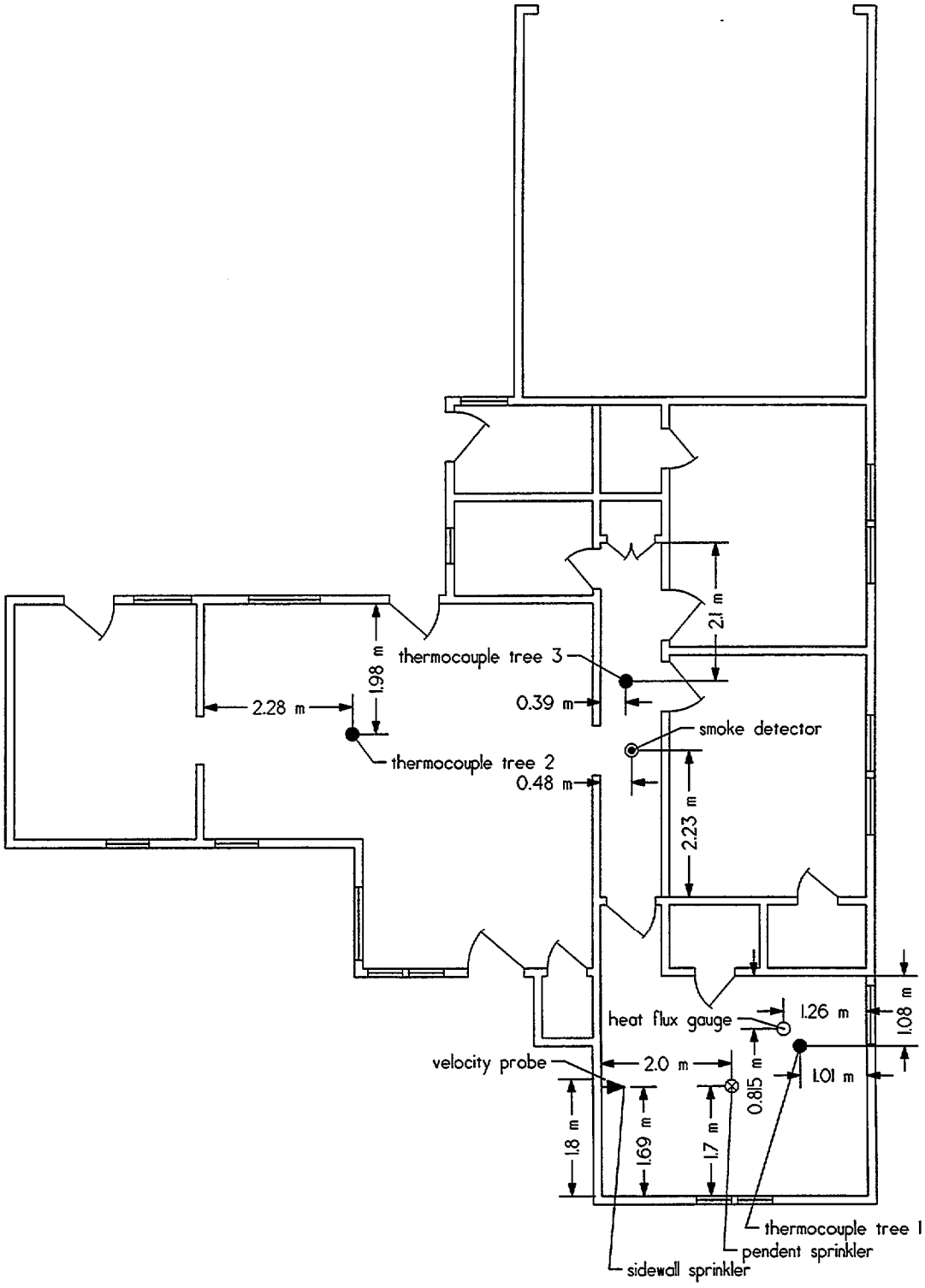

Figure 6. Plan view of the structure with instrumentation

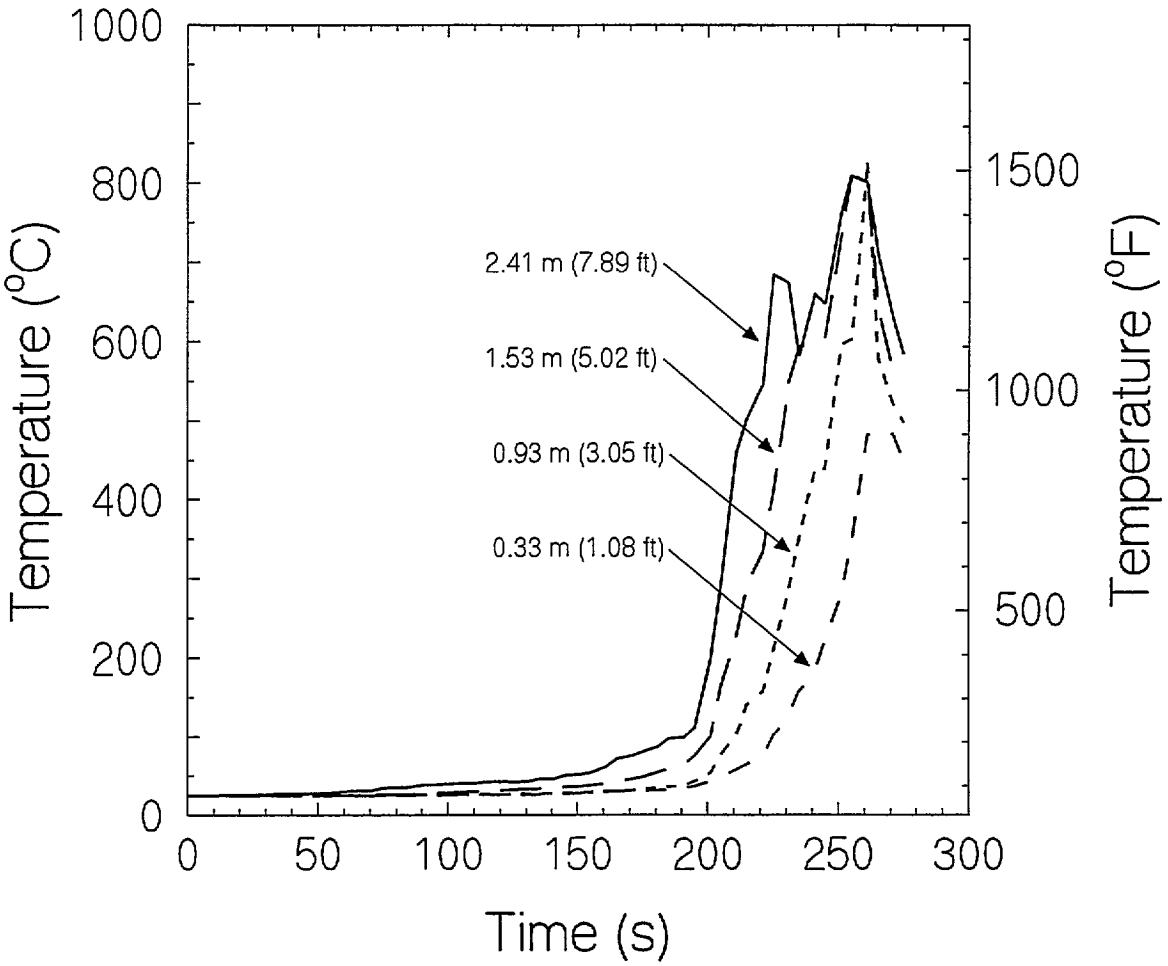

Figure 7. Bedroom temperatures, bunk bed experiment (distances above floor)

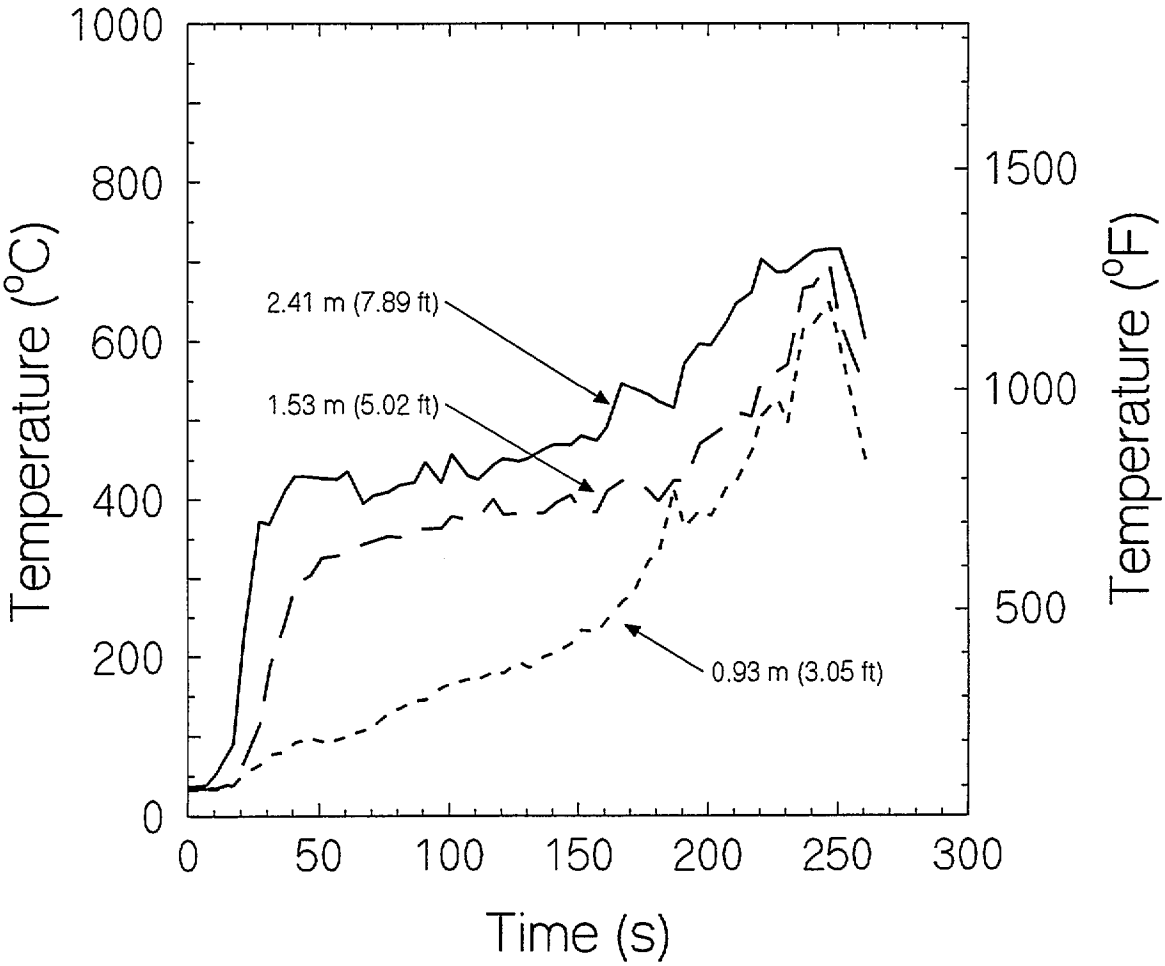

Figure 8. Bedroom temperatures, burner experiment (distances above floor)

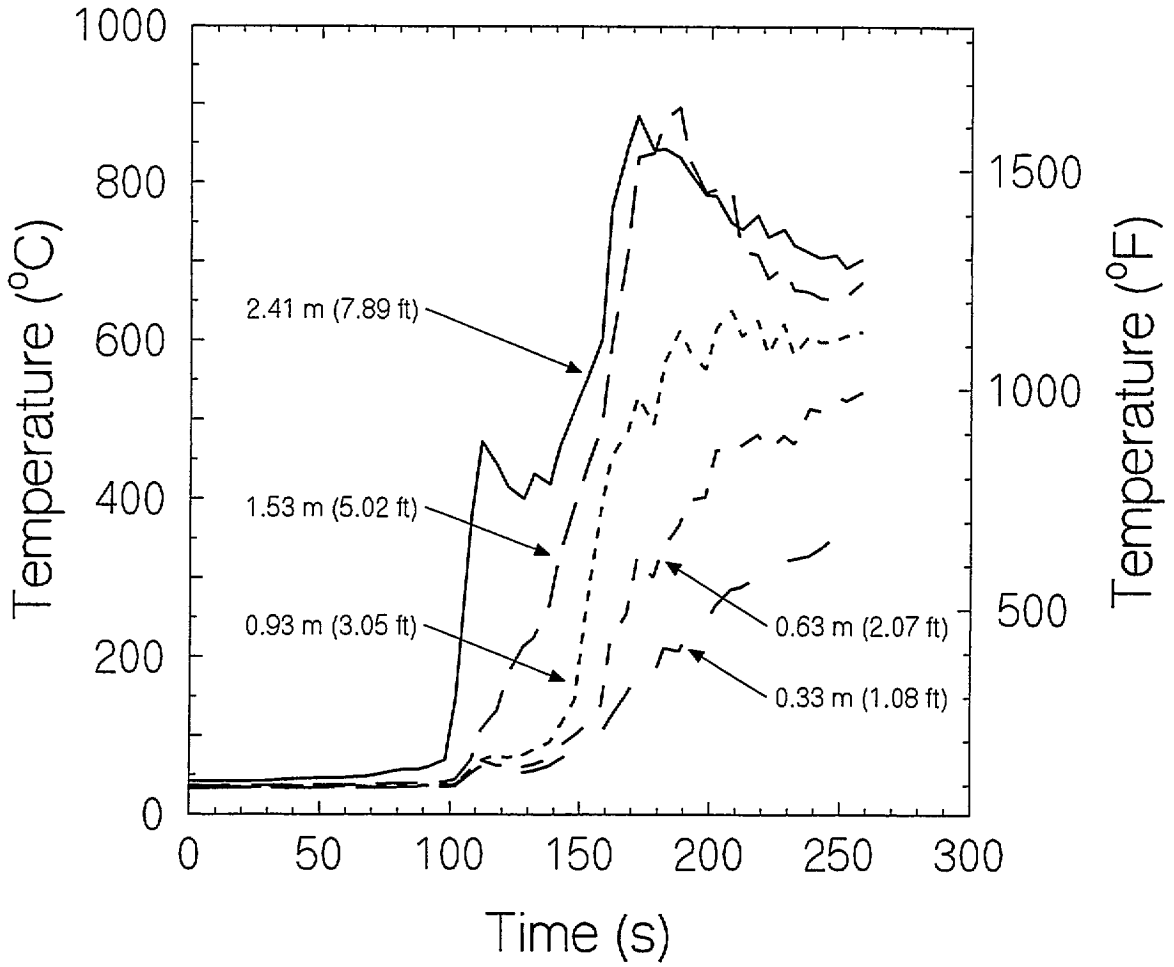

Figure 9. Bedroom temperatures, twin beds experiment (distances above floor)

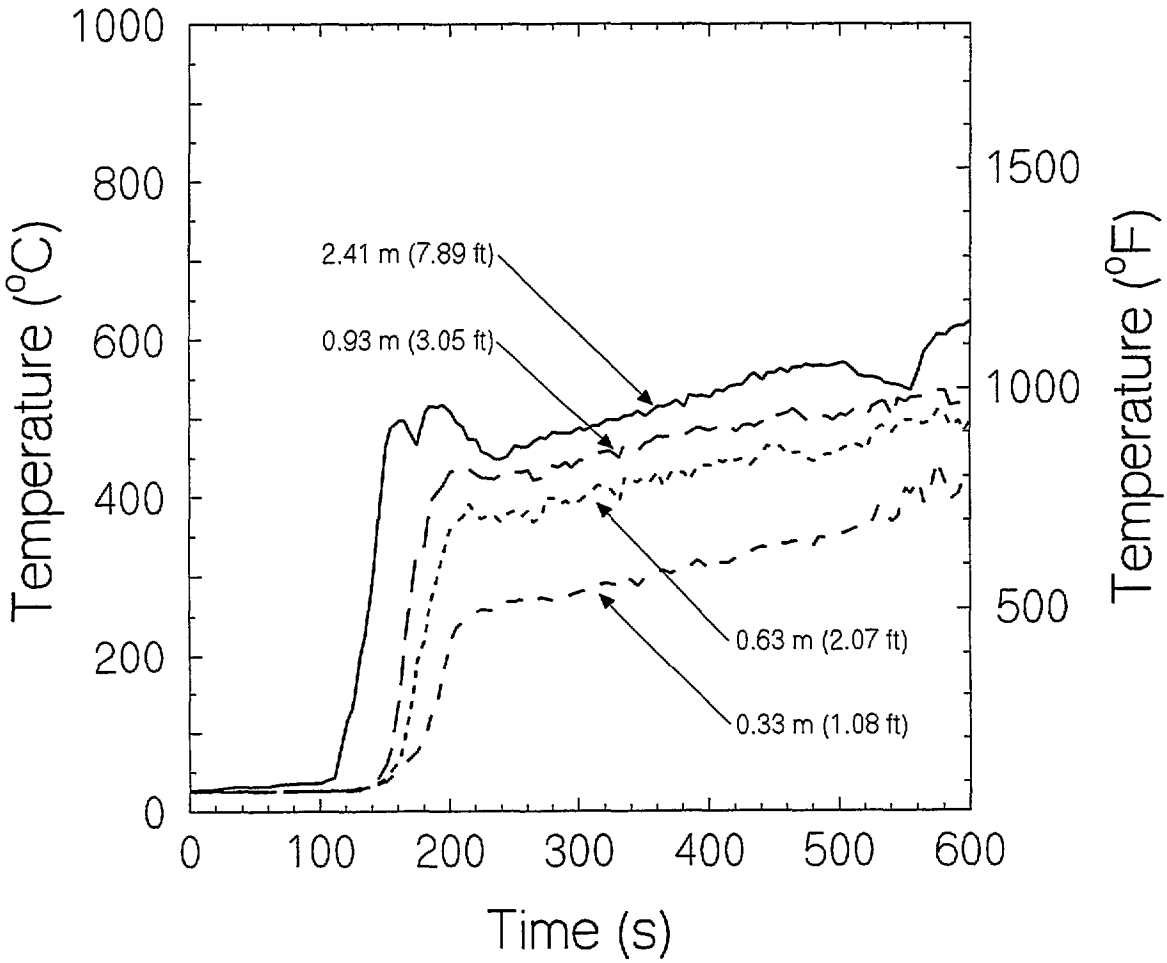

Figure 10. Bedroom temperatures, overcrowded experiment (distances above floor)

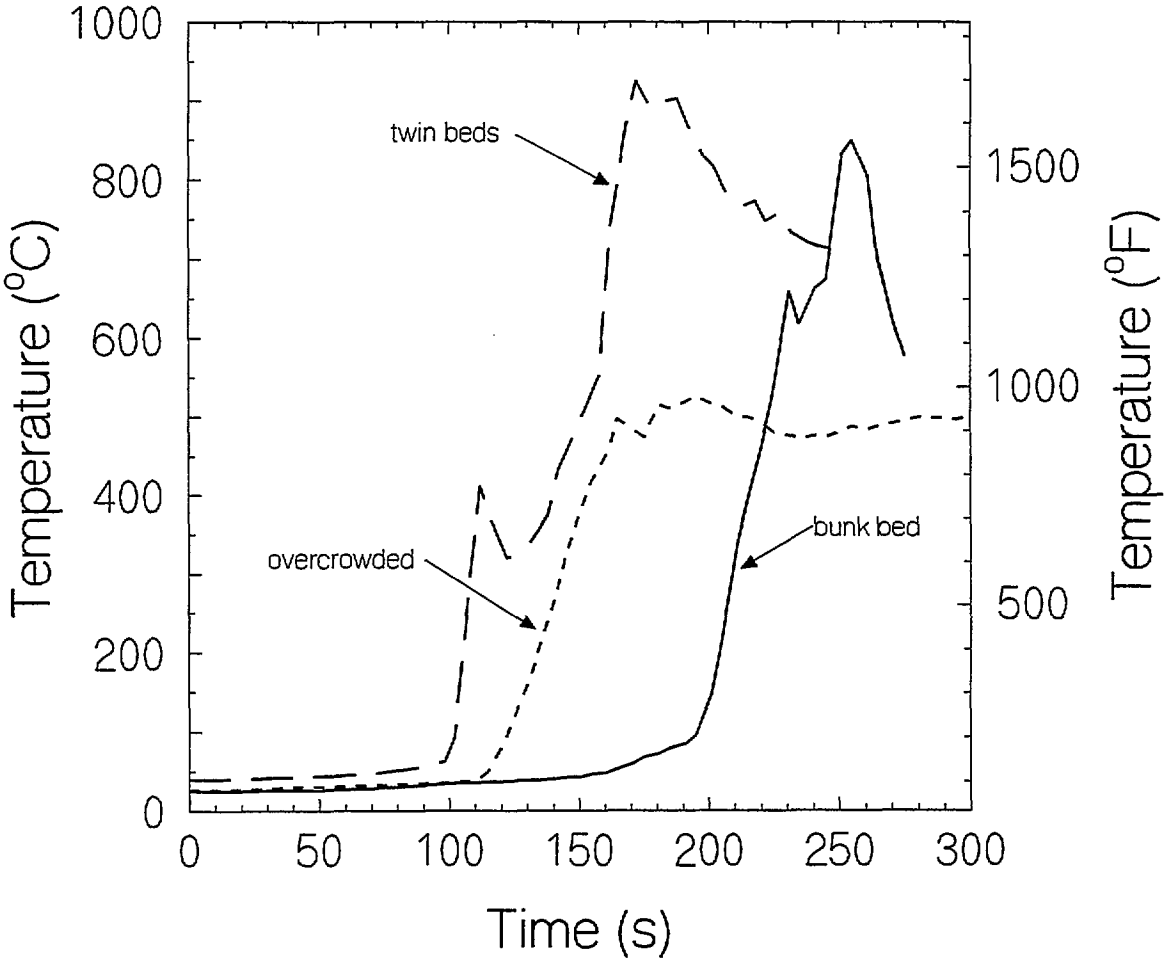

Figure 11. Average bedroom temperatures, 1.83 (6.00) to 2.43 m (7.97 ft) above the floor

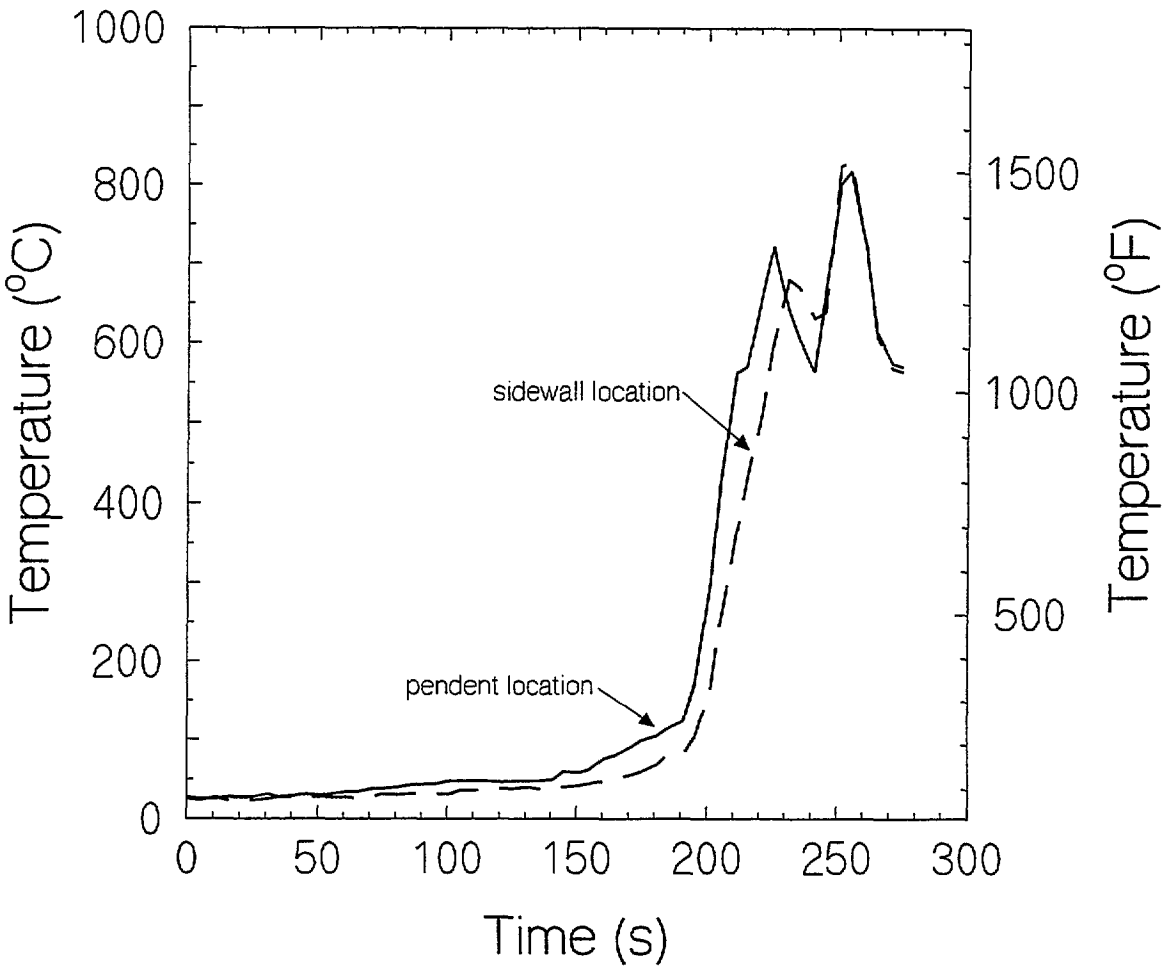

Figure 12. Sprinkler thermocouple temperatures, bunk bed experiment

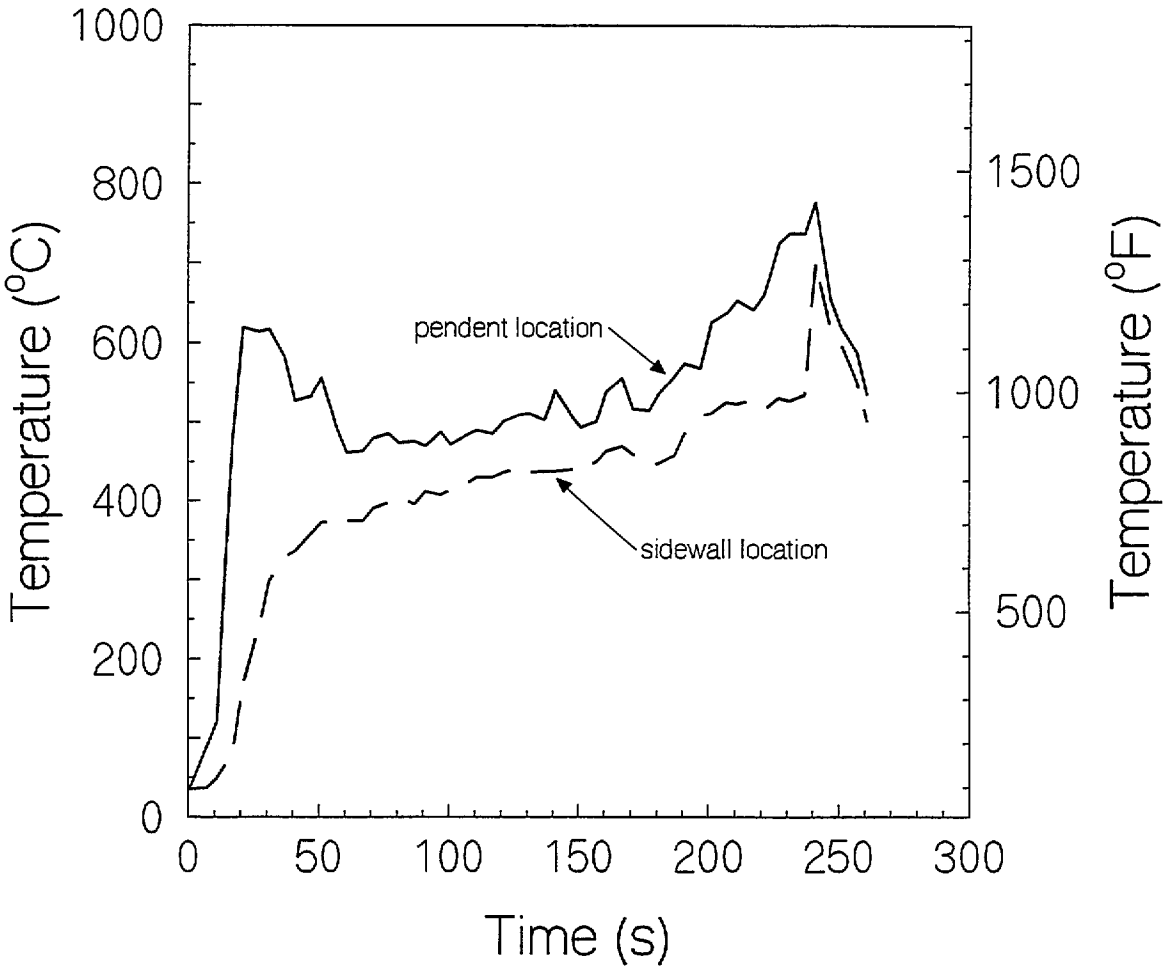

Figure 13. Sprinkler thermocouple temperatures, burner experiment

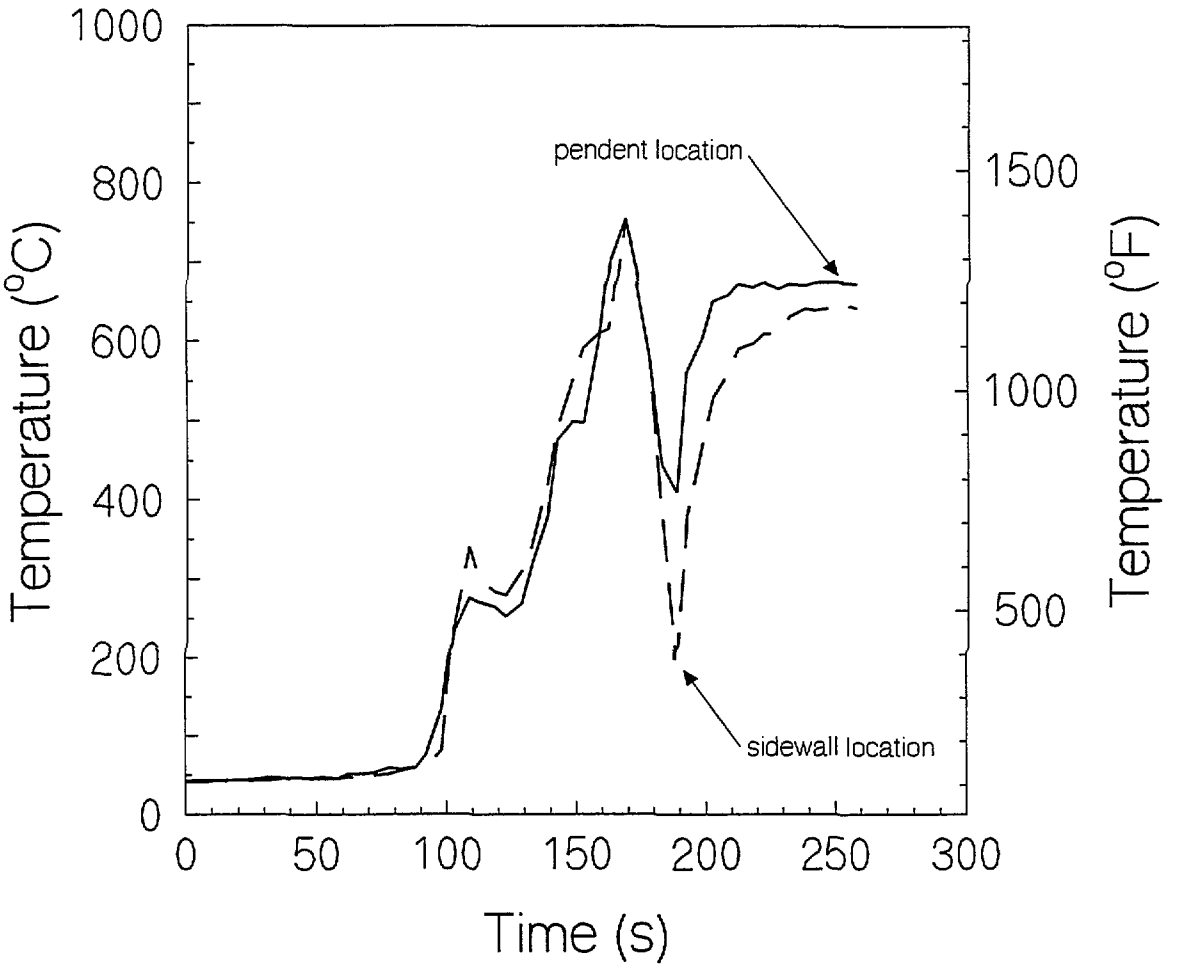

Figure 14. Sprinkler thermocouple temperatures, twin beds experiment

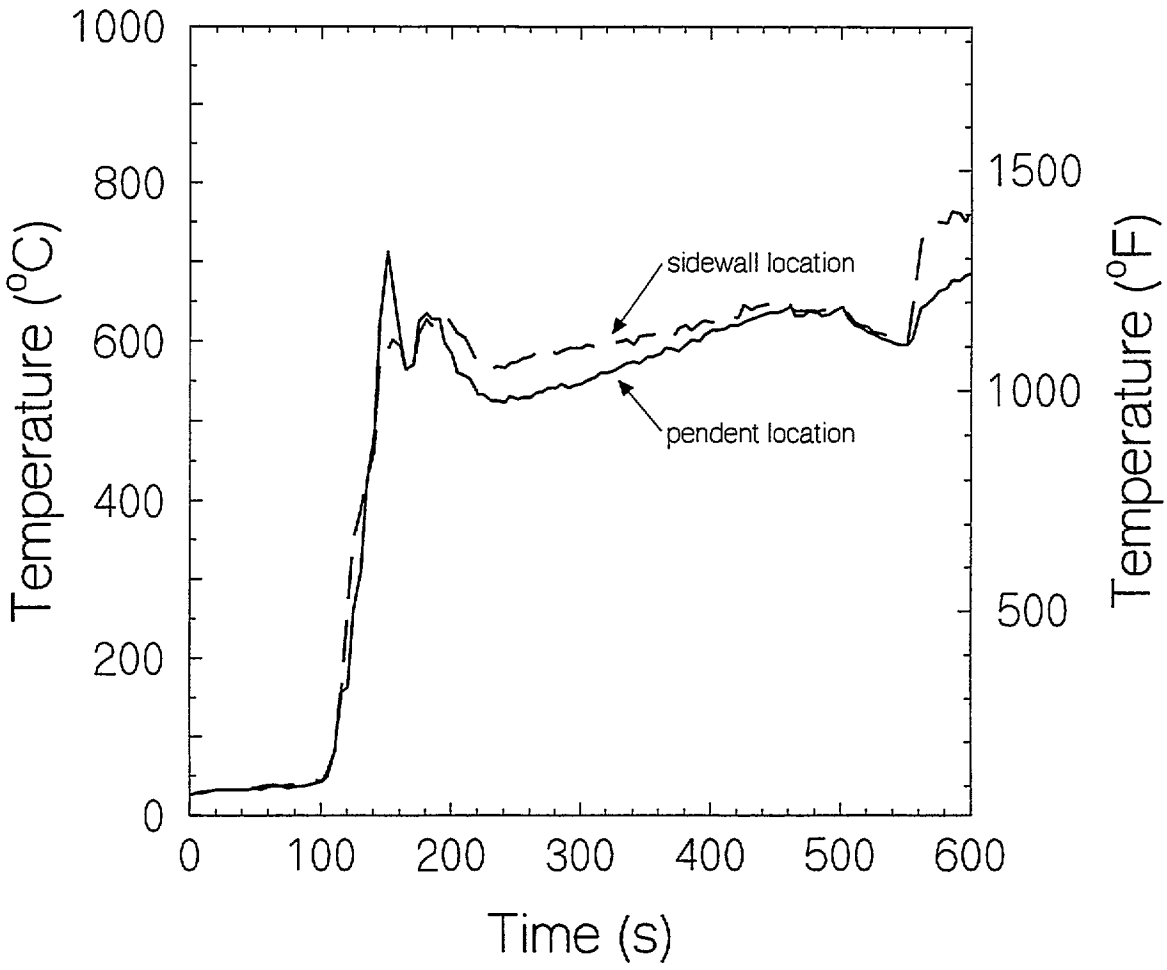

Figure 15. Sprinkler thermocouple temperatures, overcrowded experiment

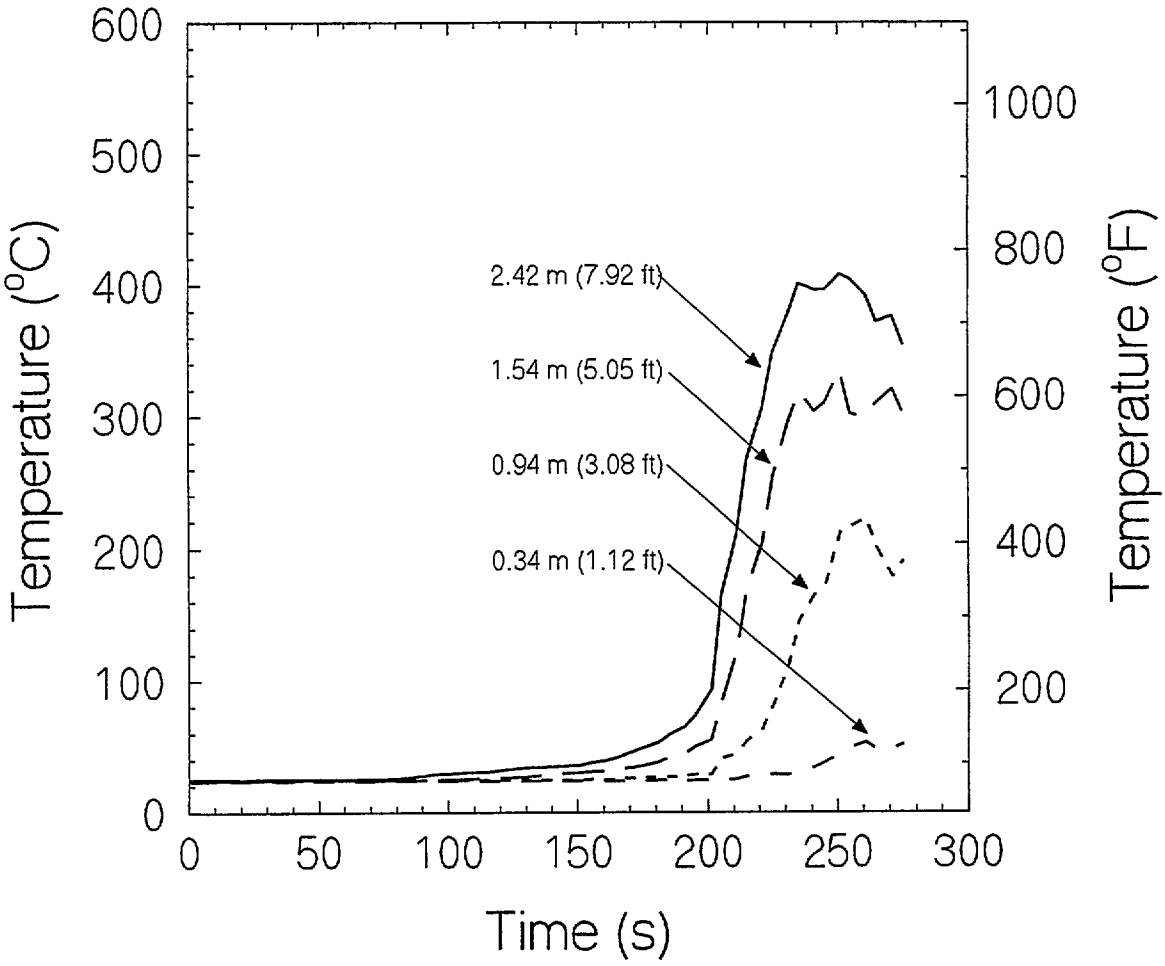

Figure 16. Hall temperatures, bunk bed experiment (distances above floor)

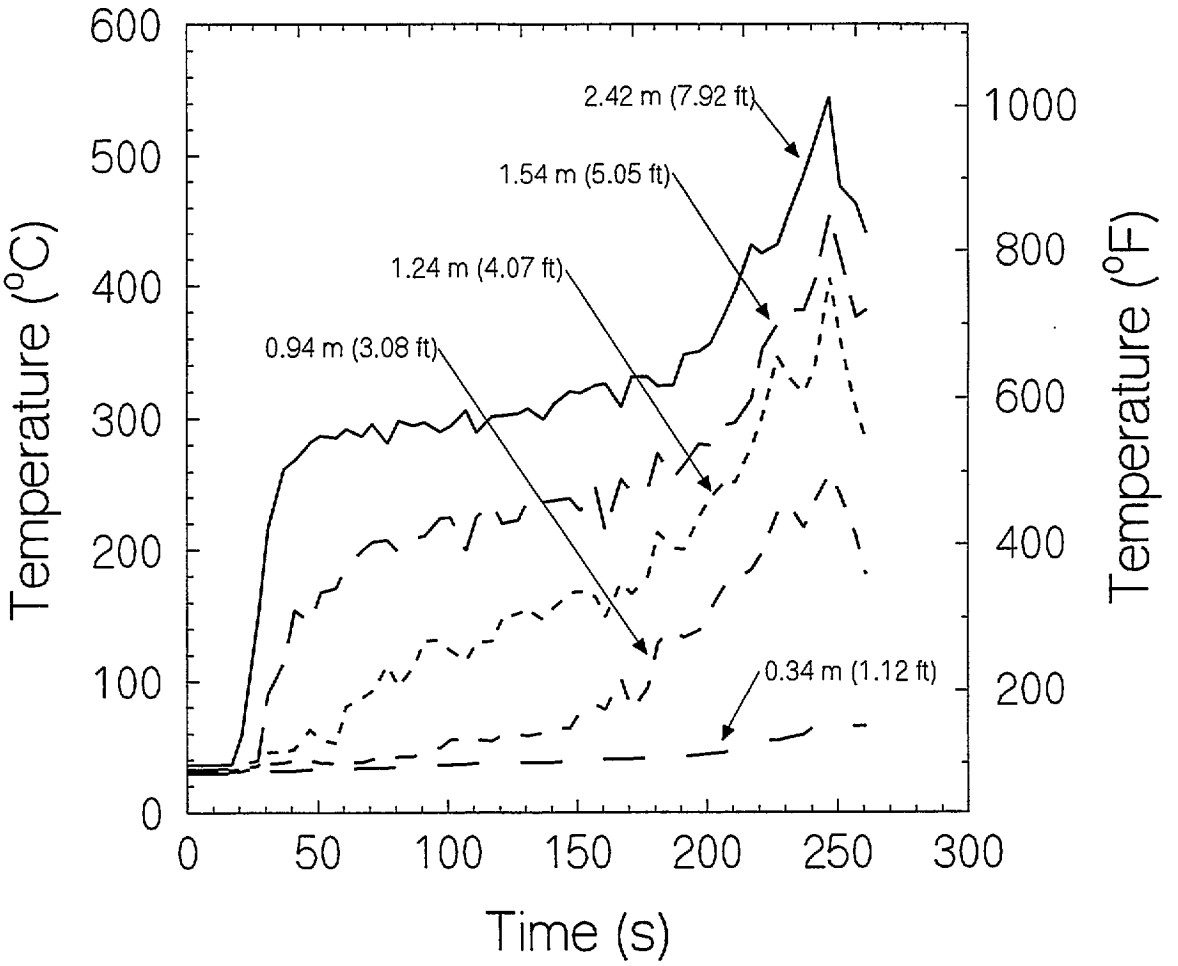

Figure 17. Hall temperatures, burner experiment (distances above floor)

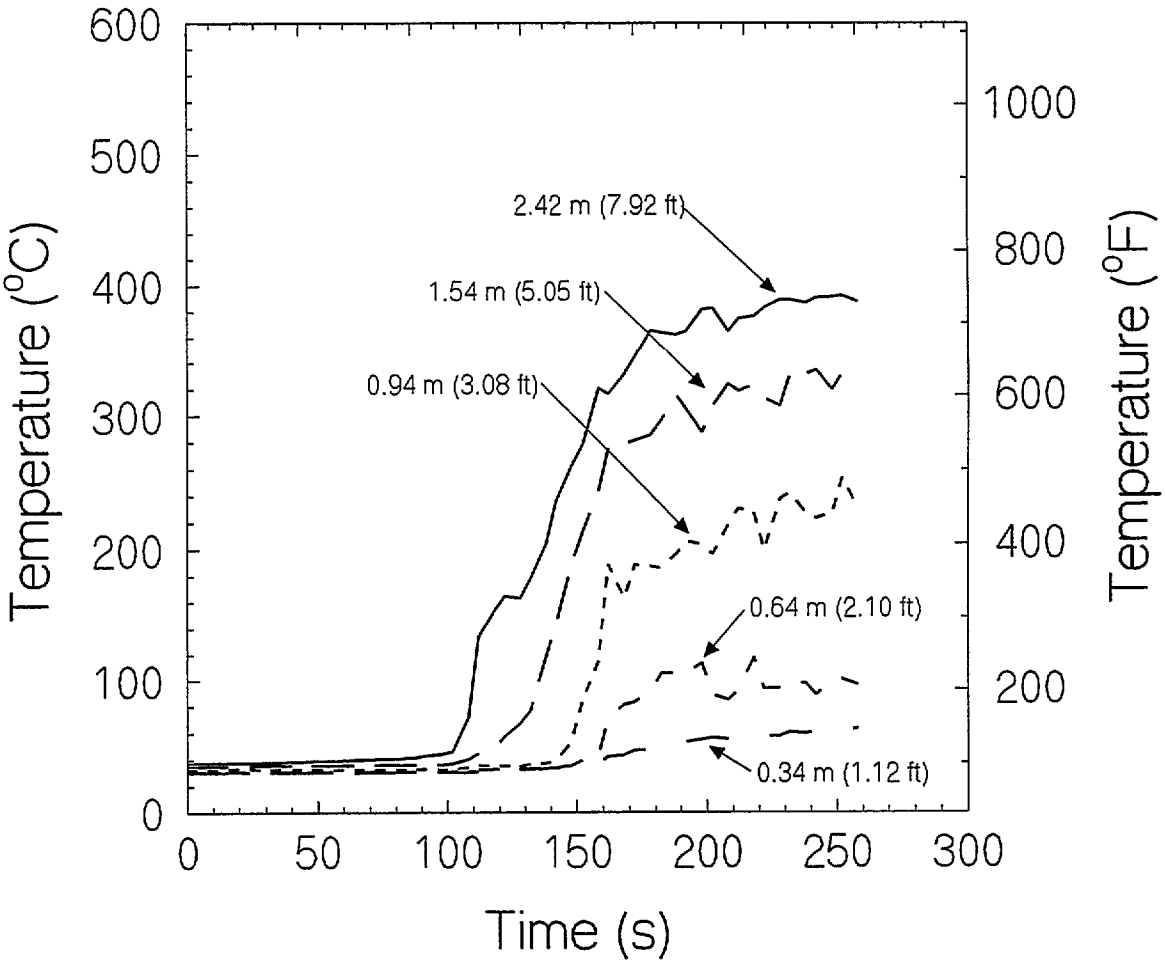

Figure 18. Hall temperatures, twin beds experiment (distances above floor)

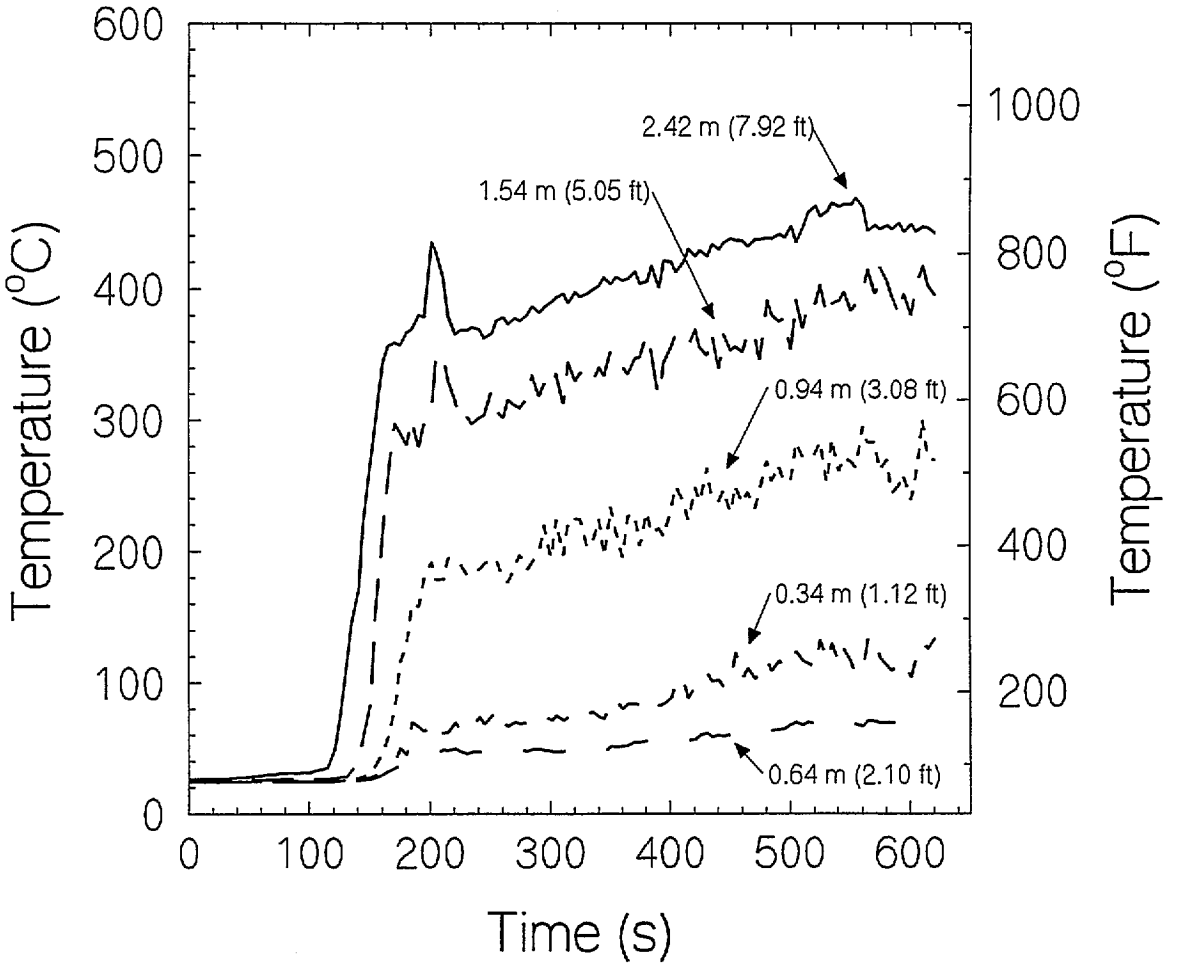

Figure 19. Hall temperatures, overcrowded experiment (distances above floor)

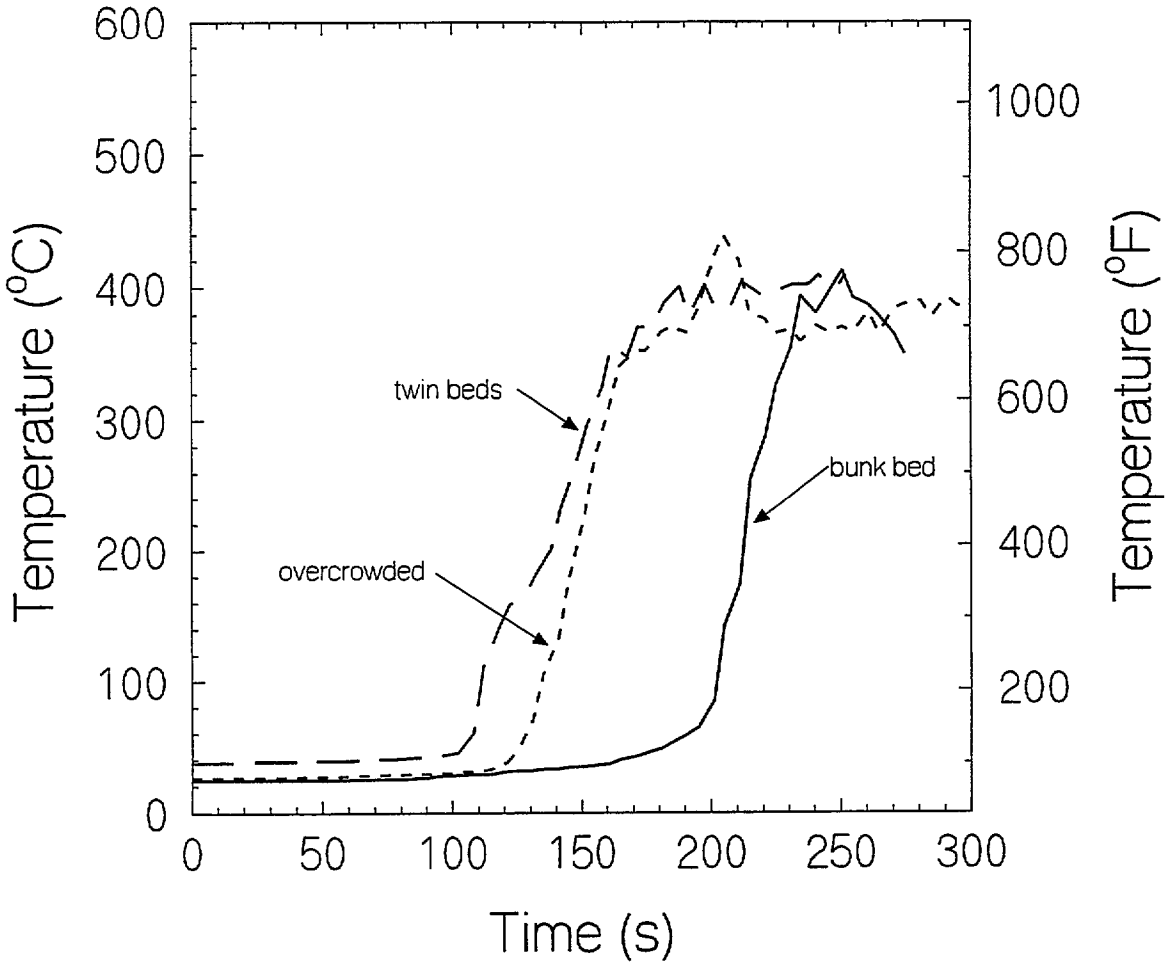

Figure 20. Average hall temperatures, 1.84 (6.04) to 2.44 m (8.01 ft) above the floor

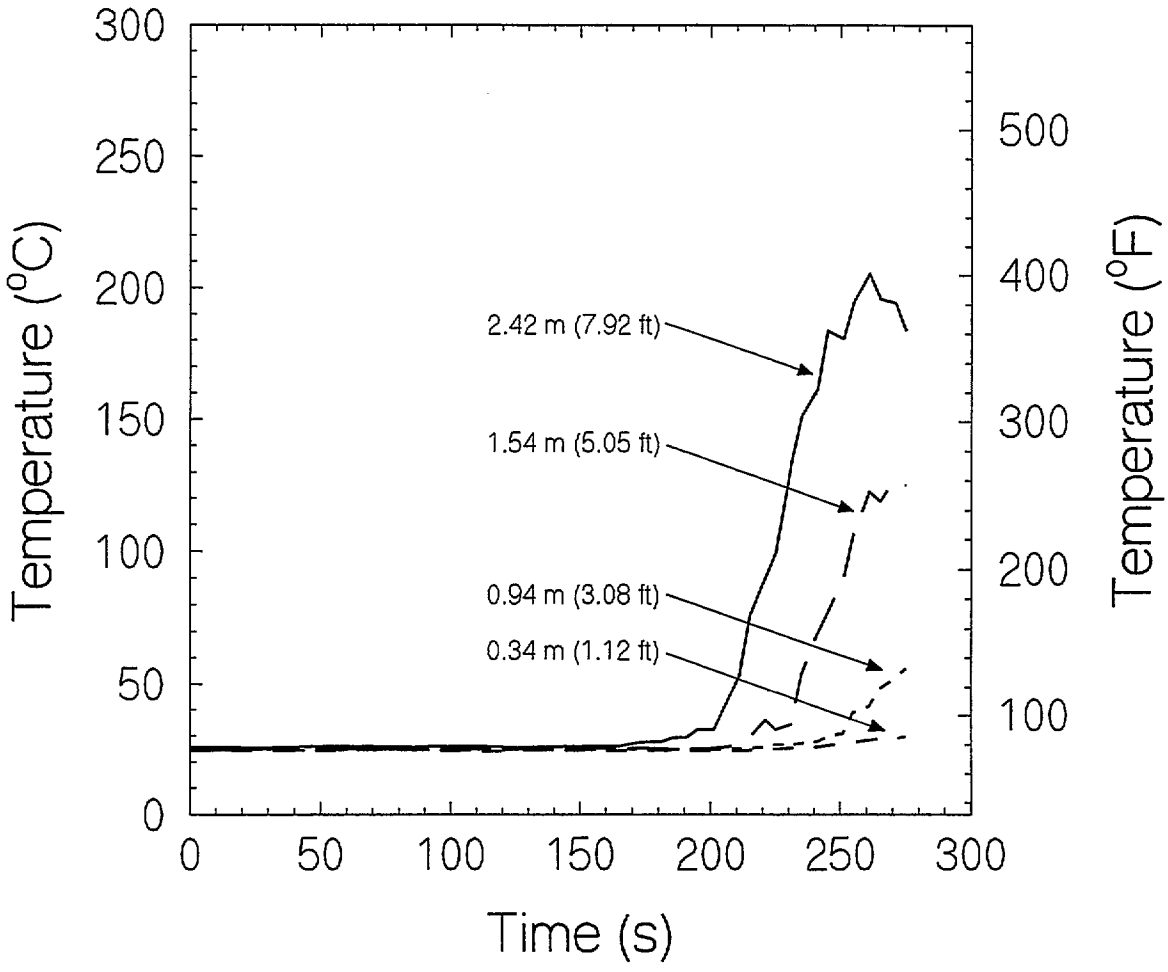

Figure 21. Living room temperatures, bunk bed experiment (distances above floor)

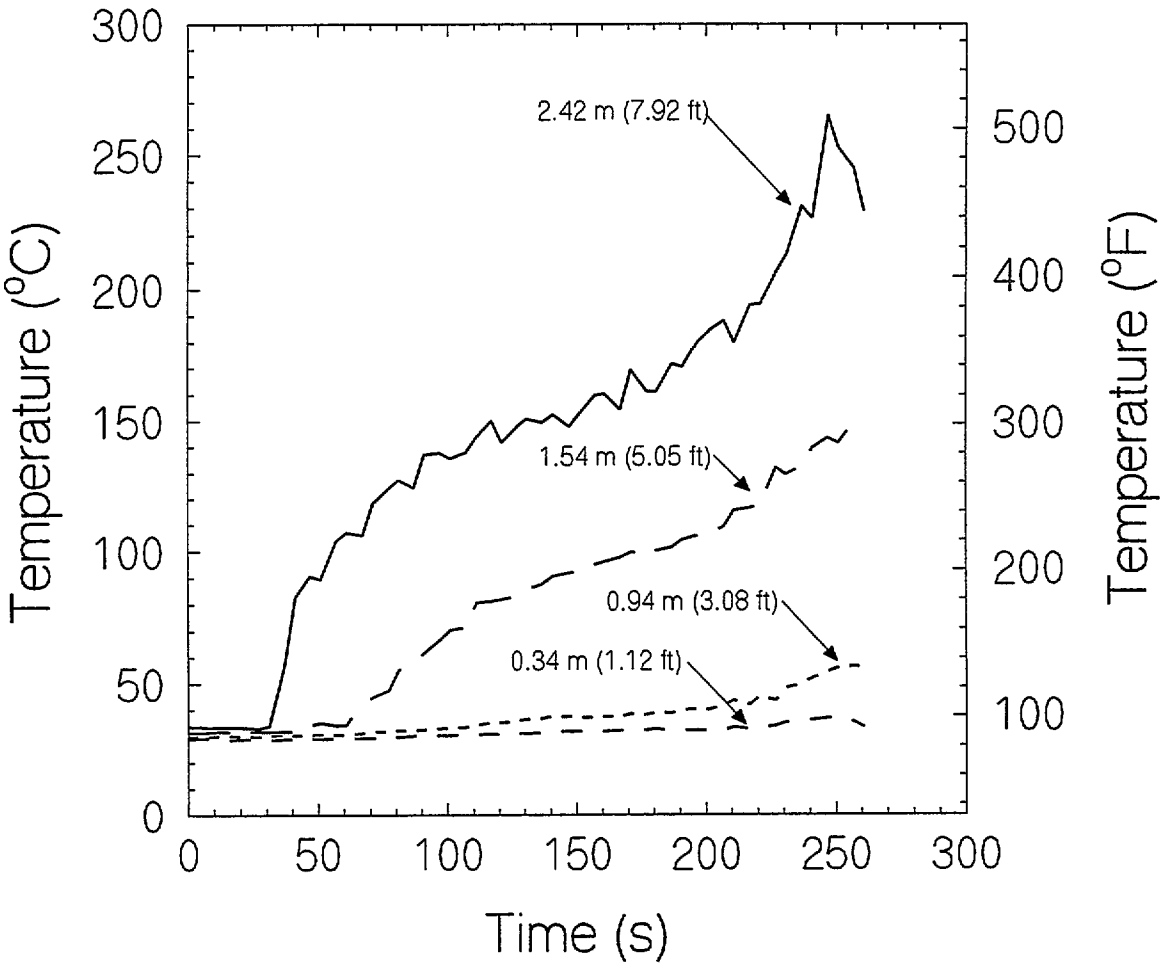

Figure 22. Living room temperatures, burner experiment (distances above floor)

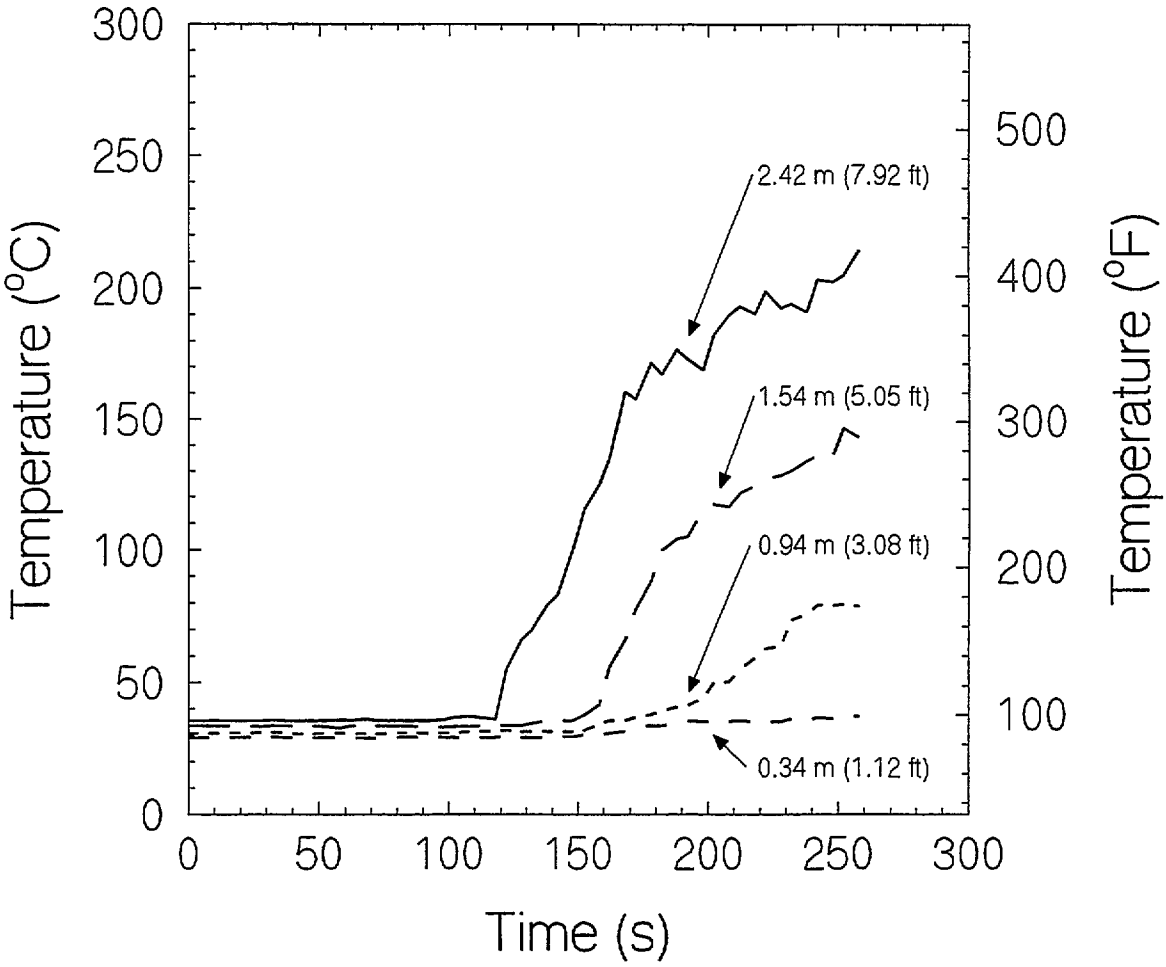

Figure 23. Living room temperatures, twin beds experiment (distances above floor)

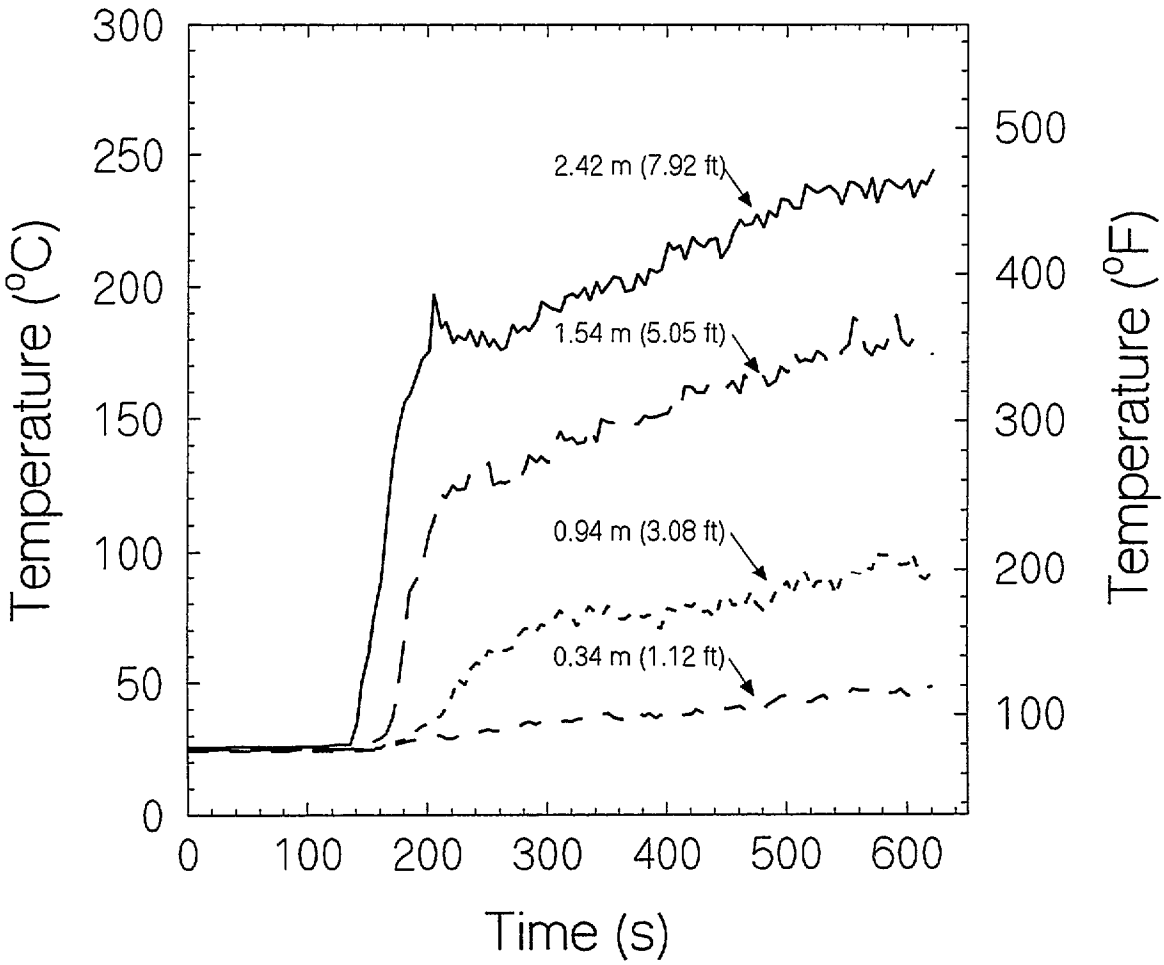

Figure 24. Living room temperatures, overcrowded experiment (distances above floor)

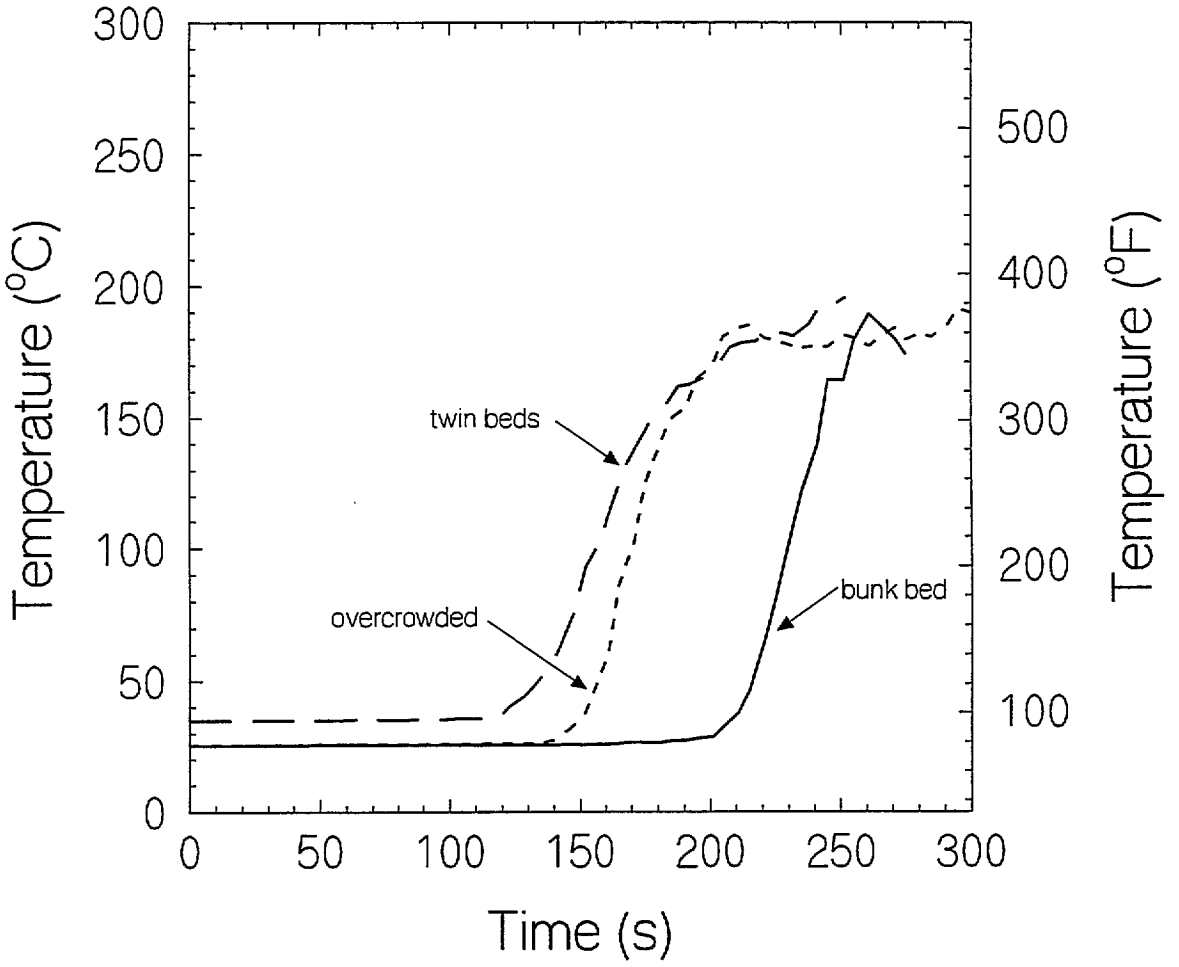

Figure 25. Average living room temperatures, 1.84 (6.04) to 2.44 m (8.01 ft) above the floor

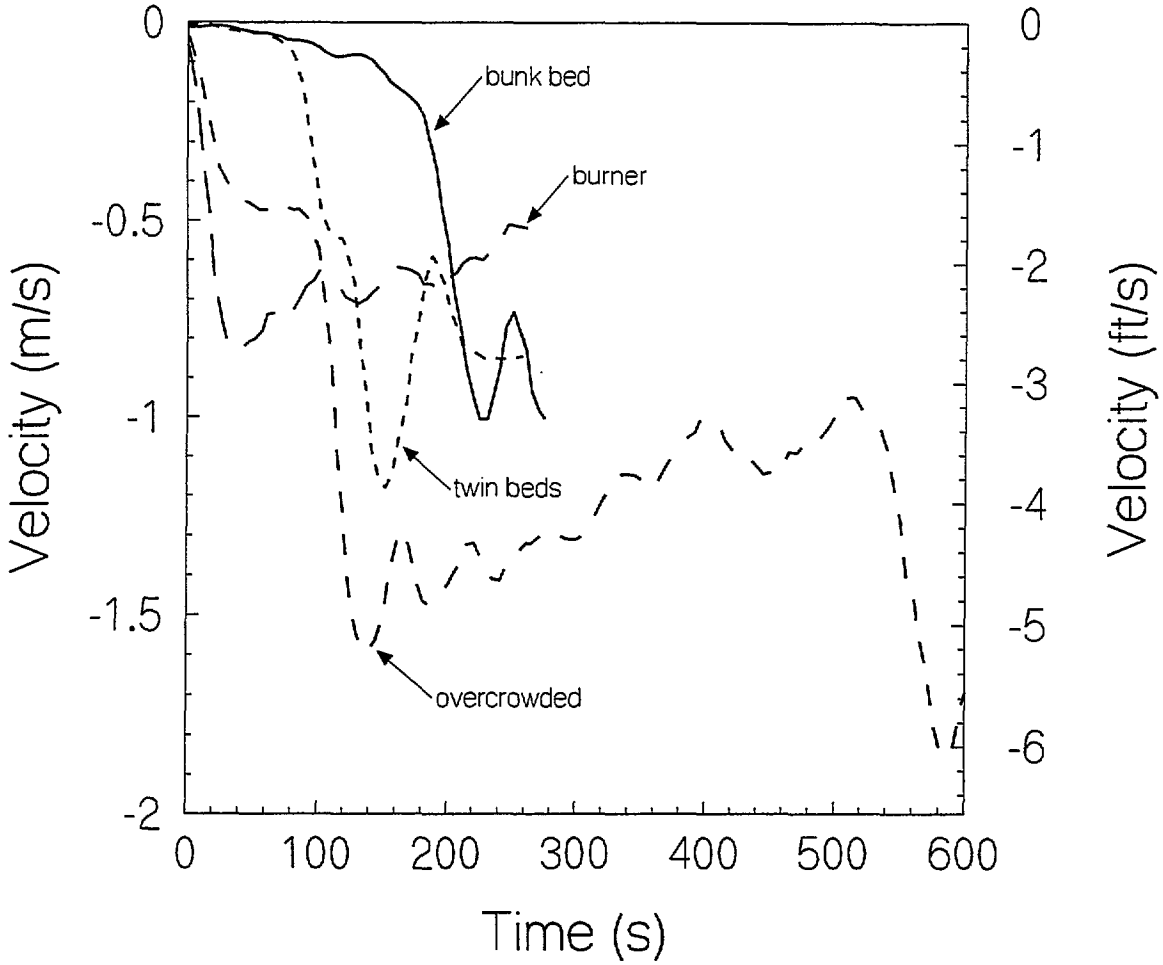

Figure 26. Vertical wall jet velocity. Upward flows are positive

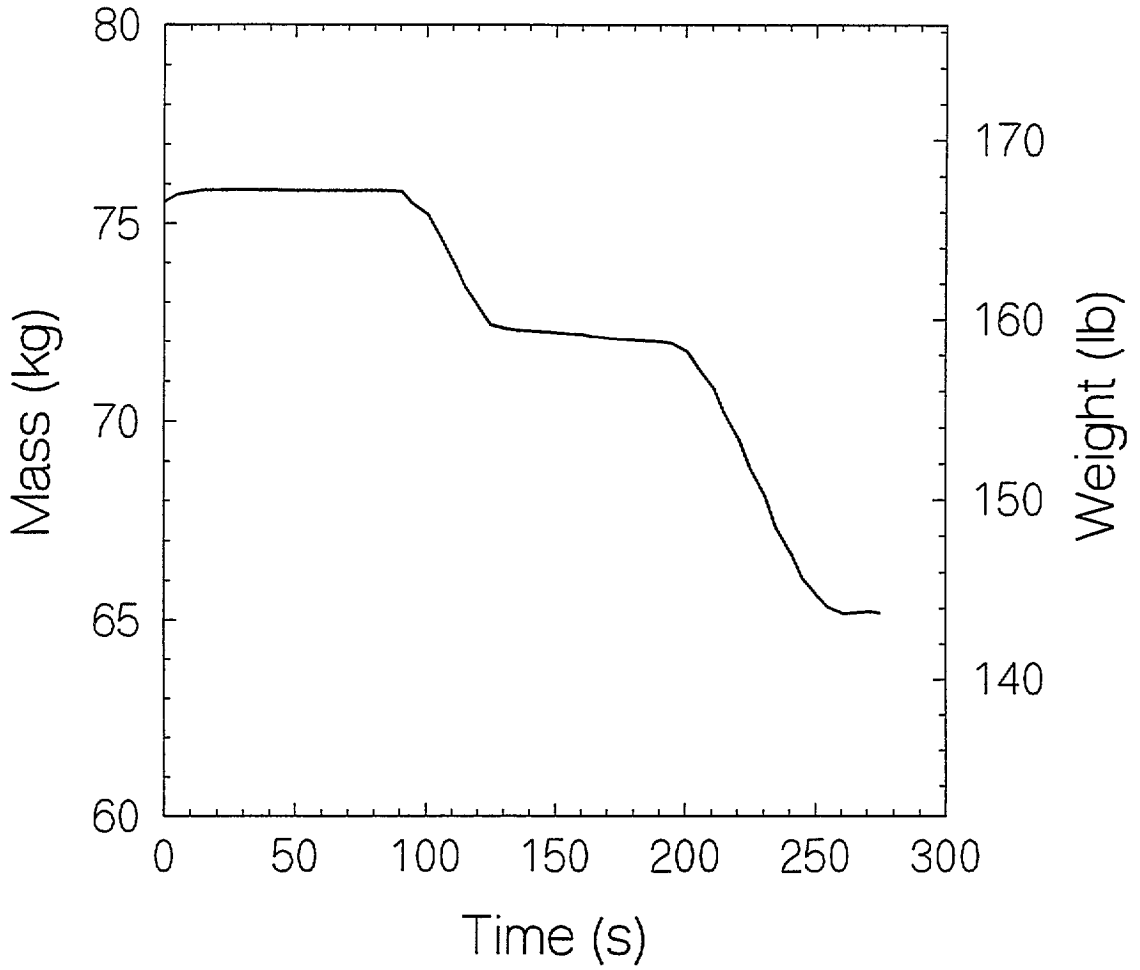

Figure 27. Bunk bed mass, bunk bed experiment

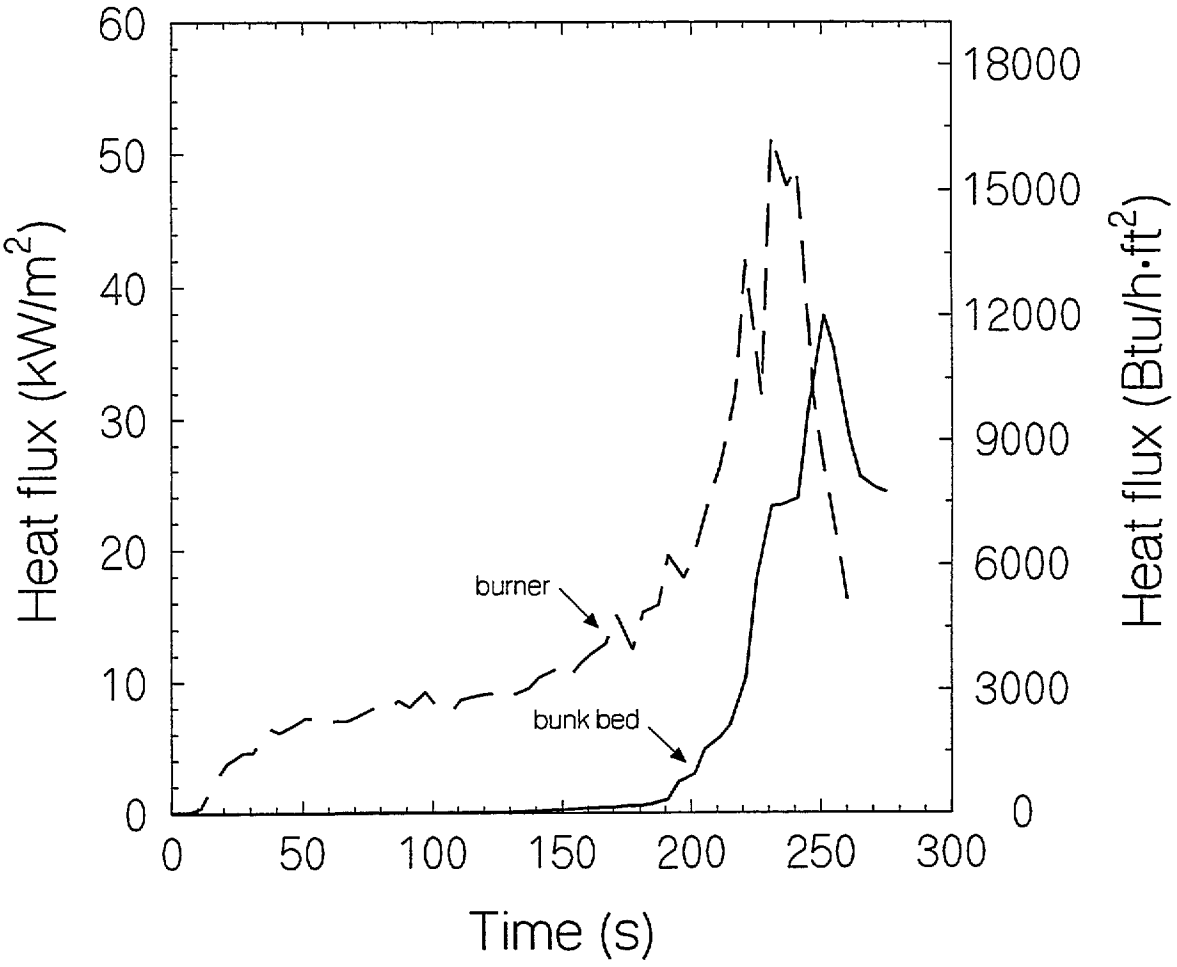

Figure 28. Bedroom floor, total heat flux

3.0 BEDROOM EXPERIMENTS AT 1315 SOUTH BRISTOL STREET

The two experiments addressed in this section occurred on July 12 and 13, 1994, at 1315 South Bristol Street. The measurements included: temperatures within various rooms, temperatures of window glass, fuel mass during burning, smoke detector activation time, sprinkler activation time, and time to full room involvement. Data were recorded every 5 seconds with a computerized acquisition system.

The experiments were both conducted in the same house, with the same fire room. The instrument layout for the experiments was identical, except for the measurement of glass window temperatures. Table 8 shows the measurements conducted for each experiment.

3.1 Structure

The building used for the fire experiments was a vacant one story single family dwelling. The building was of wood frame construction, with gypsum board interior walls and ceilings. Exterior walls consisted of stucco over paper and wire mesh. The floors throughout the building, except the kitchen and bathroom, were constructed of hardwood. The floors in the kitchen and bathroom were covered with vinyl flooring.

The building had no basement, but it did have a ventilated crawl space. The pitched roof of the building consisted of several layers of asphalt shingles and tar and gravel over redwood planks.

The layout of the building is shown in figure 29, and includes three bedrooms, a bathroom, living room, kitchen, and garage. The middle bedroom served as the fire room for both experiments. All doors in the building were closed during the experiments except the middle bedroom closet, the door connecting the middle bedroom and the hall, and the exterior rear kitchen door. Windows in the fire room were covered on the inside with gypsum board during experiment 5, but were instrumented and left uncovered for experiment 6. The windows of connecting building spaces were covered with plywood.

The distance from the floor to the ceiling in the fire room was 2.43 m (7.97 ft), due to an extra layer of gypsum board installed on the ceiling to provide increased fire resistance, while the distance from the floor to the ceiling in the other rooms of the building was 2.44 m (8.01 ft). The widths of the door openings are as follows: exterior doors were 0.91 m (36 in), interior doors were 0.76 m (30 in), and closet doors were 0.61 m (24 in). The heights of the door openings were 2.03 m (80.0 in). The standard uncertainties in the ceiling height and door opening dimensions are estimated at $\pm$ 0.01 m ($\pm$ 0.4 in).

3.2 Fuel Load

The fire rooms were furnished by the Santa Ana Fire Department to simulate typical "standard" fuel load conditions ranging from approximately 83 kg to 204 kg of combustible furnishings. Fuel load is defined as the mass of fuel found in a room, divided by the floor area of the room. The standard fuel loading is a qualitative measure that represents the experiences of fire fighters in the Santa Ana city fire department.

The total fuel load for each experiment, and the masses of the individual components are listed in tables 9 and 10, with an estimated standard uncertainty of 10% for the scale used in the experiments. Note that experiment 5 is called the "bunk beds" experiment, and experiment 6 is called the "twin beds" experiment. Figures 30 and 31 show the locations of the furniture in each experiment.

The ignition source for each fire was a plastic waste basket with nominal overall dimensions of 255 mm high by 255 mm wide by 188 mm deep (10.0 in x 10.0 in x 7.4 in). The waste basket contained a total of eight 2 quart waxed cardboard milk cartons. Two cartons were placed vertically in the basket, with another placed inside each of the two forming two double layered vertically oriented open cartons. Inside each of the vertical cartons were placed the torn pieces, nominally 1.0×10^3 mm^2 (1.6 in^2), from two identical cartons. The waste basket was ignited by removing one torn piece from each of the two vertical cartons, igniting it, and dropping it into the carton.

3.3 Smoke Detector Response

A smoke detector was installed in the hallway outside the bedrooms according to NFPA 72, *National Fire Alarm Code*. The detector was a single station, battery powered, UL listed, ionization type smoke detector. The activation time for the smoke detector was recorded manually by an observer equipped with a stop watch. The location of the smoke detector is shown in figure 32.

3.4 Sprinkler Actuation

To measure the activation times of typical residential type sprinklers, one pendent sprinkler was installed in the ceiling of the fire room, and one sidewall sprinkler was installed on the wall of the fire room. It should be noted that either a single sidewall or pendent sprinkler would be sufficient for this room if a residential sprinkler system was installed in this house according to NFPA 13D, *Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes,* and the sprinklers's listing.

The sprinklers had glass bulb elements with activation temperatures of 68 °C (155 °F). Each sprinkler was connected to a pressure switch with copper tubing. The tubing was pressurized with approximately 210 kPa (30 psi) of air pressure. When a sprinkler actuated, the signal was recorded on the data acquisition system, and timed via an indicator light.

In addition to the sprinklers installed for the measurement of activation time, an additional sidewall sprinkler, attached to a manually controlled water supply, was installed in the fire room for safety purposes. Water was applied through the sprinkler for approximately 15 seconds at the end of the experiments before manual fire fighting.

The locations of the various sprinklers are shown in figure 32. The center of the sidewall sprinkler was 0.13 m (4.9 in) from the ceiling, with the deflector positioned 0.07 m (2.8 in) from the wall. The deflector of the pendent sprinkler was 0.07 m (2.8 in) from the ceiling. The standard uncertainties in the sprinkler locations are estimated at ± 0.01 m (± 0.4 in).

3.5 Temperature Measurement

The temperatures were measured with 0.51 mm (0.02 in) nominal diameter bare bead, type K thermocouples. The floor to ceiling thermocouple arrays were in the bedroom, hallway, and living room as shown in figure 32. The elevations of the thermocouples above the floor are given in table 11 for the bedroom, and in table 12 for the hallway and the living room.

Thermocouples were positioned within 20 mm (0.79 in) of the pendent and sidewall sprinklers used to measure activation time. A thermocouple was also placed within a sheet of crumpled newspaper on the floor of the front bedroom. This thermocouple was used to detect ignition of the newspaper, an indication that full room involvement had occurred.

One of the fire room windows in the twin beds experiment was instrumented with thermocouples. The type K thermocouples were attached to the glass of the double pane window with ceramic cement. The thermocouple beads in contact with the glass had nominal diameters of 1.0 mm (0.04 in). Two of the thermocouples were attached to the interior side of the window, with the other two attached to the outside of the window. Figure 33 illustrates the positions of the thermocouples on the fire room window as seen from the inside of the building. The thermocouples are represented by the dots on the upper portion of the left window. Details of the thermocouple attachment are given in table 13, with thermocouple positions referenced to the upper right corner of the left window.

The standard uncertainty in temperature measurement is ± 2.2 °C (± 4.0 °F) as derived from the thermocouple wire manufacturer. The standard uncertainties in the thermocouple locations are estimated at ± 0.01 m (± 0.4 in).

3.6 Mass Loss Measurement

The mass of the bunk bed fuel array during the bunk beds experiment was measured using a strain gauge. One end of the strain gauge was attached to a support structure mounted on the roof. A cable attached to the other end of the strain gauge penetrated through the ceiling of the burn room and was attached to the four top corners of the bunk bed frame, suspending it above the floor. The strain gauge, calibrated to measure mass, was recorded by the data acquisition system. The standard uncertainty for the mass loss data is estimated at ± 0.1 kg (± 0.2 lb) from manufacturer data.

3.7 Results

The sequences of events for the experiments are given in table 14, with an estimated standard uncertainty of ± 2 s in the event times.

The temperatures measured within the fire rooms are shown in figures 34 and 35. The data are presented for various distances from the floor to illustrate the temperature profile within the room. The temperatures of all thermocouple locations are not plotted; a subset of thermocouples is adequate for describing the temperature trends at various elevations within the room. Data from all of the thermocouple tree temperature measurements are recorded in appendix B of this report.

The average temperatures of the region from 1.83 m (6.00 ft) above the floor to the ceiling are displayed in figure 36. The average temperature was calculated from all of the thermocouples within

the region, i.e. thermocouples 1 through 7. The thermocouple temperatures were spatially weighted due to the closer thermocouple spacing near the ceiling. The temperature of the space between the ceiling and first thermocouple was assumed equal to the temperature of the first thermocouple.

The temperatures of the thermocouples at the sprinkler locations are plotted in figures 37 and 38.

Temperatures measured within the hallway are shown in figures 39 and 40. As with the fire room, temperatures are given versus time for selected heights above the floor. The average temperatures of the region from 1.84 m (6.04 ft) above the floor to ceiling level are displayed in figure 41.

Temperatures measured in the living room are graphed in figures 42 and 43. The average temperatures of the region from 1.84 m (6.04 ft) above the floor to ceiling level are displayed in figure 44.

The temperatures measured at the thermocouple locations on the window glass of the twin beds experiment are shown in figure 45.

The mass of one bunk bed in the bunk beds experiment is illustrated in figure 46.

Table 8. Instrumentation

	Experiment	
	5	**6**
	Bunk Beds	**Twin Beds**
Temperatures	●	●
Window glass temperatures		●
Mass	●	
Smoke detector activation time	●	●
Sprinkler activation time	●	●
Time to full room involvement	●	●

Table 9. Fuel load, bunk beds experiment

Item	Mass (kg)	Weight (lb)
Load cell mattress 1	15.9	35.0
Load cell mattress 2	15.9	35.0
Mattress 3	20.4	45.0
Mattress 4	20.4	45.0
Bunk bed frame (load cell, wood)	38.0	84.0
Bunk bed frame (wood)	38.0	84.0
Bedding, bed clothes, pillows	10.0	22.0
Total	**82.6**	**182.0**

Table 10. Fuel load, twin beds experiment

Item	Mass (kg)	Weight (lb)
Twin mattress 1	14.5	32.0
Twin mattress 2	21.3	47.0
Box spring 1	21.8	48.0
Box spring 2	22.2	49.0
Bed frames (wood)	9.1	20.0
Clothing	51.7	114.0
Television set	8.2	18.0
End table	18.1	40.0
Dresser	37.2	82.0
Total	**204.1**	**450.0**

Table 11. Bedroom thermocouple elevations

Thermocouple Number	Distance From Floor (m)	Distance From Floor (ft)
1	2.41	7.89
2	2.36	7.73
3	2.28	7.48
4	2.21	7.23
5	2.13	6.99
6	1.98	6.50
7	1.83	6.00
8	1.68	5.51
9	1.53	5.02
10	1.38	4.53
11	1.23	4.04
12	1.08	3.54
13	0.93	3.05
14	0.78	2.56
15	0.63	2.07
16	0.48	1.58
17	0.33	1.08
18	0.18	0.59

Table 12. Hallway and living room thermocouple elevations

Thermocouple Number	Distance From Floor (m)	Distance From Floor (ft)
1	2.42	7.92
2	2.37	7.76
3	2.29	7.51
4	2.22	7.27
5	2.14	7.02
6	1.99	6.53
7	1.84	6.04
8	1.69	5.55
9	1.54	5.05
10	1.39	4.56
11	1.24	4.07
12	1.09	3.58
13	0.94	3.08
14	0.79	2.59
15	0.64	2.10
16	0.49	1.61
17	0.34	1.12
18	0.19	0.62

Table 13. Window mounted thermocouple locations as measured from the upper right corner of the left window

Thermocouple Number	Window Pane	Horizontal Distance mm (in)	Vertical Distance mm (in)
1	Outside	114 (4.5)	38 (1.5)
2	Inside	114 (4.5)	64 (2.5)
3	Outside	300 (11.8)	51 (2.0)
4	Inside	300 (11.8)	51 (2.0)

Table 14. Sequence of events

	Time (s) Experiment	
	Bunk Beds	**Twin Beds**
Event	**5**	**6**
Ignition	0	0
Smoke detector actuation	150	115
Pendent sprinkler actuation	203	169
Sidewall sprinkler actuation	208	198
Single pane window cracked	-	258
Both single pane windows cracked	-	280
Vertical crack in left single pane window	-	320
Right inner glass of double pane falls in	-	355
Right single pane begins to fall out	-	360
Right single pane falls completely out	-	407
Left single pane falls completely out	-	415
Transition to full room involvement	262	424
Right outer glass of double pane cracked	-	440
End of experiment	352	465

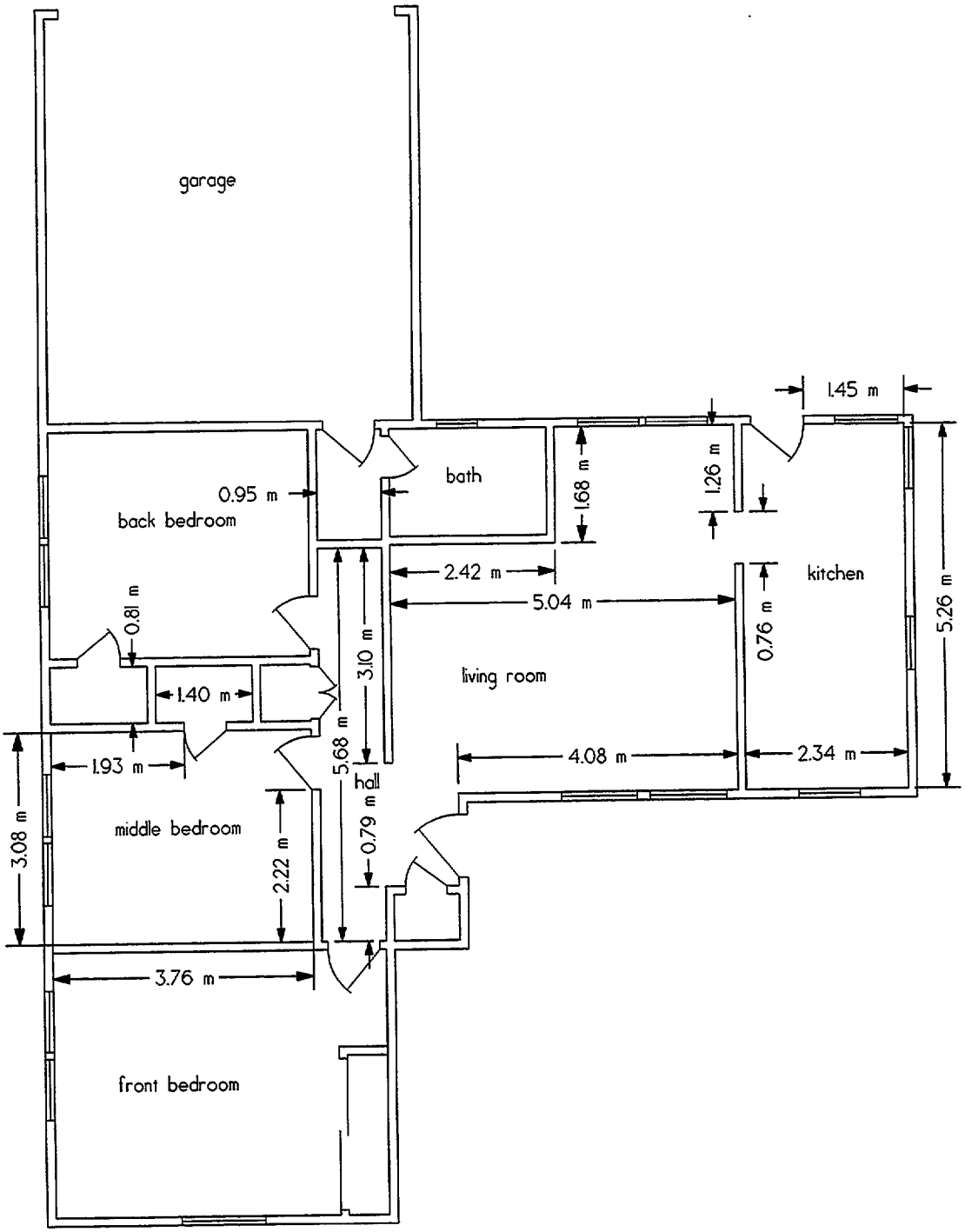

Figure 29. Plan view of the structure

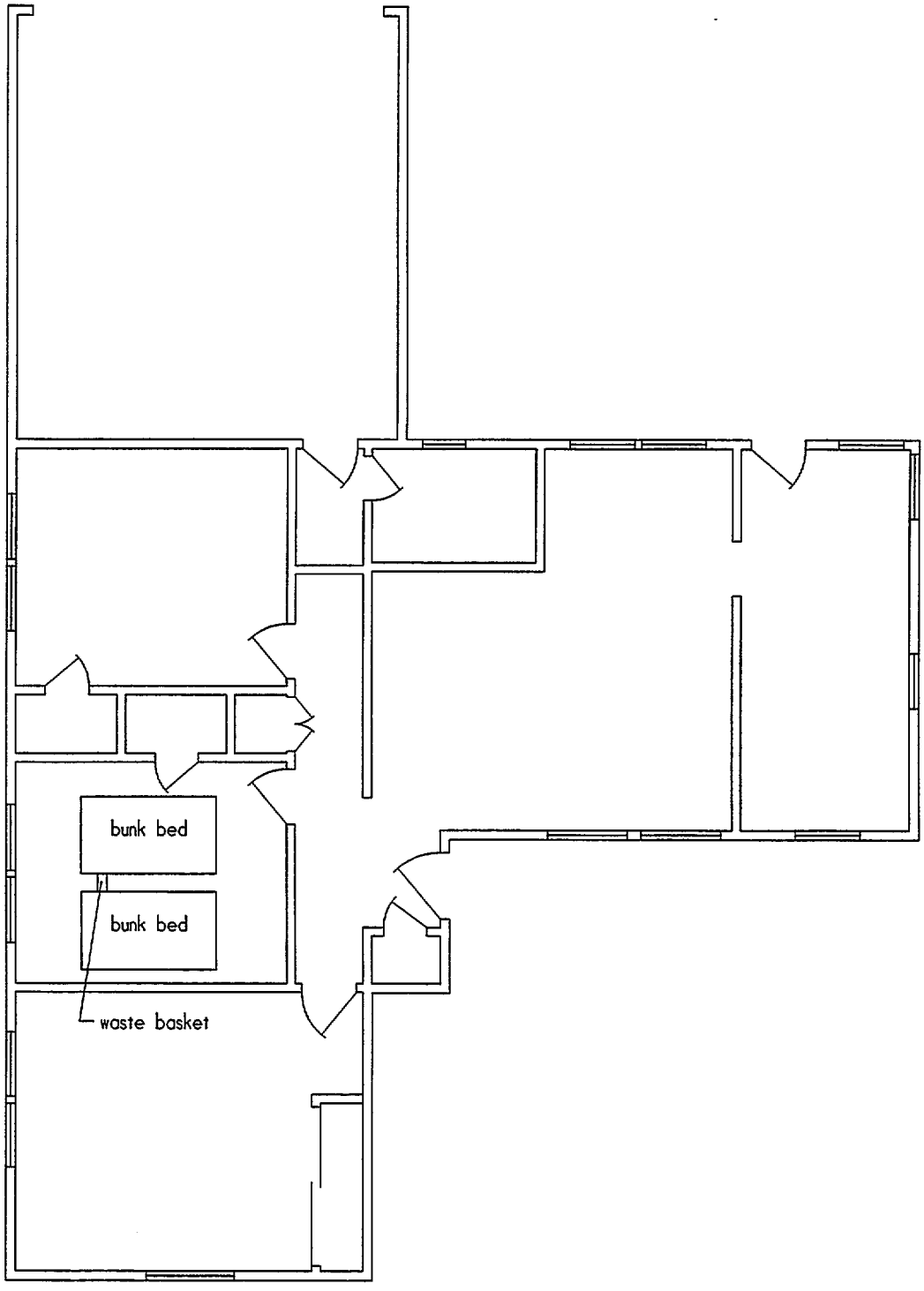

Figure 30. Plan view of the bedroom with fuel packages, bunk beds experiment

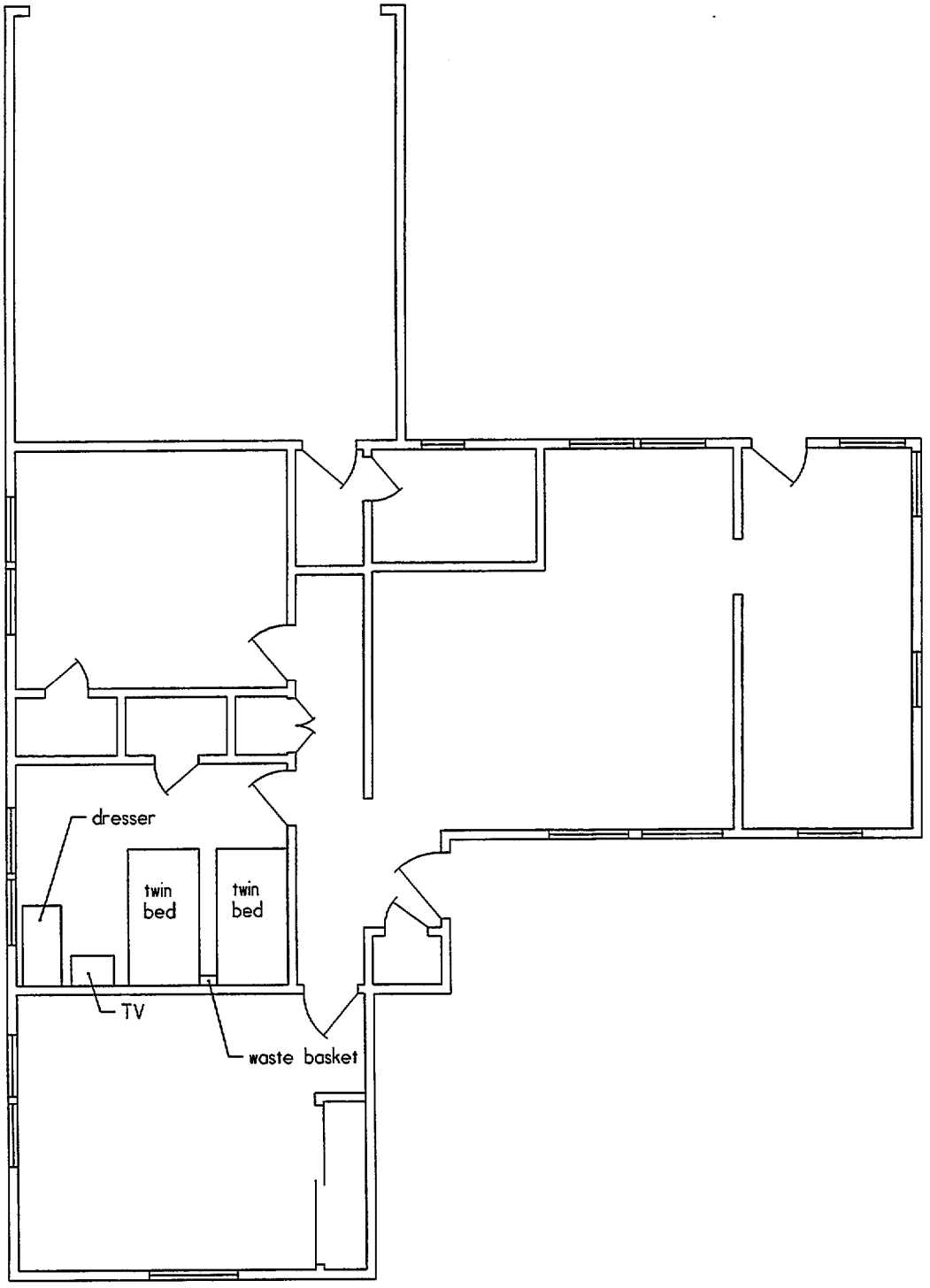

Figure 31. Plan view of the bedroom with fuel packages, twin beds experiment

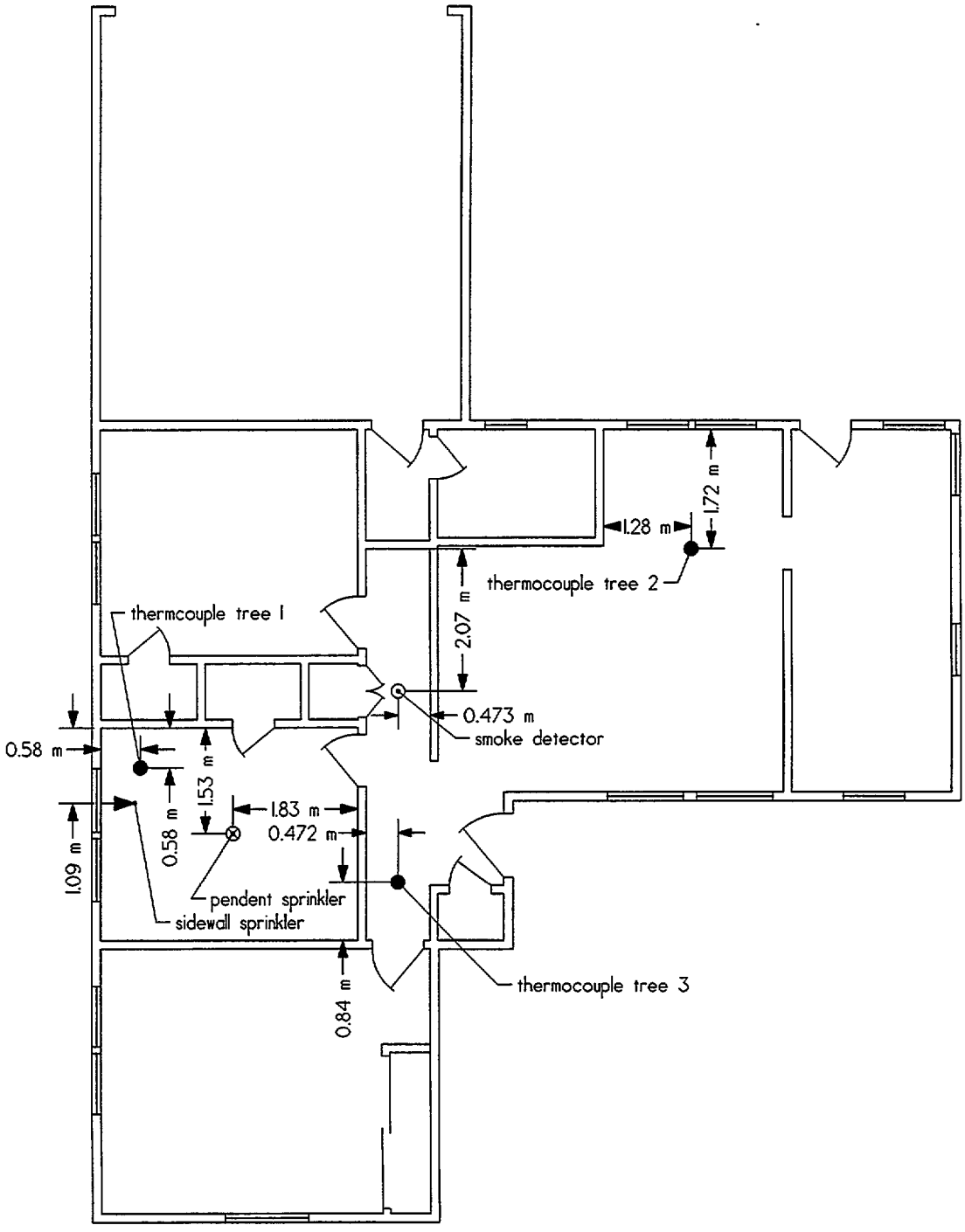

Figure 32. Plan view of the structure with instrumentation

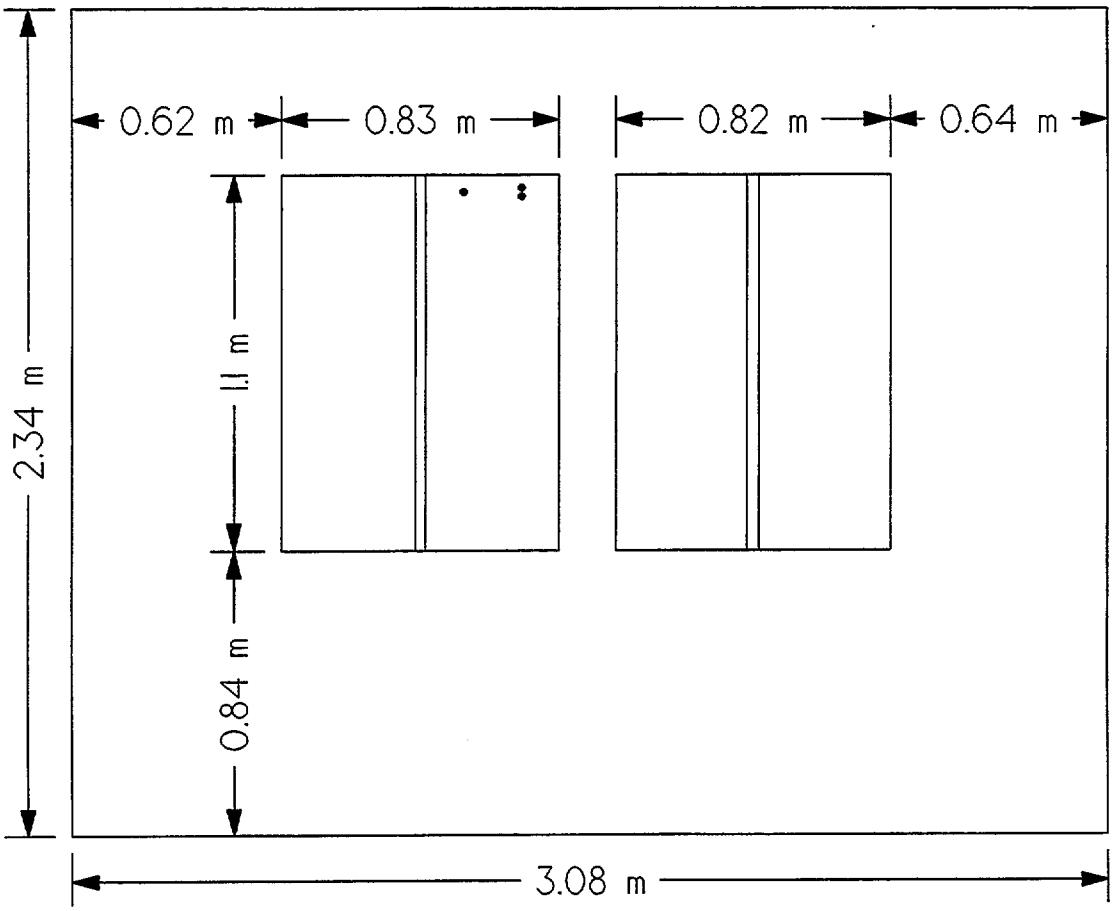

Figure 33. Elevation view of the fire room windows as seen from inside the building, bunk beds experiment, filled circles represent thermocouples

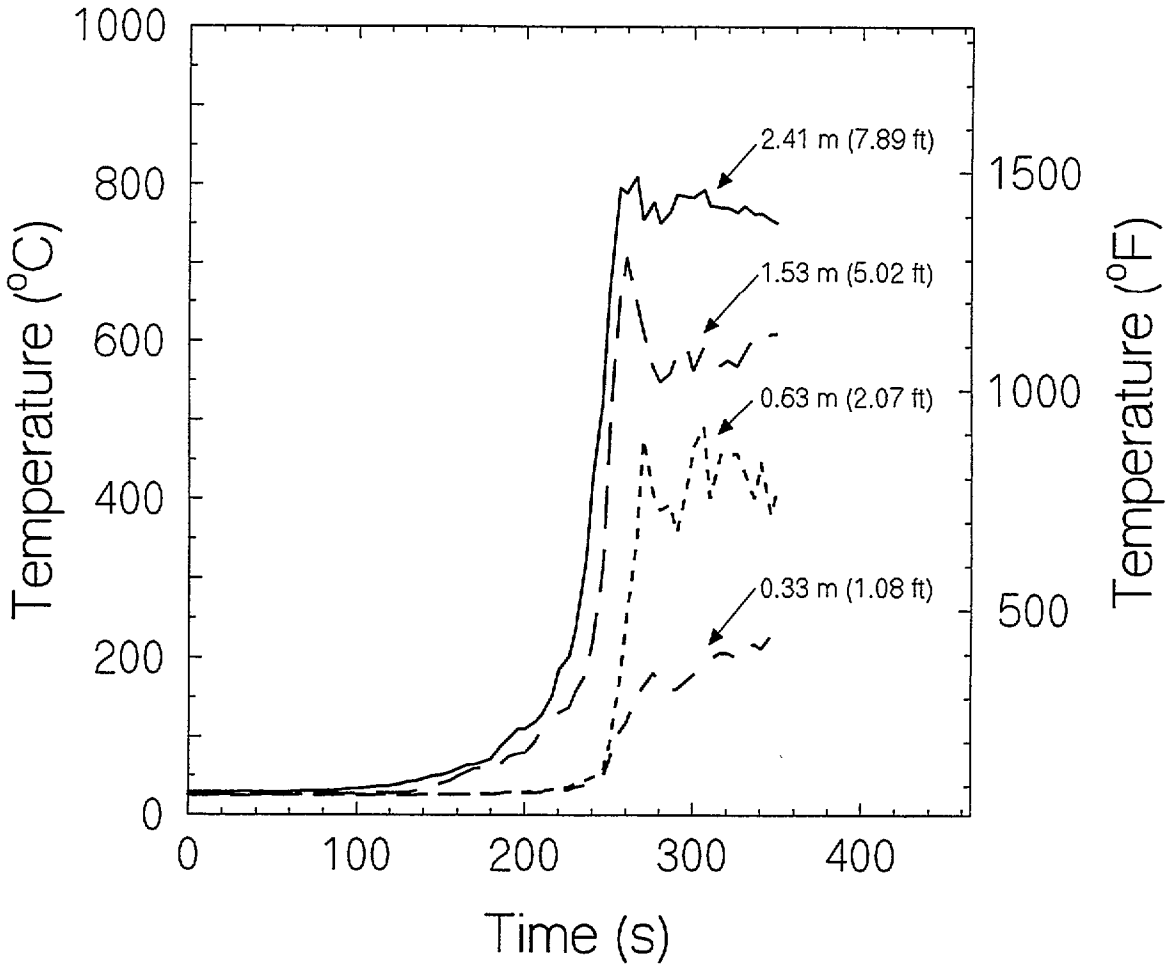

Figure 34. Bedroom temperatures, bunk beds experiment (distances above floor)

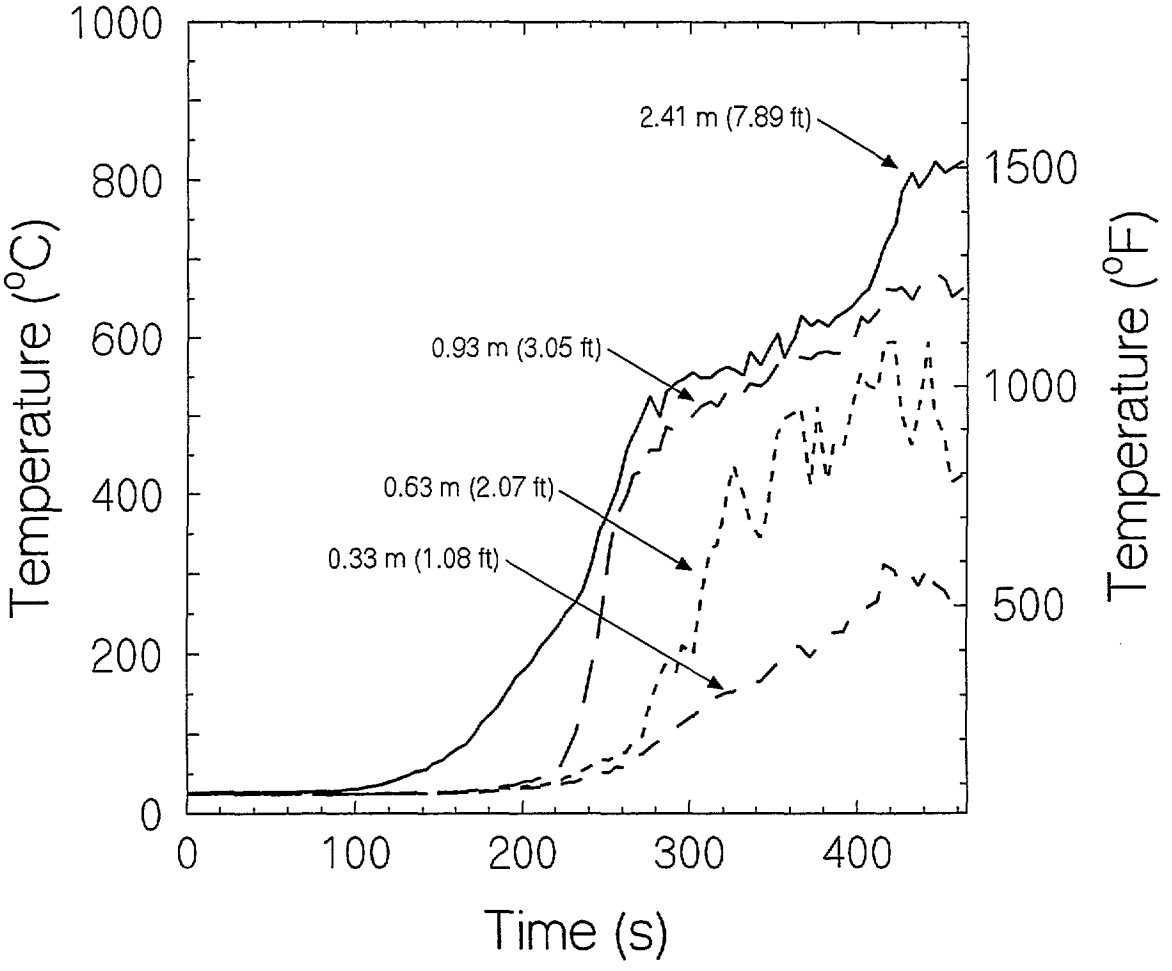

Figure 35. Bedroom temperatures, twin beds experiment (distances above floor)

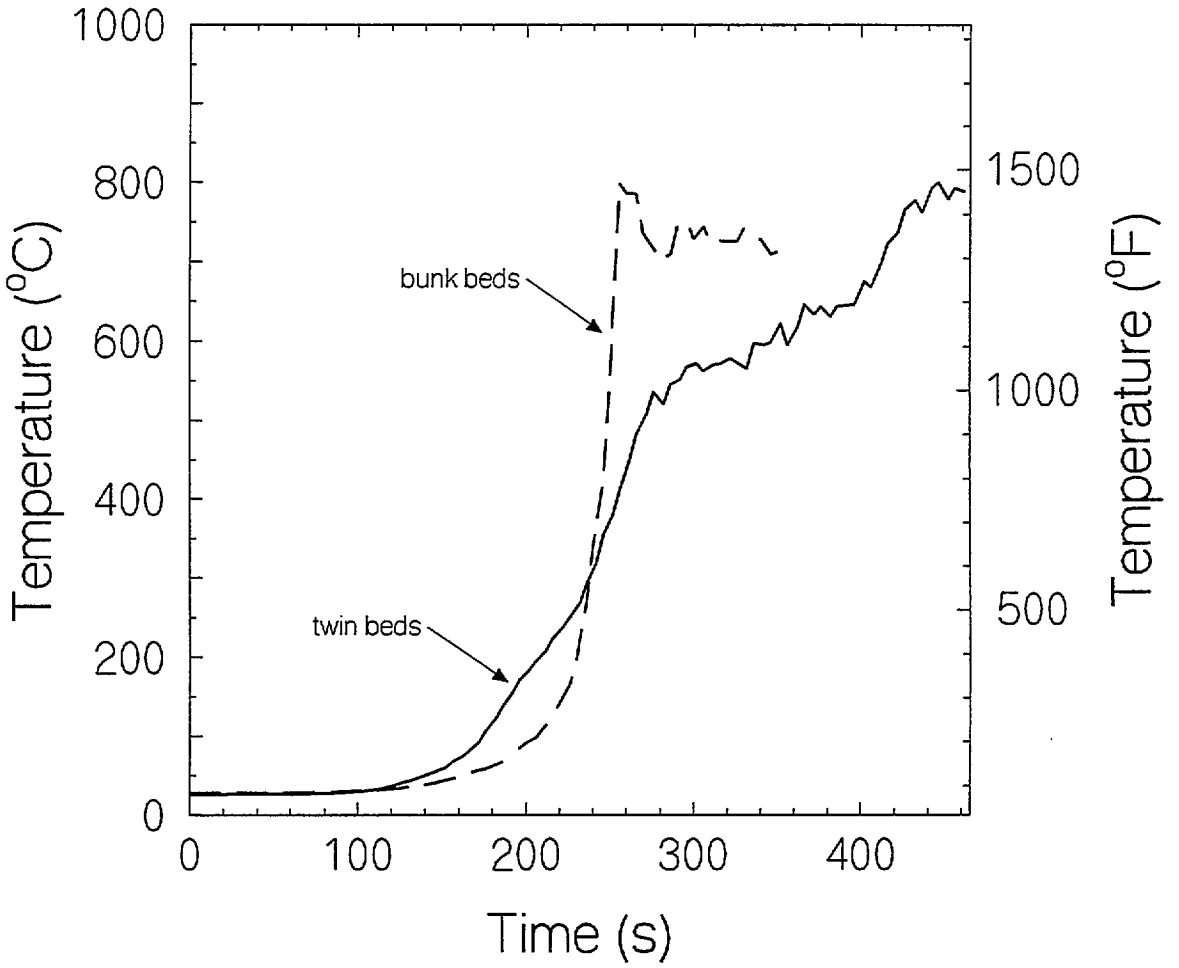

Figure 36. Average bedroom temperatures, 1.83 m (6.00 ft) to 2.43 m (7.97 ft) above the floor

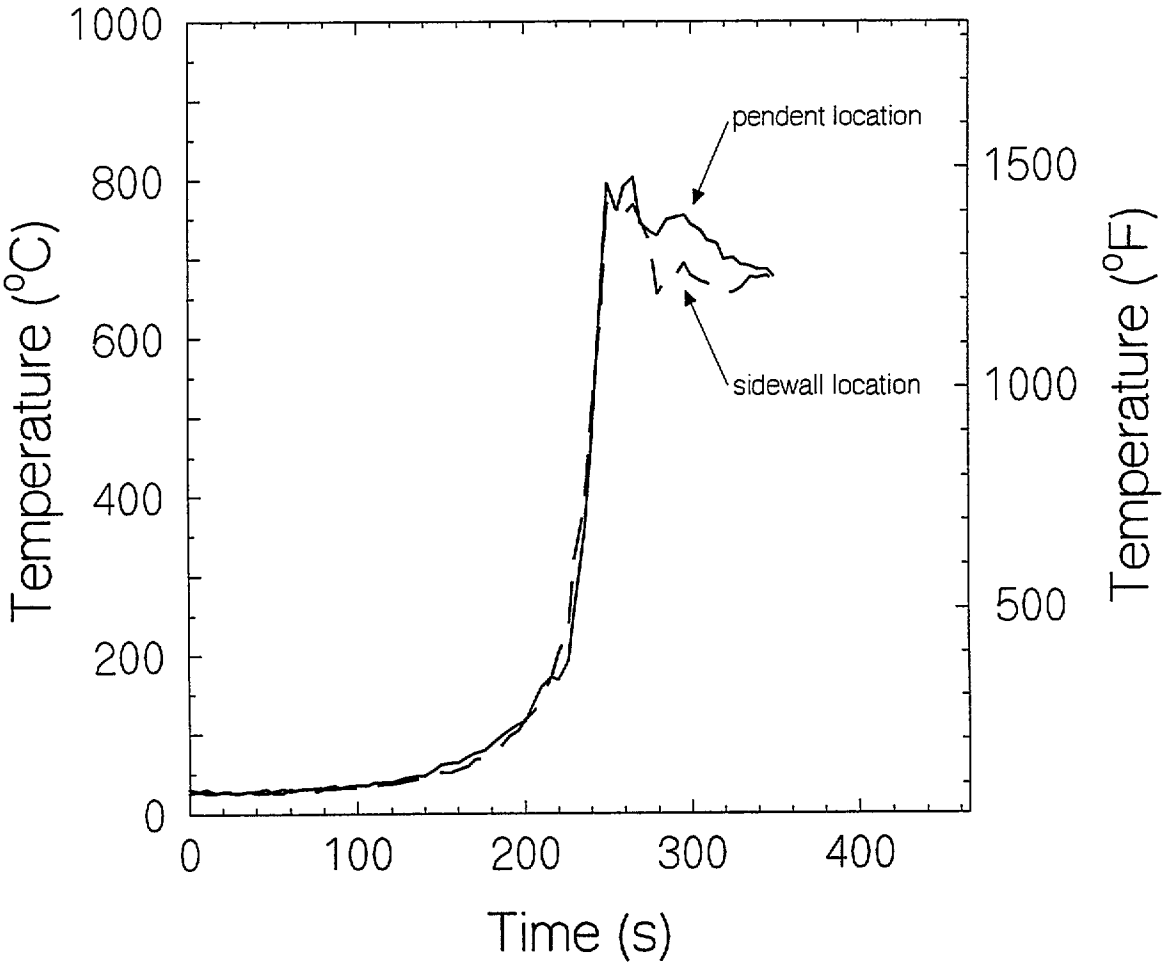

Figure 37. Sprinkler thermocouple temperatures, bunk beds experiment

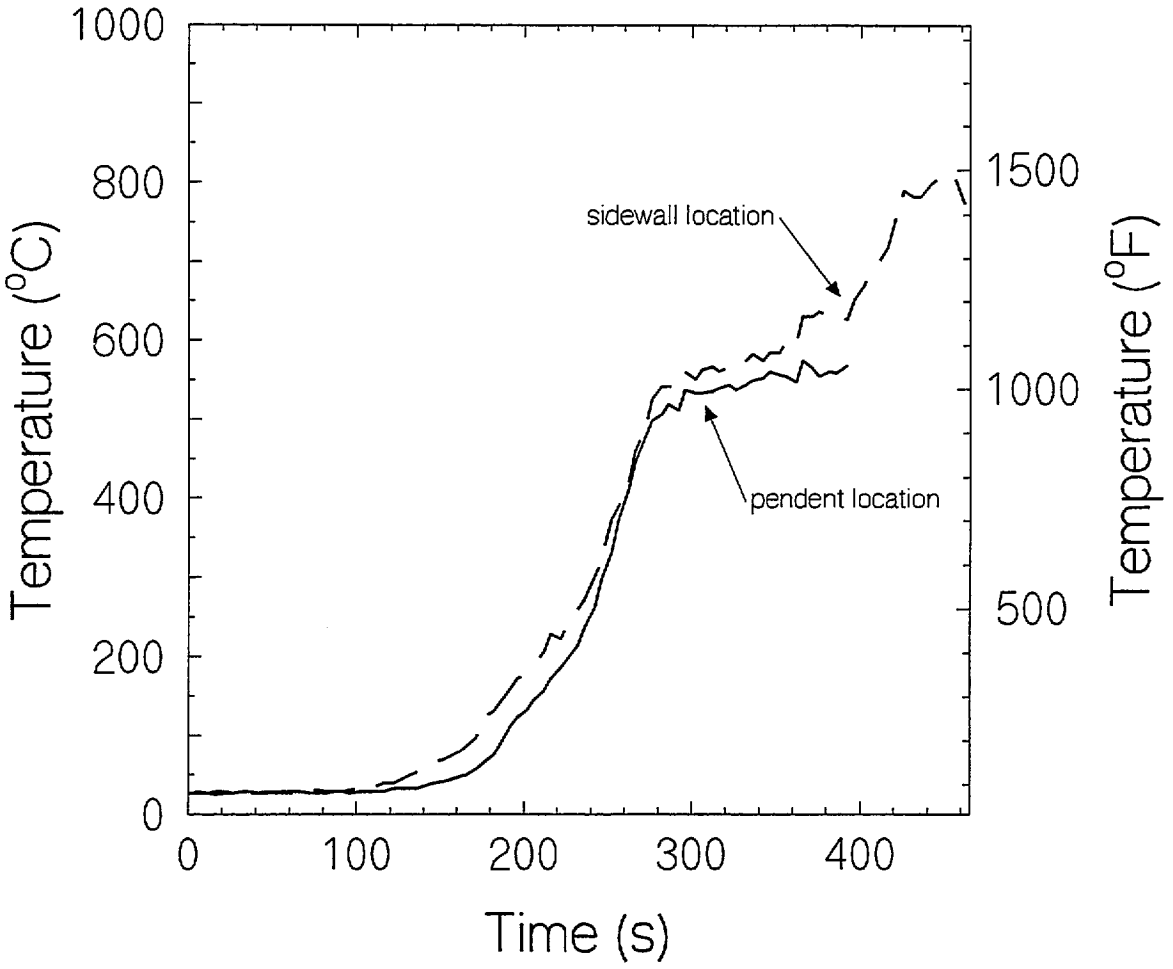

Figure 38. Sprinkler thermocouple temperatures, twin beds experiment

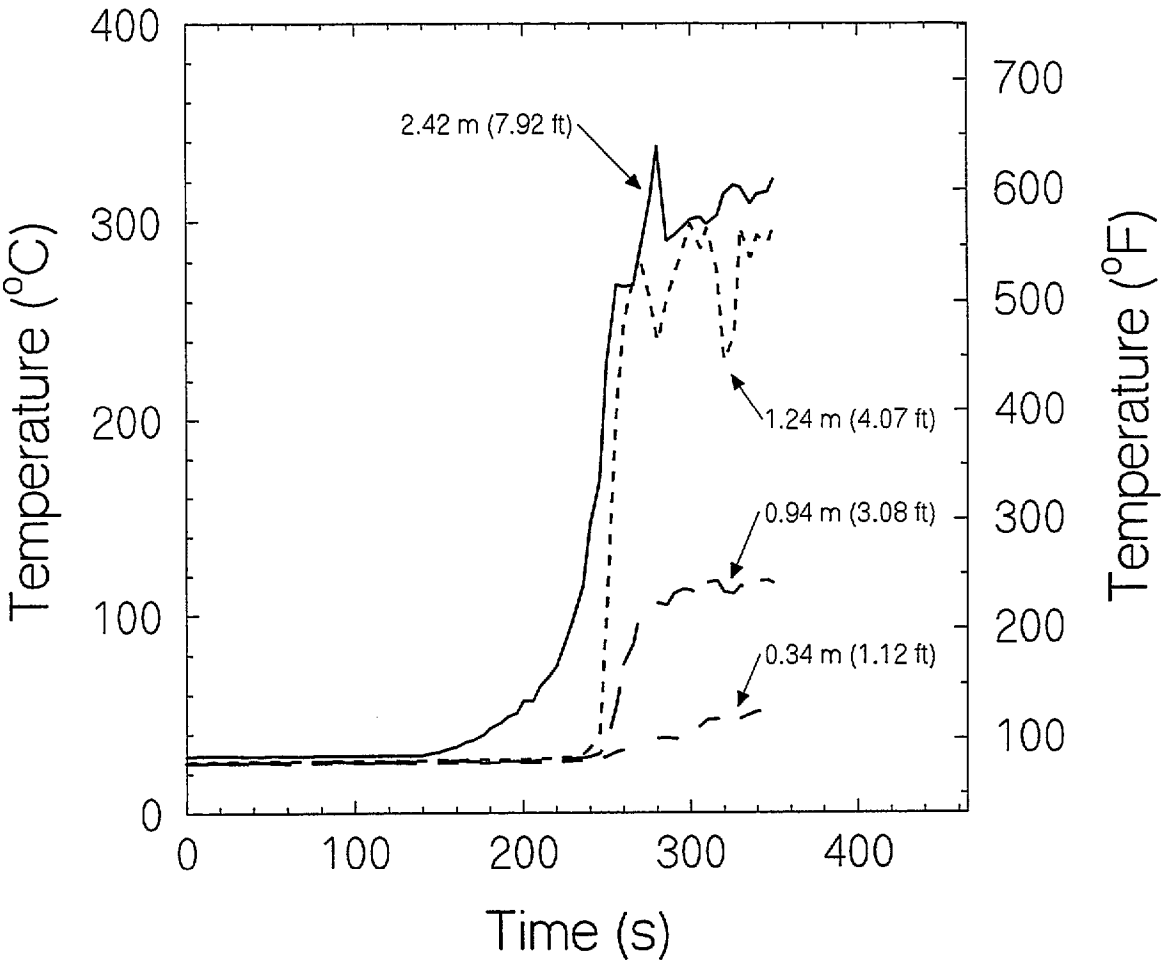

Figure 39. Hall temperatures, bunk beds experiment (distances above floor)

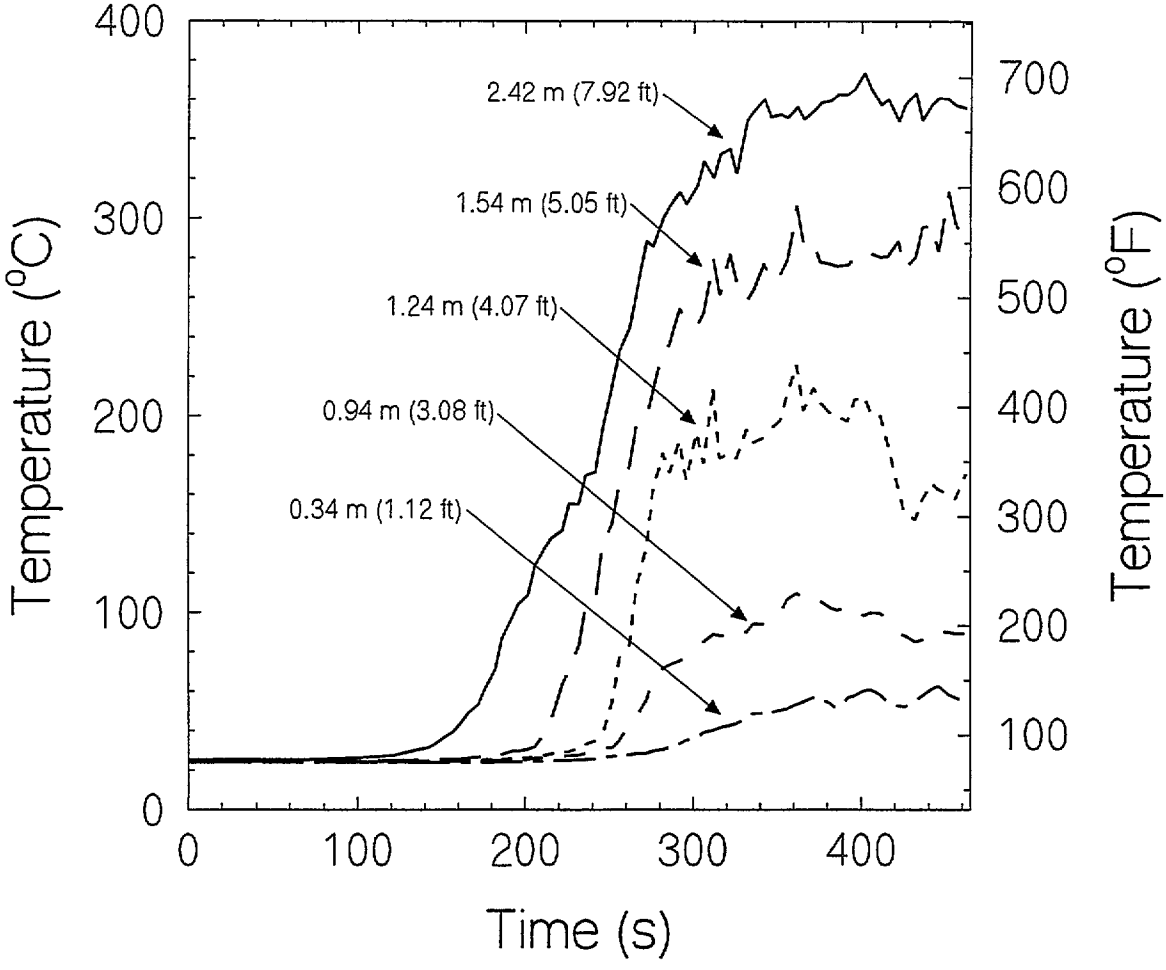

Figure 40. Hall temperatures, twin beds experiment (distances above floor)

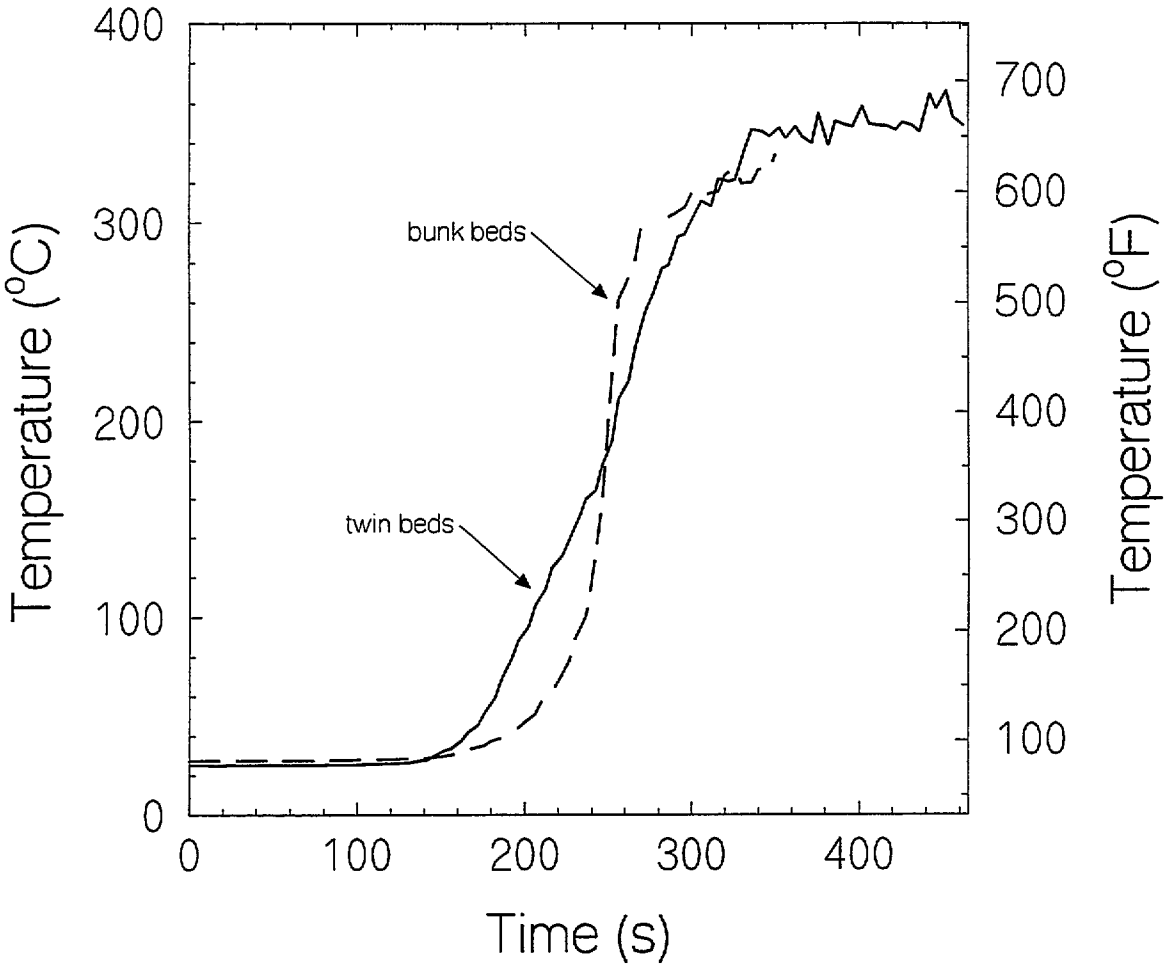

Figure 41. Average hall temperatures, 1.84 m (6.04 ft) to 2.44 m (8.01 ft) above the floor

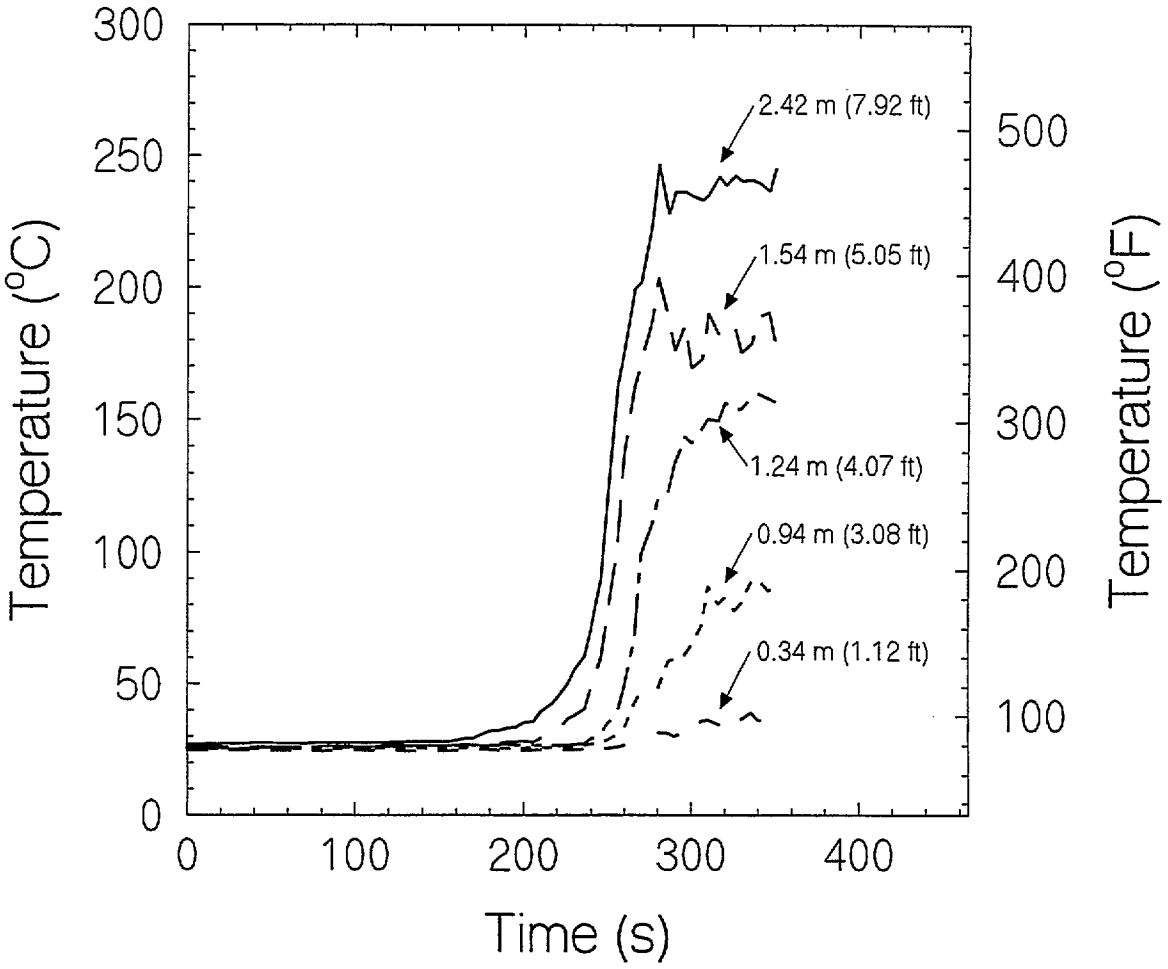

Figure 42. Living room temperatures, bunk beds experiment (distances above floor)

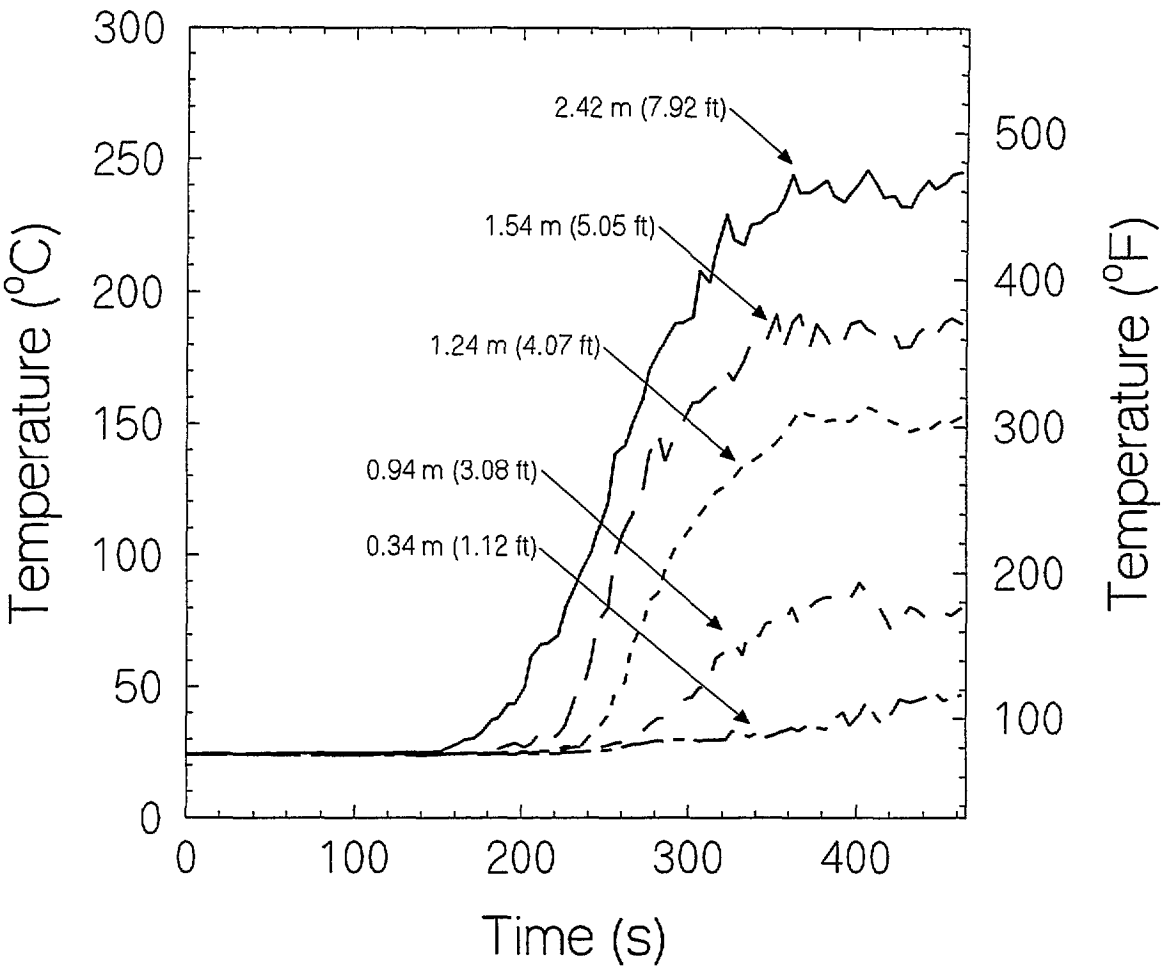

Figure 43. Living room temperatures, twin beds experiment (distances above floor)

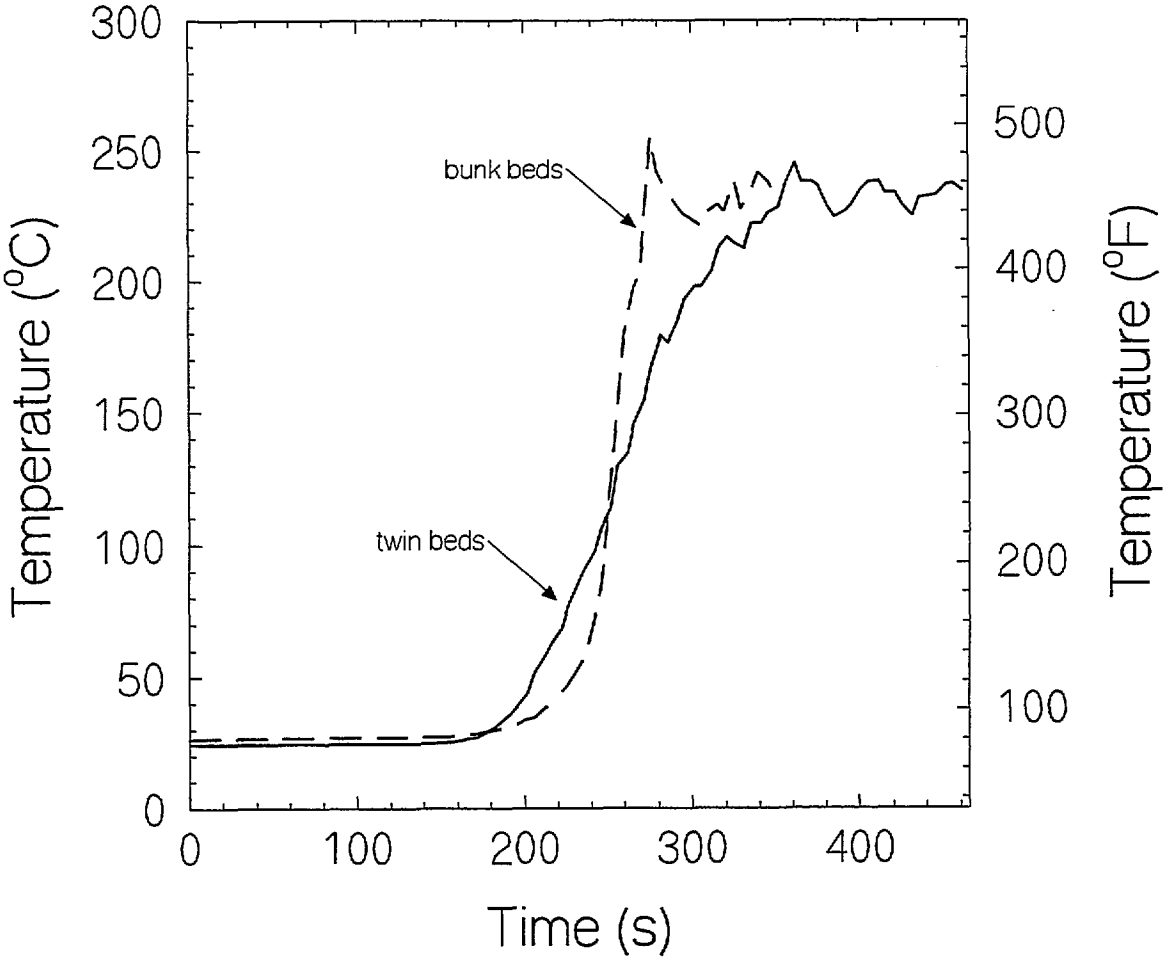

Figure 44. Average living room temperatures, 1.84 m (6.04 ft) to 2.44 m (8.01 ft) above the floor

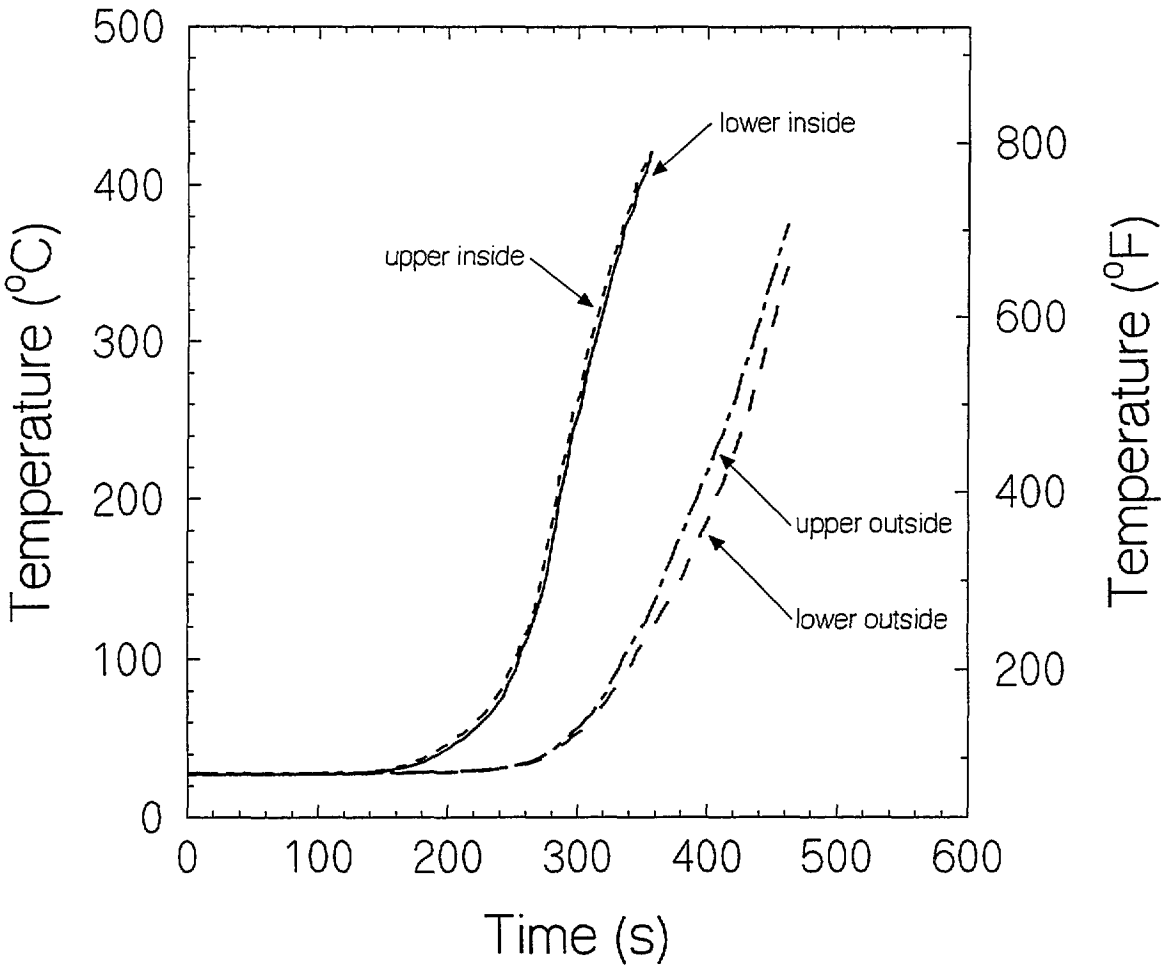

Figure 45. Window glass temperatures, twin beds experiment

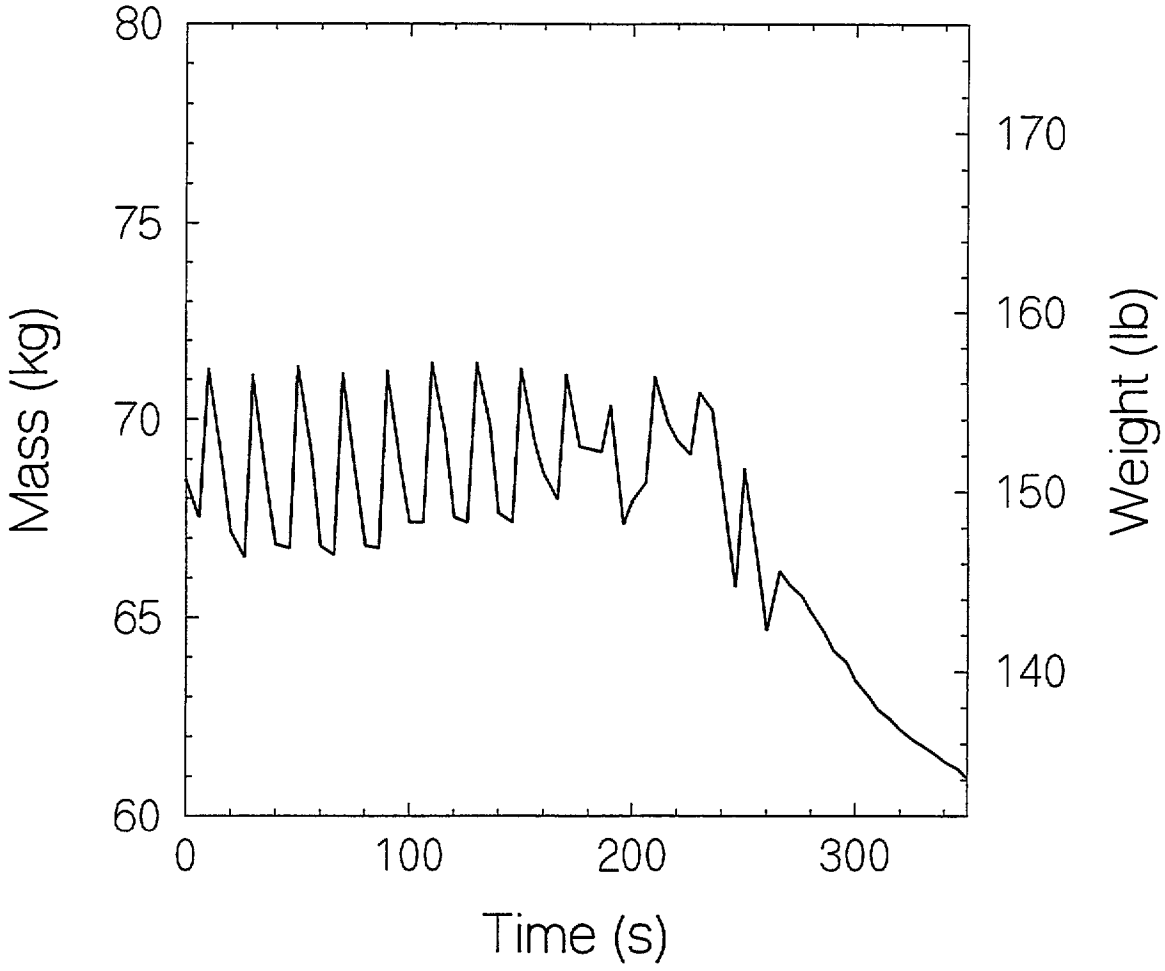

Figure 46. Bunk bed mass, bunk beds experiment

4.0 LIVING ROOM EXPERIMENT AT 1315 SOUTH BRISTOL STREET

The experiment addressed in this section occurred on July 14, 1994, at 1315 South Bristol Street. The measurements included: temperatures within various rooms, the velocity and temperature of out-flowing gases, smoke detector activation time, sprinkler activation times, and time to full room involvement. Data were recorded every 5 seconds with a computerized acquisition system.

4.1 Structure

The building used for the fire experiment was a vacant one story single family dwelling. The building was of wood frame construction, with gypsum board interior walls and ceiling, and stucco over wire mesh and paper exterior walls. The floors throughout the building, with the exception of the kitchen and bathroom, were constructed of hardwood. The floors in the kitchen and bathroom were covered with vinyl flooring.

The building had no basement, but rather a ventilated crawl space. The building was covered with a pitched roof, consisting of asphalt shingles over redwood planks.

The layout of the building is shown in Figures 47 and 48, along with interior dimensions. There were three bedrooms, a bathroom, living room, kitchen, and garage. In order to simulate a second story bedroom, a section of roof was removed and a room was added above the living room. The addition was of wood frame construction, with the interior walls and ceiling consisting of fire rated 15.9 mm (0.625 in nominal) thick gypsum board. There was no exterior covering over the wood members of the second story room.

4.2 Smoke Detector

A smoke detector was installed in the hallway outside of the bedrooms in accordance with NFPA 74. The detector was a single station, battery powered, UL listed, ionization type smoke detector. The activation time for the smoke detector was recorded manually by an observer equipped with a stop watch. The location of the smoke detector is shown in Figure 49.

4.3 Sprinklers

In order to measure the activation time of typical residential type sprinklers, one pendent sprinkler was installed in the ceiling of the living room, and one sidewall sprinkler was installed on the front wall of the living room. It should be noted that an actual residential sprinkler system installed according to NFPA 13D would require more than one pendent or sidewall sprinkler to be installed in the living room.

The sprinklers had glass bulb elements with activation temperatures of 68°C (155°F). Each sprinkler was connected to a pressure switch with copper tubing. The tubing was pressurized with approximately 210 kPa (30 psi) of air pressure. When a sprinkler actuated, the signal was recorded on the data acquisition system, and timed via an indicator light.

In addition to the sprinklers installed for the measurement of activation time, two additional sidewall sprinklers, attached to a manually controlled water supply, were installed in the front wall of the fire room for experimental safety. Water was applied through the sprinklers for approximately 15 seconds at the end of the experiment prior to manual fire fighting which extinguished the fire.

The locations of the various sprinklers are shown in Figure 49.

4.4 Temperature Measurement

The temperatures were measured with 0.51 mm (0.02 in) nominal diameter bare bead, type K thermocouples. Floor to ceiling thermocouple arrays were located in the living room, hallway, and second floor room as shown in Figures 49 and 50. The elevations of the thermocouples above the floor are given in Table 15 for the living room, and in Table 16 for the hallway and second floor.

Thermocouples were located within 20 mm (0.79 in) of the pendent and sidewall sprinklers used to measure activation time. A thermocouple was located within a sheet of crumpled newspaper located on the floor near the television set as shown in Figure 49. This thermocouple was used to detect ignition of the newspaper, an indication that full room involvement had occurred.

An array of thermocouples was located in the centerline of the open front window of the second story room. The elevations of the thermocouples, as measured from the top of the window are listed in Table 17.

The uncertainty in temperature measurement is ± 2.2°C (± 4.0°F) as derived from the thermocouple wire manufacturer. The uncertainties in the thermocouple locations are estimated at ± 0.01 m (± 0.4 in.)

4.5 Velocity Measurement

The gas velocity in the front second story window was measured with a bi-directional probe connected to a differential pressure transducer. The bi-directional probe was located 0.15 ± 0.01 m below the top of the window approximately 25 mm (0.98 in) from a thermocouple. The uncertainty for the gas velocity measurements is ± 0.1 m/s (± 0.3 ft/s) as derived from manufacturer data for the differential pressure transducer.

4.6 Fuel Load

The fire room was furnished by the Santa Ana Fire Department to simulate high fuel load conditions. The furnishings consisted of two wood frame bunk beds (mattresses without box springs), a double bed (mattress and box spring), pillows, two couches, a television set, a lamp shade, and assorted articles of clothing. The total mass of the contents was 552.0 kg (1217 lb) with an uncertainty of 10% estimated for the scale used in the experiments. The masses of the individual components are listed in Table 18. Figure 51 shows the location of the furniture in the room.

In addition to the contents of the room discussed above, there was an ignition source. The ignition source for the fire was a plastic waste basket with nominal overall dimensions of 0.255 m high by

0.255 m wide by 0.188 m deep (10.0 x 10.0 x 7.4 in.). The waste basket contained a total of eight 2 quart waxed cardboard milk cartons. Two cartons were placed vertically in the basket, with another placed inside each of the two forming two double layered vertically oriented open cartons. Inside each of the vertical cartons was placed the torn pieces, nominally 0.0010 m^2 (1.6 in^2), from two identical cartons. The waste basket was placed between the two sets of bunk beds and ignited by removing one torn piece from each of the two vertical cartons, igniting it, and dropping it into the carton.

4.7 Results

The sequence of events for the experiment is given in Table 19, with an estimated uncertainty of ±2 seconds.

The temperatures measured within the living room (fire room) are shown in Figure 52. The data is presented for various distances from the floor in order to simplify the graphs yet show the temperature profile within the room. The temperatures of all thermocouple locations are not plotted; a subset of thermocouples is adequate for describing the temperature trends at various elevations within the room. Data from all of the thermocouple tree temperature measurements are presented in appendix C of this report. Due to the failure of the living room thermocouple tree shortly after full room involvement the temperature data is available only up to 120 seconds. The thermocouple near the pendent sprinkler and on the floor in the newspaper, however, operated throughout the experiment. The data from these thermocouples are shown in Figure 53. The data from the thermocouple near the sidewall sprinkler, also shown in Figure 53, ends at approximately 120 seconds due to thermocouple failure.

The temperatures measured within the hallway are shown in Figure 54. As in the case of the fire room, temperatures are given versus time for selected heights above the floor.

Temperatures measured in the second floor room are graphed in Figure 55. The temperatures of gases entering or leaving through the open window at the front of the room are shown in Figure 56.

The velocity of the out-flowing gases measured by the bi-directional probe at the front window of the second story room is shown in Figure 57.

Table 15. Living room thermocouple elevations

Thermocouple Number	Distance From Floor (m)	Distance From Floor (ft)
1	2.41	7.89
2	2.36	7.73
3	2.28	7.48
4	2.21	7.23
5	2.13	6.99
6	1.98	6.50
7	1.83	6.00
8	1.68	5.51
9	1.53	5.02
10	1.38	4.53
11	1.23	4.04
12	1.08	3.54
13	0.93	3.05
14	0.78	2.56
15	0.63	2.07
16	0.48	1.58
17	0.33	1.08
18	0.18	0.59

Table 16. Hall and second story room thermocouple elevations

Thermocouple Number	Distance From Floor (m)	Distance From Floor (ft)
1	2.42	7.92
2	2.37	7.76
3	2.29	7.51
4	2.22	7.27
5	2.14	7.02
6	1.99	6.53
7	1.84	6.04
8	1.69	5.55
9	1.54	5.05
10	1.39	4.56
11	1.24	4.07
12	1.09	3.58
13	0.94	3.08
14	0.79	2.59
15	0.64	2.10
16	0.49	1.61
17	0.34	1.12
18	0.19	0.62

Table 17. Window thermocouple elevations

Thermocouple Number	Distance From Top of Window (m)	Distance From Top of Window (ft)
1	0.15	0.49
2	0.30	0.98
3	0.45	1.48
4	0.60	1.97
5	0.75	2.46
6	0.90	2.95

Table 18. Fuel load

Item	Mass (kg)	Weight (lb)
Mattress 1	25.9	57.1
Mattress 2	14.5	32.0
Mattress 3	14.5	32.0
Mattress 4	22.7	50.0
Mattress 5	22.2	48.9
Box springs	23.6	52.0
Couch 1	52.2	115.1
Shade	0.5	1.1
Bed clothes	19.1	42.1
Pillows	7.7	17.0
Television	71.7	158.1
Couch 2	54.4	120.0
Bed frame (wood)	6.4	14.1
Bunk bed frames (wood)	54.4	120.0
Clothing	151.0	332.9
Total	**552.0**	**1217.0**

Table 19. Sequence of events

Elapsed Time (s)	**Event**
0	Ignition
85	Smoke detector actuation
100	Pendent sprinkler actuation
105	Sidewall sprinkler actuation
110	Transition to full room involvement
360	Water application begins

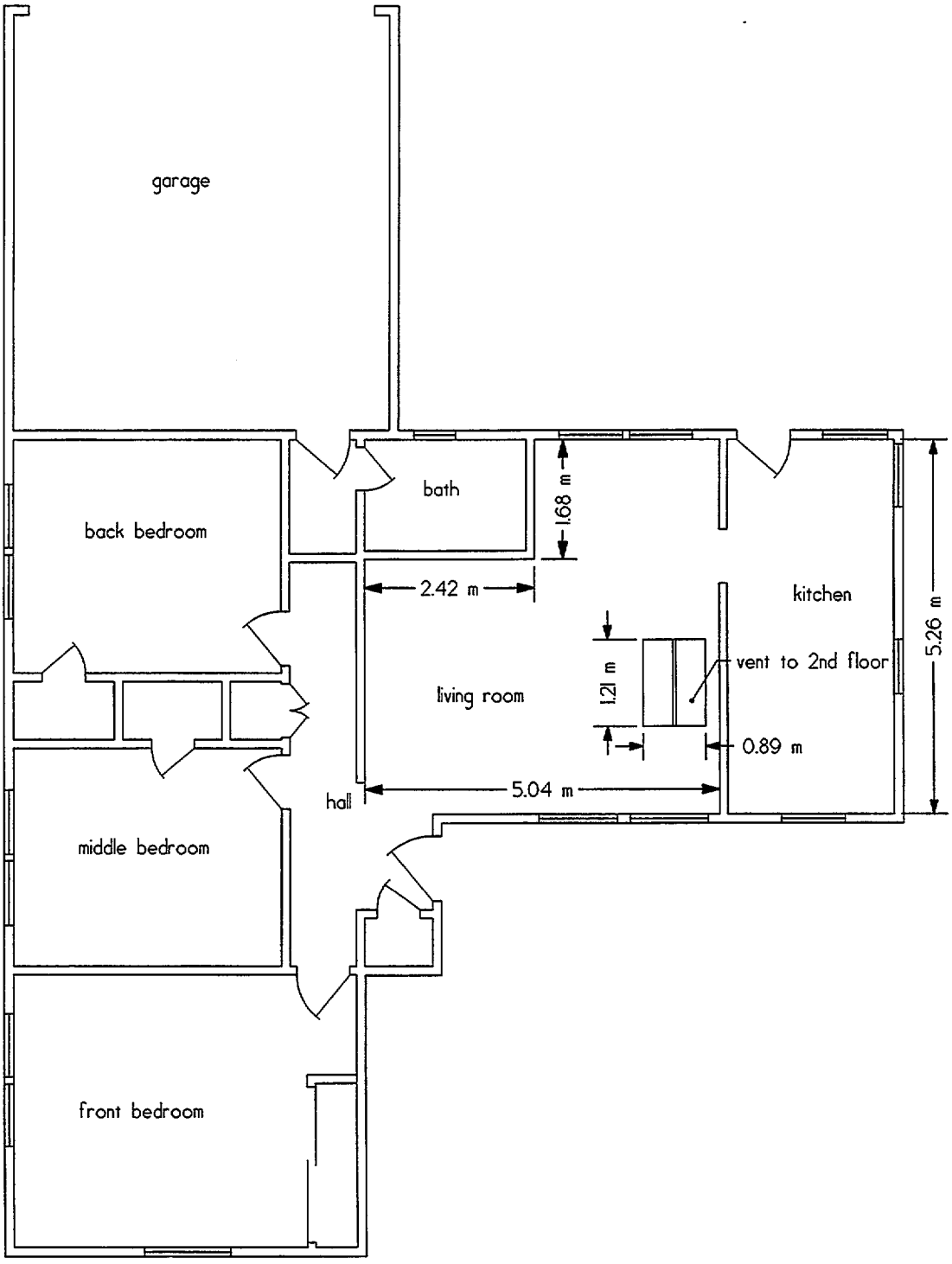

Figure 47. Plan view of the first floor

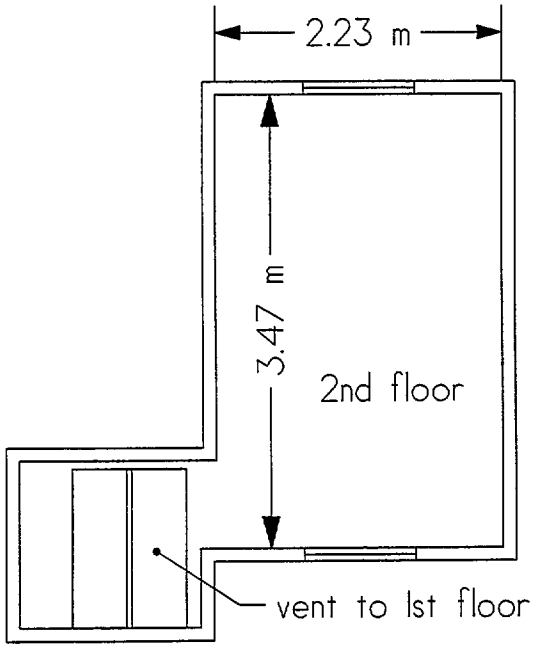

Figure 48. Plan view of the second floor.

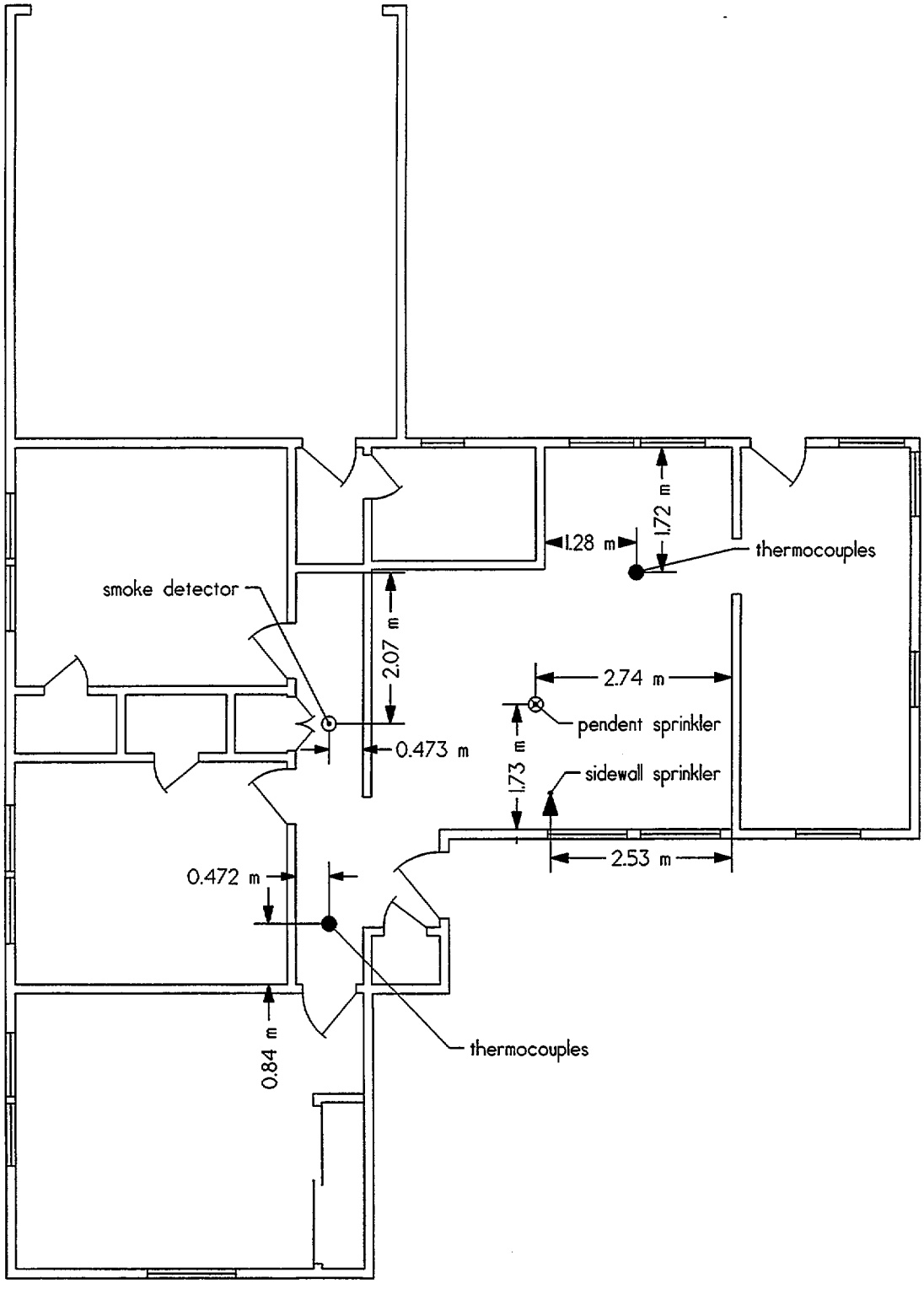

Figure 49. Instrument locations on the first floor

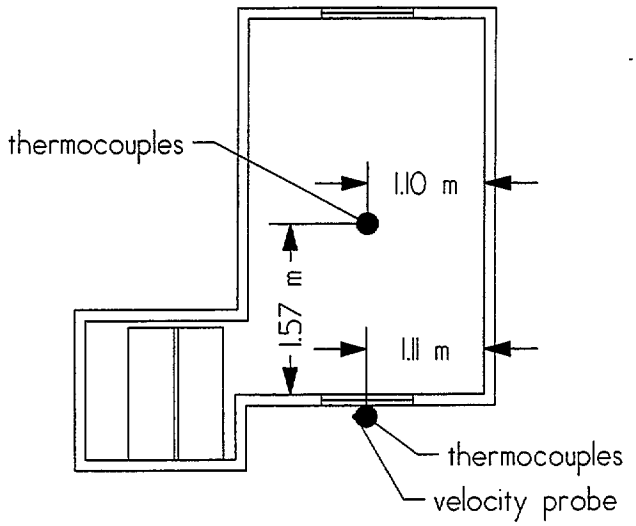

Figure 50. Instrument locations on the second floor

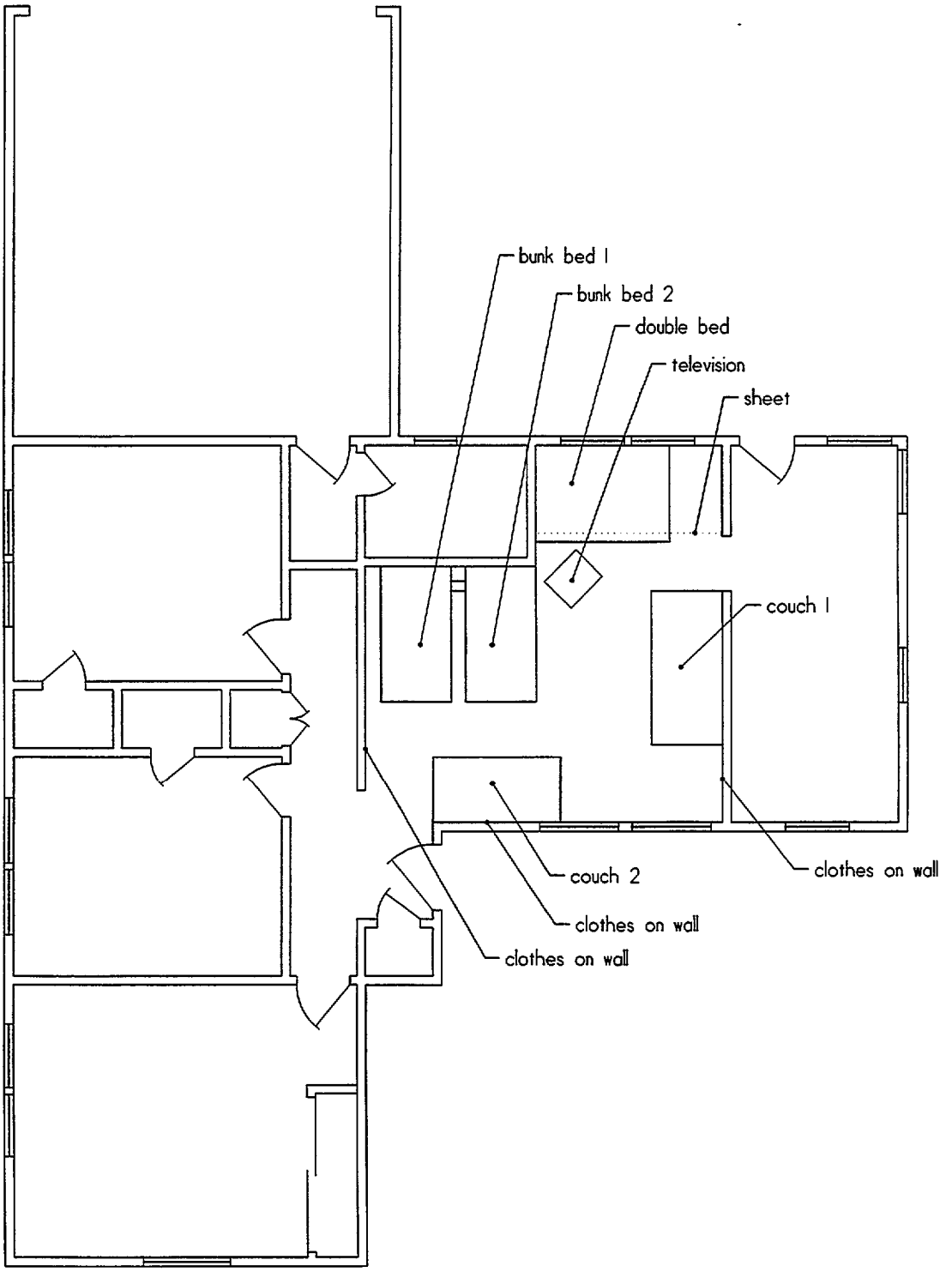

Figure 51. Plan view of fire room with combustible contents.

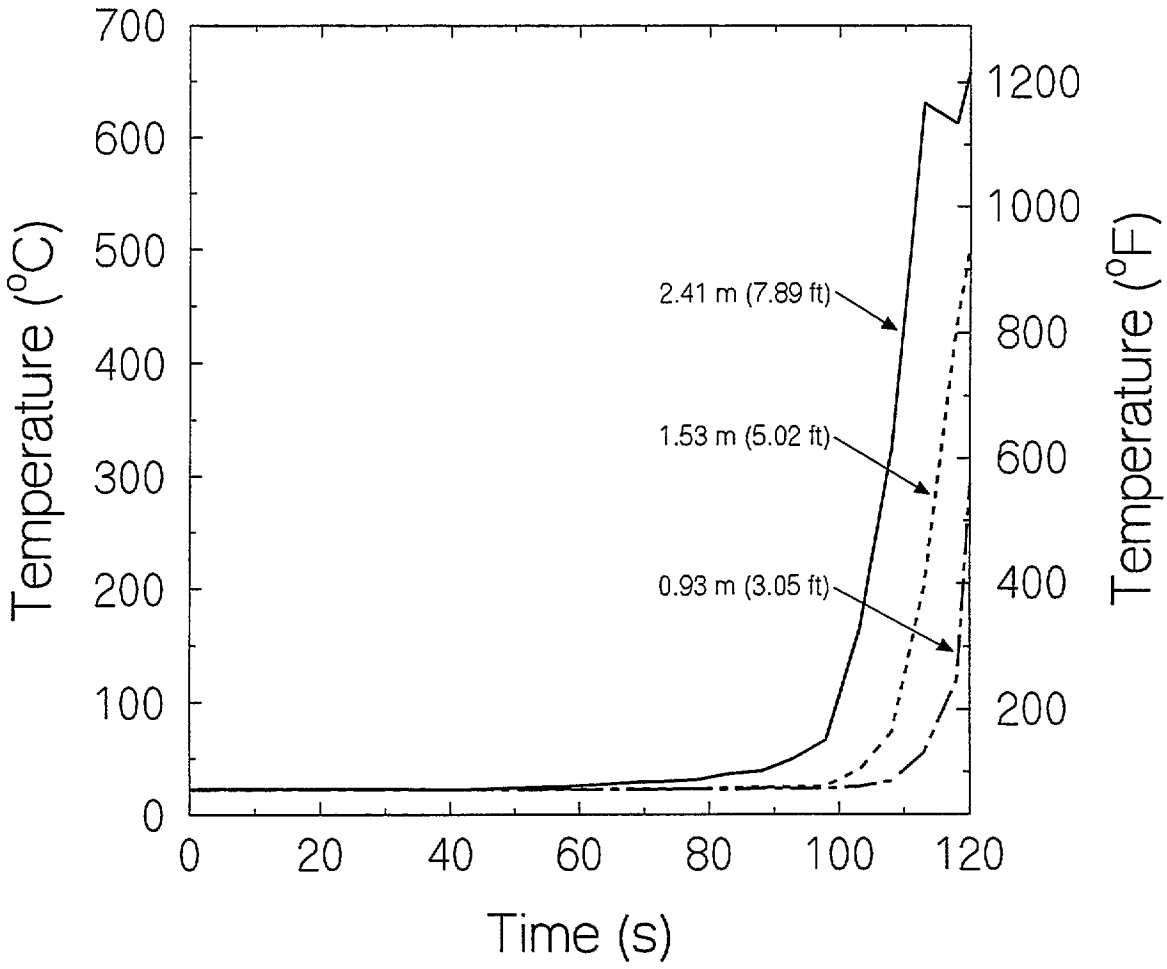

Figure 52. Temperatures in the living room.

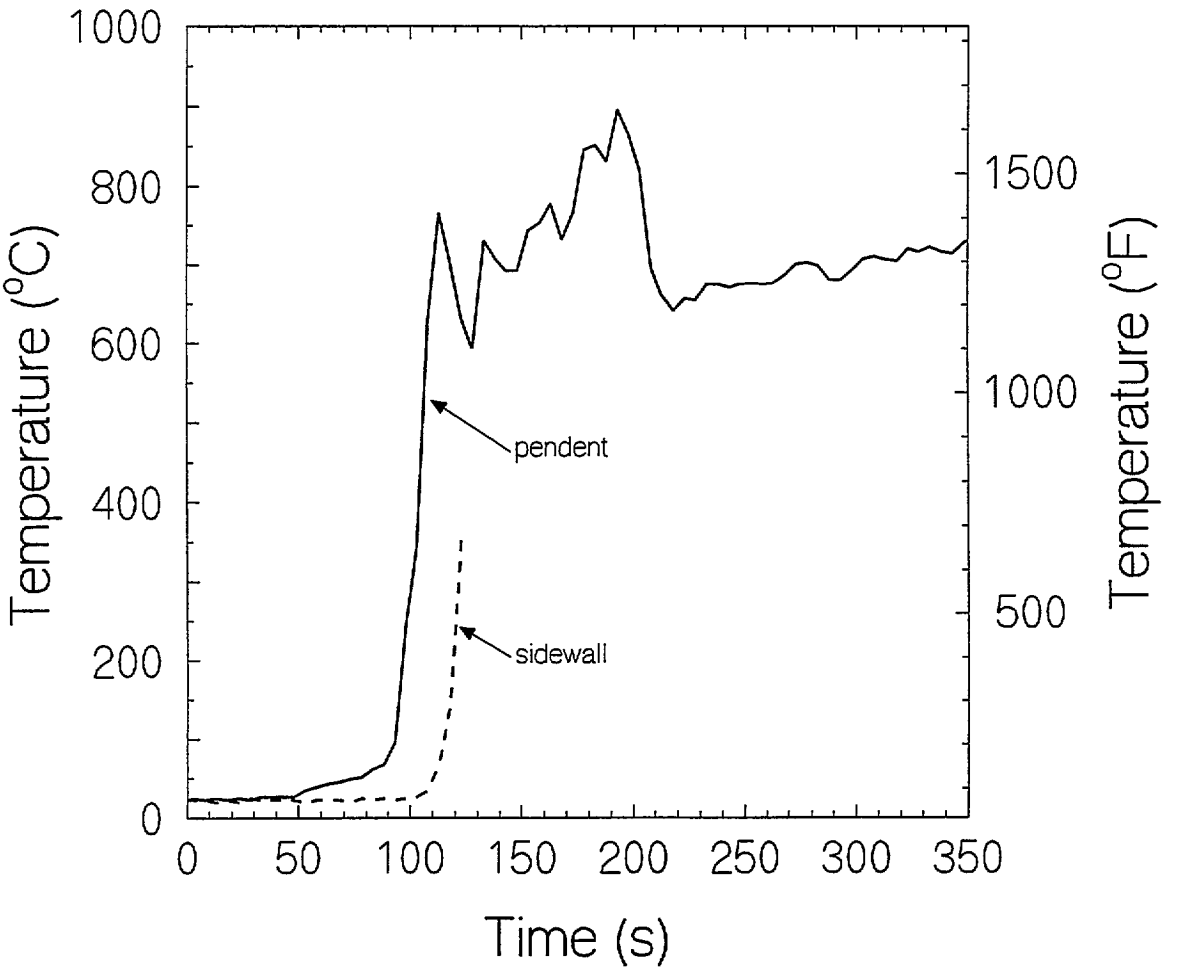

Figure 53. Single thermocouple temperatures within the living room.

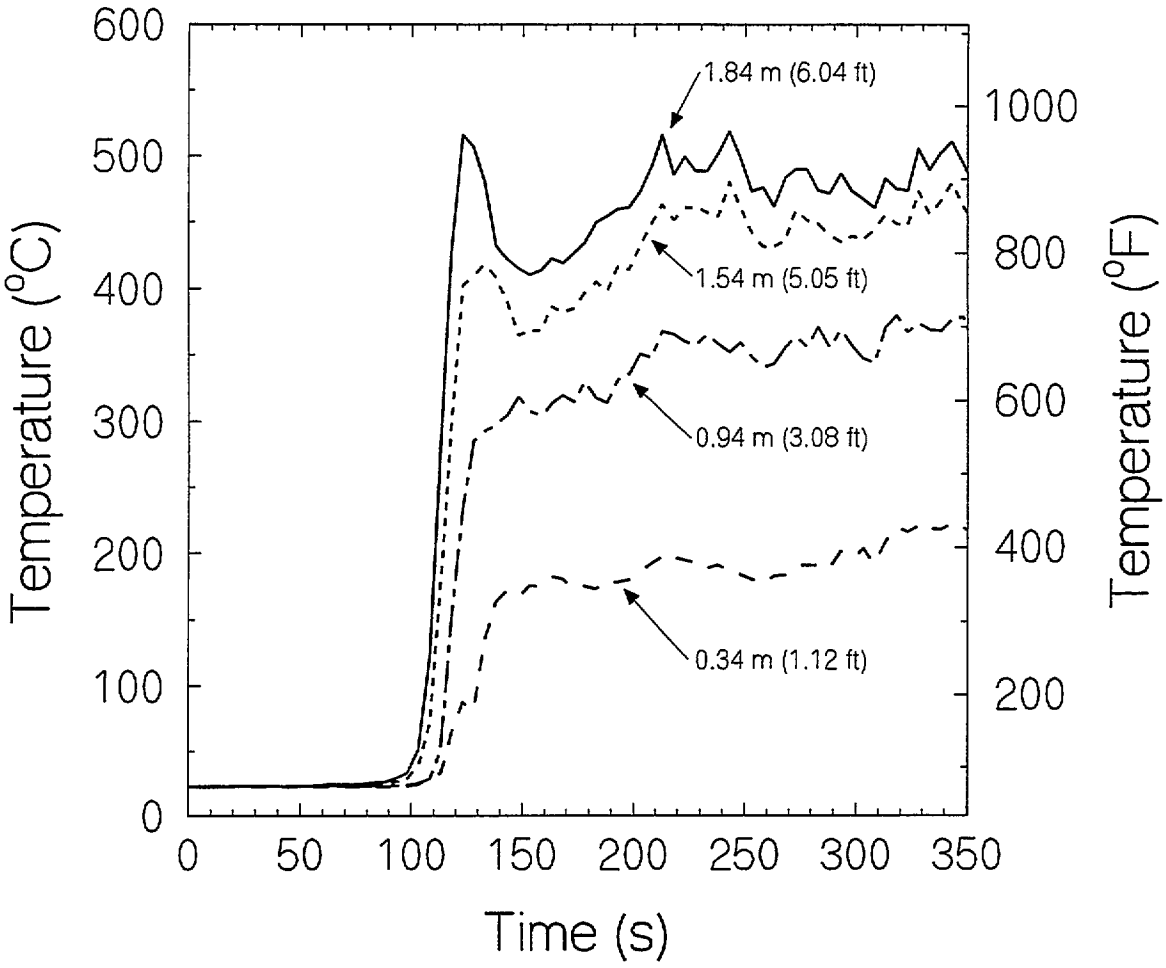

Figure 54. Temperatures in the hall adjacent to the living room.

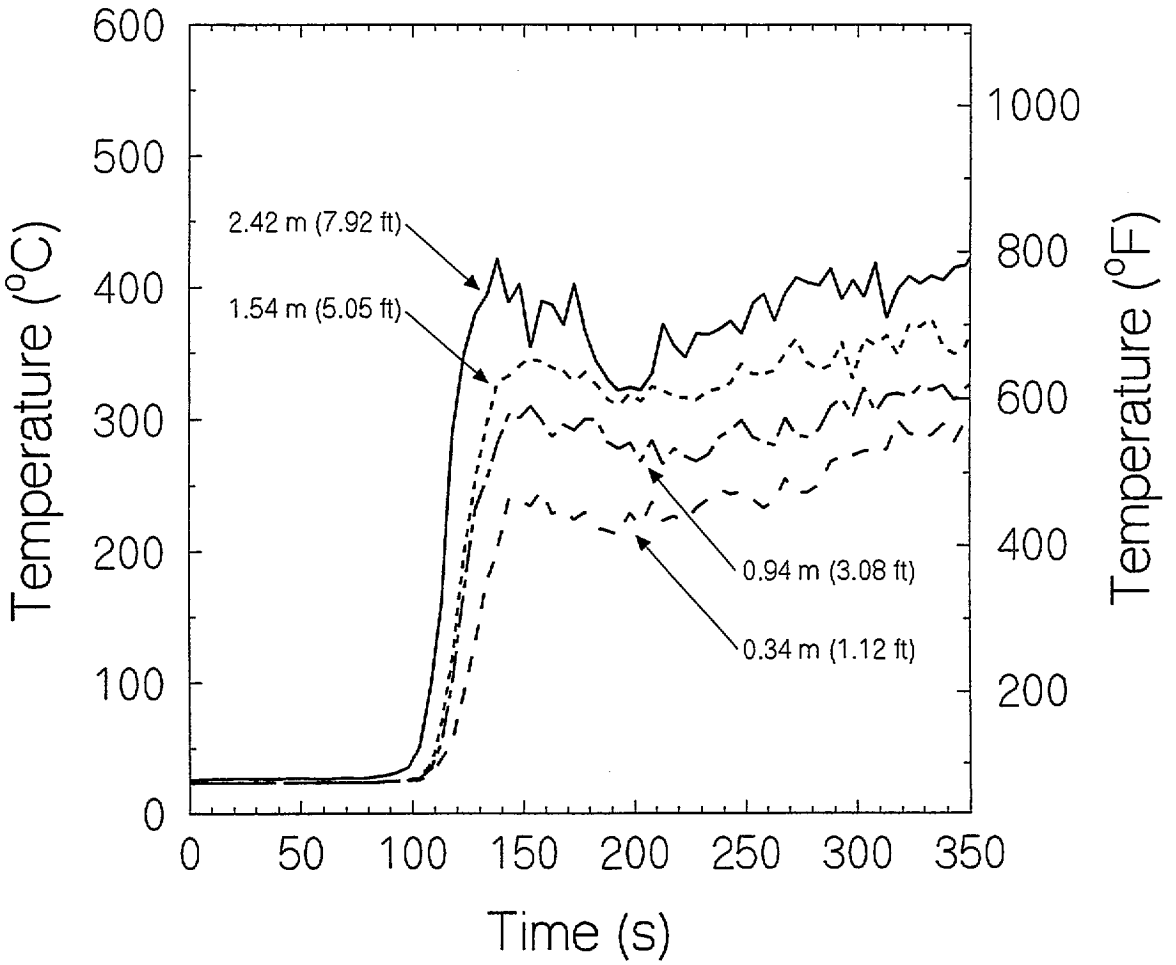

Figure 55. Temperatures in the second story.

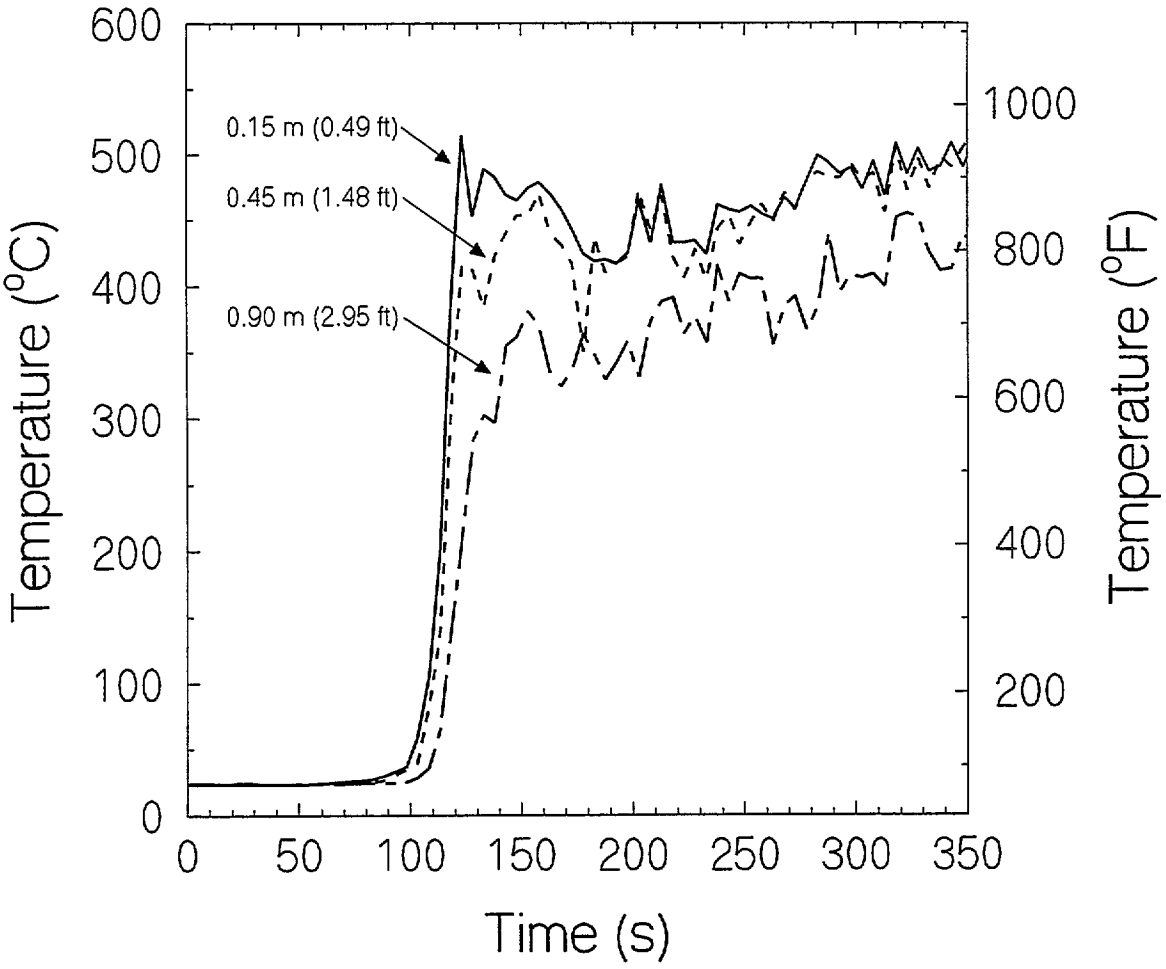

Figure 56. Temperatures in the second story front window.

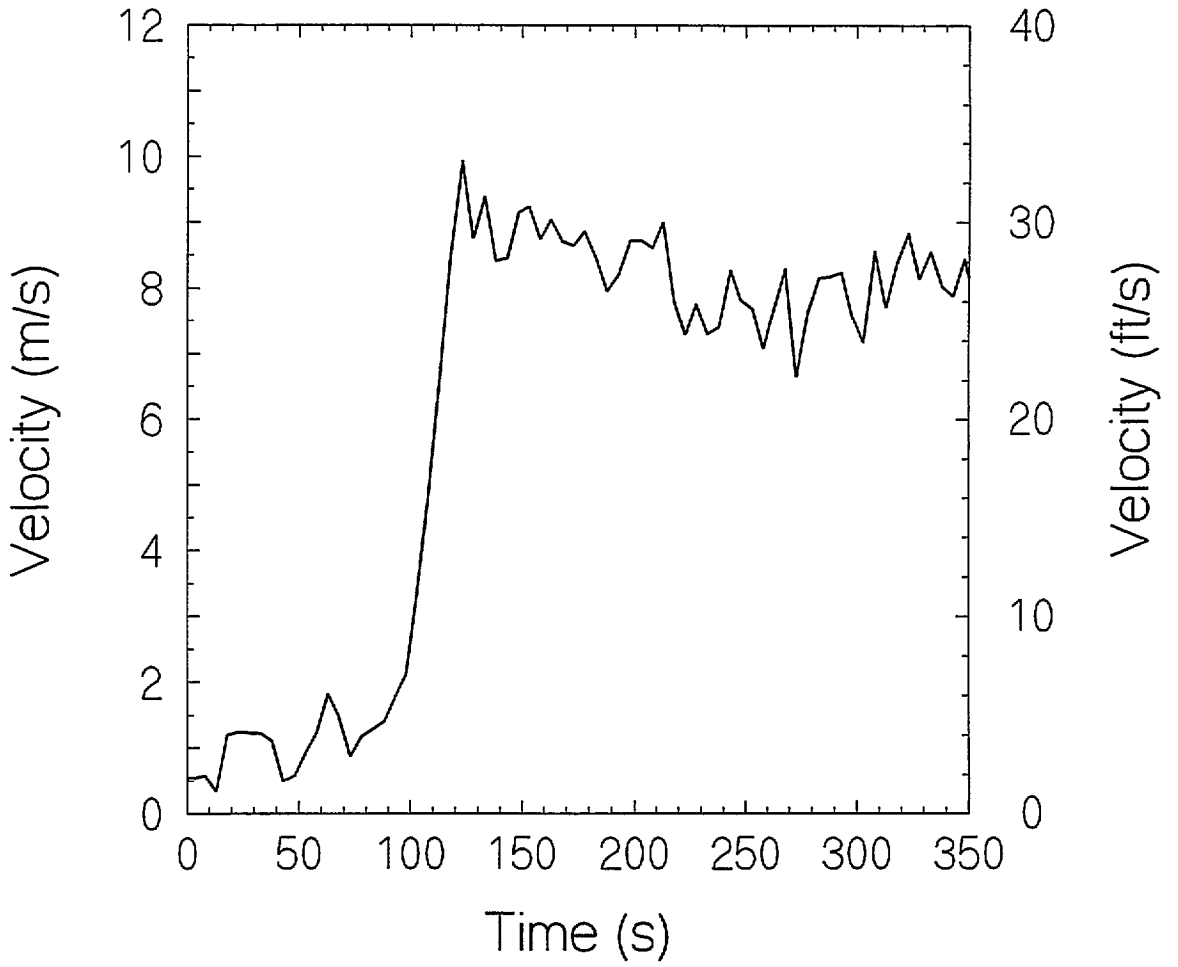

Figure 57. Velocity of the gases at the second story front window.

5.0 BEDROOM EXPERIMENT AT 1247 SOUTH BRISTOL STREET

The experiment addressed in this section occurred on July 12, 1995, at 1247 South Bristol Street. The measurements included temperatures and oxygen concentrations within various rooms. Data were recorded every 5 seconds with a computerized acquisition system.

5.1 Structure

The building used for the fire experiment was a vacant one story single family dwelling. The building was of wood frame construction, with gypsum board interior walls and ceiling in the front bedroom (the room of fire origin). The walls and ceilings of the remainder of the building consisted of gypsum lath covered with approximately 10 mm of plaster. Exterior walls consisted of stucco over paper and wire mesh. The floor of the fire room was constructed of plywood, which was covered with carpet. The floors throughout the rest of the building were constructed of hardwood. The floor of the middle bedroom was covered with carpet. The floors in the kitchen and bathroom were covered with vinyl flooring.

The building had no basement, but it did have a ventilated crawl space. The pitched roof of the building was covered with asphalt shingles.

The layout of the building is shown in figure 58, and includes four bedrooms, two bathrooms, living room, kitchen, and office. The office and two rear bedrooms were sealed off from the rest of the building with gypsum board during the experiment. The dimensions of the rooms are shown in figure 59.

The front bedroom served as the room of fire origin for the experiment. All doors in the building were closed during the experiments except the doors connecting the front bedroom and the living room, the middle bedroom and the hall, and the middle bedroom exterior door. The two windows in the front bedroom were opened fully during the experiment, i.e. the lower half of the window was open, as were the windows in the living room. The windows were open to simulate conditions typical to a home during the summer in Southern California. The remaining windows of the building were closed, but were uncovered to allow the possibility of fire-induced window breakage.

The distance from the floor to the ceiling in the structure was 2.49 m. The widths of the interior and exterior door openings are shown in figure 60. The height of the front door opening was 1.96 m, while the remaining door openings were 2.04 m high. The standard uncertainties in the ceiling height and door opening dimensions are estimated at ± 0.01 m (± 0.4 in).

The dimensions of the window openings in the structure, before and after breakage, are labeled in figure 60. The standard uncertainties in the window opening dimensions at the start of the experiment are estimated at ± 0.01 m (± 0.4 in). Note that the dimensions of the window openings after breakage are approximate.

5.2 Fuel Load

The front bedroom and living room were furnished by the Santa Ana Fire Department to simulate typical "high" fuel load conditions. Fuel load is defined as the mass of combustible fuel found in a room divided by the floor area of the room. The fuel load, as defined above, does not include the following: building components such as structural members, trim, and floor coverings; or built-in wooden closets and cabinets such as those found in the hall and middle bedroom.

The total fuel load for the experiment, and the masses of the individual components are listed in table 20, with an estimated standard uncertainty of ± 0.2 kg (± 0.4 lbm) for the scale used in the experiments. Figure 61 shows the location of the furniture in the experiment.

The "clothing" listed in table 20 was distributed throughout the front bedroom and living room. Clotheslines were attached to the north and west walls of the bedroom. A large quantity of clothing was draped over the clotheslines for the experiment. Large quantities of clothing were placed on the top and bottom bunks of the two bunk beds, with portions of this clothing hanging over the sides of the beds. Clothes were also placed on the double bed.

In the living room, piles of clothing were placed on top of the televisions, dresser, and bureau. As in the front bedroom, large quantities of clothing were placed on the top and bottom bunks of the three bunk beds, with portions of this clothing hanging over the sides of the beds. Clotheslines were attached to the north, south, and east walls. Large quantities of clothing were draped over the clotheslines.

The ignition source for the fire was a plastic waste basket with nominal overall dimensions of 255 mm high by 255 mm wide by 188 mm deep (10.0 in x 10.0 in x 7.4 in). The waste basket contained a total of eight 2 quart waxed cardboard milk cartons. Two cartons were placed vertically in the basket, with another placed inside each of the two forming two double layered vertically oriented open cartons. Inside each of the vertical cartons were placed the torn pieces, nominally 1.0×10^3 mm^2 (1.6 in^2), from two identical cartons. The waste basket was ignited by removing one torn piece from each of the two vertical cartons, igniting it, and dropping it into the carton.

5.3 Temperature Measurement

Temperatures were measured with 0.51 mm (0.02 in) nominal diameter bare bead, type K thermocouples. The floor to ceiling thermocouple trees were located in the front bedroom, living room, hall, and middle bedroom as shown in figure 62. The elevations of the thermocouples above the floor are given in table 22 for the front bedroom, living room, hall, and middle bedroom. Note that the temperature of the thermocouple farthest from the ceiling, thermocouple 9, was not recorded for the thermocouple trees in the front bedroom and living room.

The standard uncertainty in temperature measurement is ± 1.1 °C (± 2.0 °F) as determined by the thermocouple wire manufacturer. The standard uncertainties in the thermocouple locations are estimated at ± 0.01 m (± 0.4 in).

5.4 Oxygen Concentration

Oxygen concentration was measured at two locations in the structure during the experiment. Oxygen concentrations over time were measured by continuous sampling of room gases. One sampling point was located in the front bedroom, while the second sampling point was located near the north side of the living room, adjacent to thermocouple tree number 3. The sampling points were located 0.60 m (24 in) above the floor. The locations of the oxygen sampling points are shown in figure 62.

Gases sampled inside the structure were drawn into copper tubing at the sampling point at a rate of approximately 2 L/min (0.07 cfm). The tubing was routed outside the structure where the sampled gases from each point passed through a dry ice water trap, a particulate filter, a pump, a rotameter, and into an oxygen analyzer. The oxygen analyzer used the magneto-dynamic principle, which measures the attraction of gases to a non-uniform magnetic field, and output the oxygen concentration measurement to the data acquisition system.

Due to the length of tubing from the sample point to the oxygen analyzer, there is a significant travel time associated with the movement of the gas from the sampling point to the gas analyzer. In addition, there is also a response time for the oxygen analyzer, which represents the time necessary for the analyzer to sense changes in the concentration of oxygen in the gases entering the analyzer. The total time delay, from the time changes occurred in the oxygen concentration at the sampling point to the time these changes were reported by the oxygen analyzer was 28 s ± 2 s for the front bedroom, and 30 s ± 2 s for the living room. Oxygen concentrations given in this report have been corrected for this delay.

The estimated combined uncertainty in the oxygen concentration measurements is ± 0.3 % oxygen. The standard uncertainties in the sampling locations are estimated at ± 0.01 m (± 0.4 in).

5.5 Results

The sequence of events for the experiment is given in table 23, with an estimated standard uncertainty of ± 2 seconds in the event times.

The temperatures measured within the front bedroom are shown in figures 63 and 64. Due to the long duration of the experiment, two figures were included; figure 63 shows the temperatures from the beginning to the end of the experiment, while figure 64 shows the temperatures measured in more detail over a smaller interval of time. Figure 64 shows the temperatures measured from the incipient stage of the fire, through full room involvement, and into the post-flashover stage of the fire in the front bedroom. The data is presented for various distances from the floor, illustrating the temperature profile within the room. The temperatures of all thermocouple locations are not plotted; a subset of thermocouples is adequate for describing the temperature trends at various elevations within the room. Data from all of the thermocouple tree temperature measurements are given in appendix D of this report.

Temperatures measured in the living room are shown in figures 65 through 68. Figures 65 and 66 show the temperatures measured on the south side of the living room (near the front bedroom), while

figures 67 and 68 show the temperatures measured on the north side of the living room. As with the front bedroom, temperatures are given versus time for selected heights above the floor. Two graphs are also presented for each measurement location in order to observe temperature increases over time in greater detail.

Temperatures measured within the hallway are shown in figures 69 and 70.

Temperatures measured in the middle bedroom are shown in figure 71 and 72.

The oxygen concentrations within the bedroom and the living room are shown in figure 73. The figures have been corrected for fire gas transit time and oxygen analyzer response time.

Table 20. Fuel load

Front bedroom

Item	Mass (kg)	Mass (lbm)
Mattresses	85.0	186.8
Bunk bed frames (wood)	56.0	123.2
Double bed frame (wood)	16.3	35.9
Trash can (ignition source)	0.6	1.4
Clothes[1]	81.2	178.7

Living room

Item	Mass (kg)	Mass (lbm)
Mattresses	135.1	297.2
Bunk bed frames (wood)	84.0	184.8
Television	65.3	143.6
Television	50.1	110.2
Dresser	62.7	138.0
Bureau	75.6	166.4
Lamp	2.5	5.4
Lamp	2.9	6.4
Clothes[1]	243.6	789.0
Total	**960.9**	**2113.9**

[1]The total quantity of clothing placed in the two rooms is known to be 324.8 kg (1052.0 lbm). The distribution of clothing between the two rooms has been estimated from video tapes and photographs of the experiment.

Table 21. Mattress construction and mass

Mattress	Construction	Mass (kg)	Mass (lbm)
A	34% felted cotton 33% polyurethane foam 33% polyester fiber pad	14.3	31.4
B	34% felted cotton 33% polyurethane foam 33% polyester fiber pad	14.2	31.2
C	75% polyurethane foam 15% blended cotton batting 10% polyester sheeting	11.5	25.2
D	51% blended cotton batting 43% recycled synthetic fiber 6% polyurethane foam	17.2	37.8
E	unknown	26.1	57.4
F	unknown	27.0	59.2
G	unknown	18.8	41.4
H	80% blended cotton batting 20% polyurethane foam	15.8	34.8
I	unknown	21.6	47.6
J	80% blended cotton batting 20% recycled synthetic fiber	25.8	56.8
K	unknown	27.8	61.2
Total		**220.0**	**484.0**

Table 22. Thermocouple elevations

Thermocouple Number	Distance From Floor (m)	Distance From Floor (ft)
1	2.46	8.09
2	2.19	7.17
3	1.88	6.17
4	1.58	5.17
5	1.27	4.17
6	0.97	3.17
7	0.66	2.17
8	0.36	1.17
9[2]	0.05	0.17

[2]The temperature of thermocouple 9 was not measured for the thermocouple trees in the front bedroom and living room.

Table 23. Sequence of events

Event	Time (s)
Ignition	0
Flames to top of trash can	14
Flames to top of lower mattress	52
Ignition of pillow case on the bottom bunk of the bunk bed to the west of the waste basket	105
Ignition of pillow on the bottom bunk of the bunk bed to the west of the waste basket	120
Ignition of clothes hanging from top mattress of bunk bed	130
Flames to bottom of top bunk bed mattress	132
Flames reach ceiling	142
Flames out front window of front bedroom	160
Top glass of west window of front bedroom broken out	170
Flames higher than the roof, west side of the house	185
Roof ignited	200
Front side of roof fully involved	285
Fire out of middle bedroom exterior door	410
Middle bedroom window cracks	420
Middle bedroom window begins to break out	442
Flame out south living room window	450
Flames down hall	455
Intermittent flame out middle bedroom	490
Flame out north living room window	560

Table 23. Sequence of events, continued

Event	Time (s)
Ignition of middle bedroom floor	587
Carpet ignited in middle bedroom, flame out 100% of middle bedroom exterior door	600
Flames retreat back inside middle bedroom	610
Neutral plane established at exterior middle bedroom door, flames out top 2/3 to 3/4 of door	615
Window of middle bedroom breaks out totally. Flames emerge from window. Flames extend approximately 3 m (10 ft) to 4.5 m (15 ft) out of middle bedroom exterior door	630
Front bedroom south door fails	725
Ceiling falls in middle bedroom and hall	1015
Flames out south side peak attic vent	1020
Suppression begins, attack via front door. Front door failed at an unknown time between 660 s and 960 s.	1215

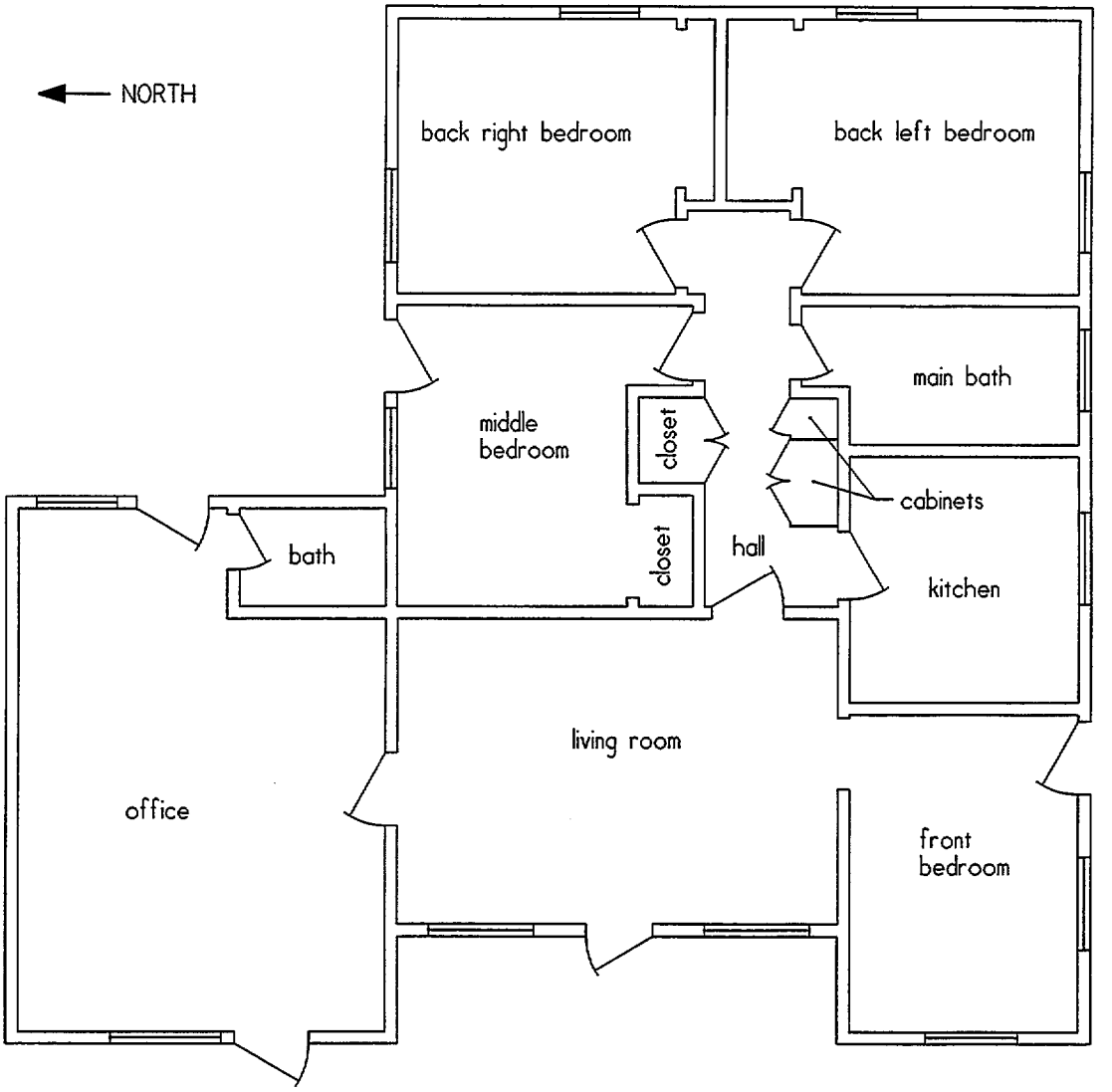

Figure 58. Plan view of the structure

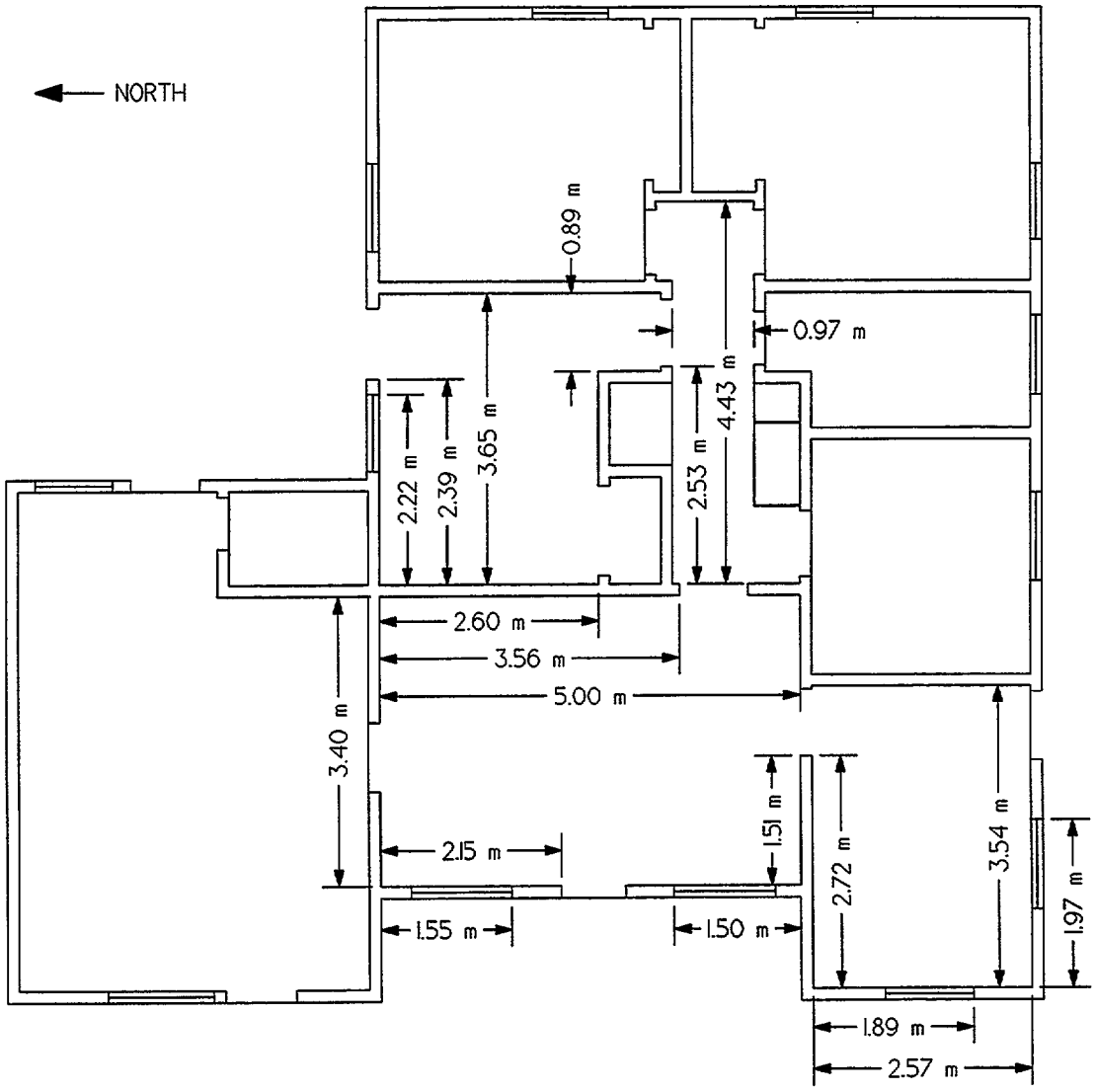

Figure 59. Plan view of the structure with dimensions

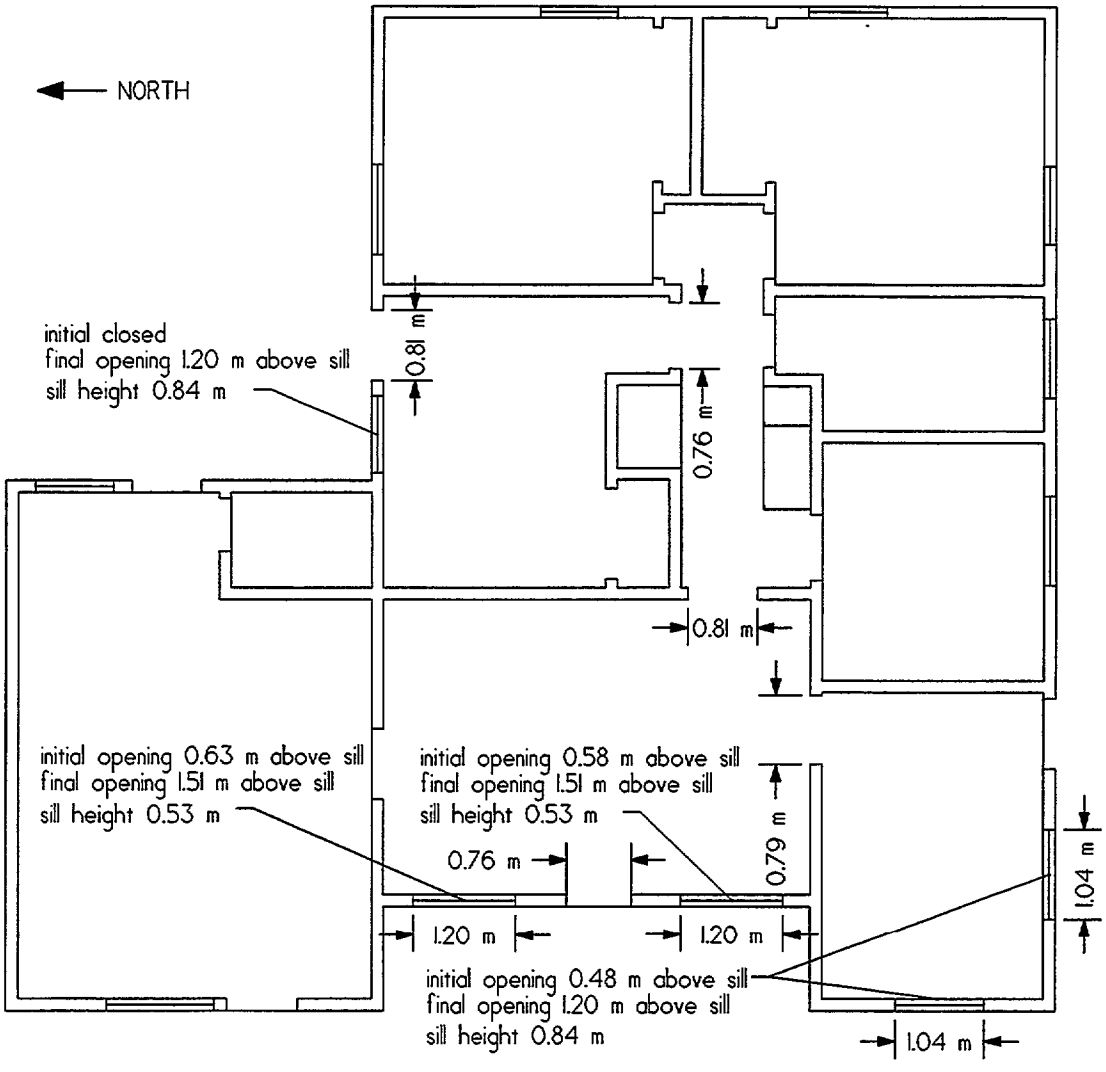

Figure 60. Window and door openings

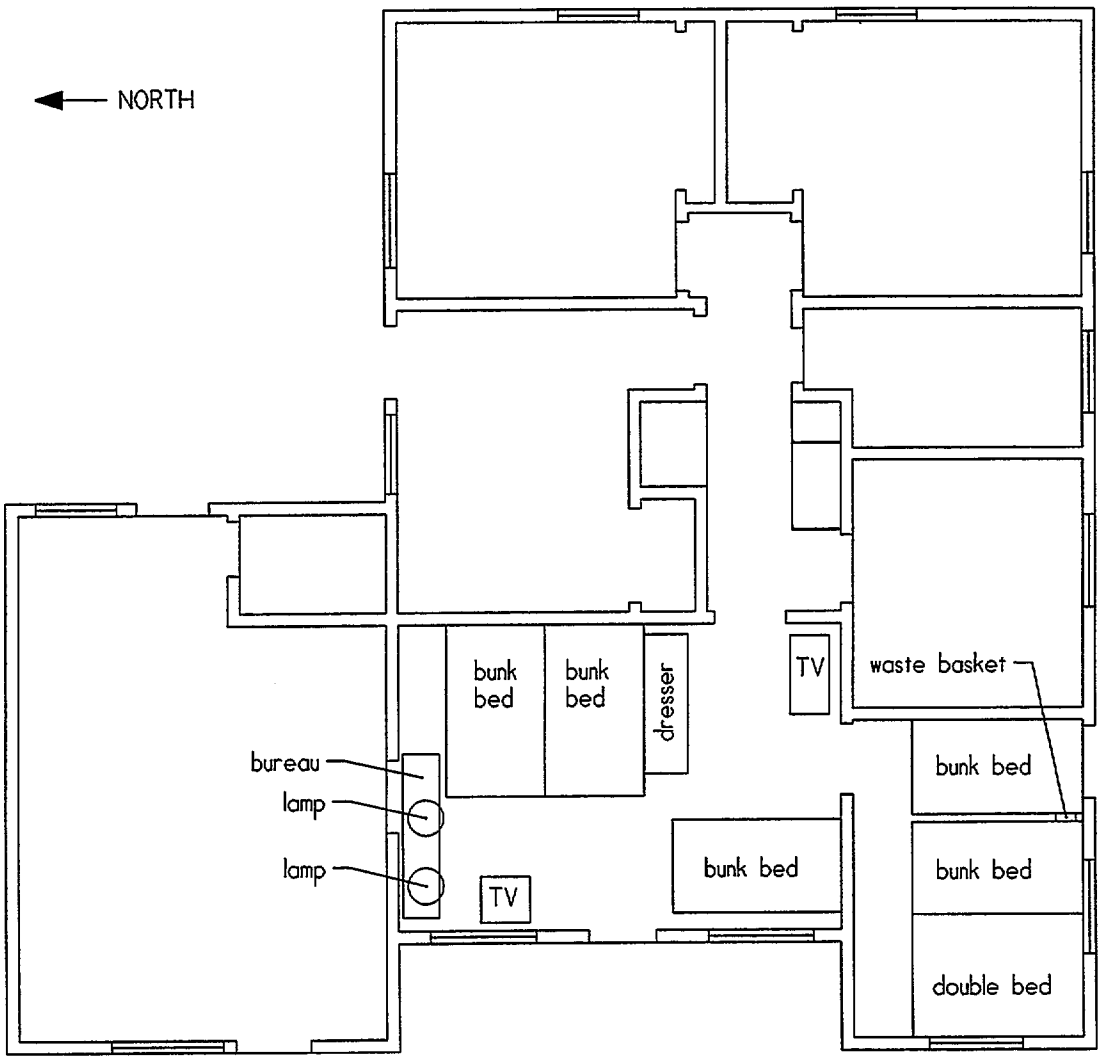

Figure 61. Plan view of the structure with fuel packages

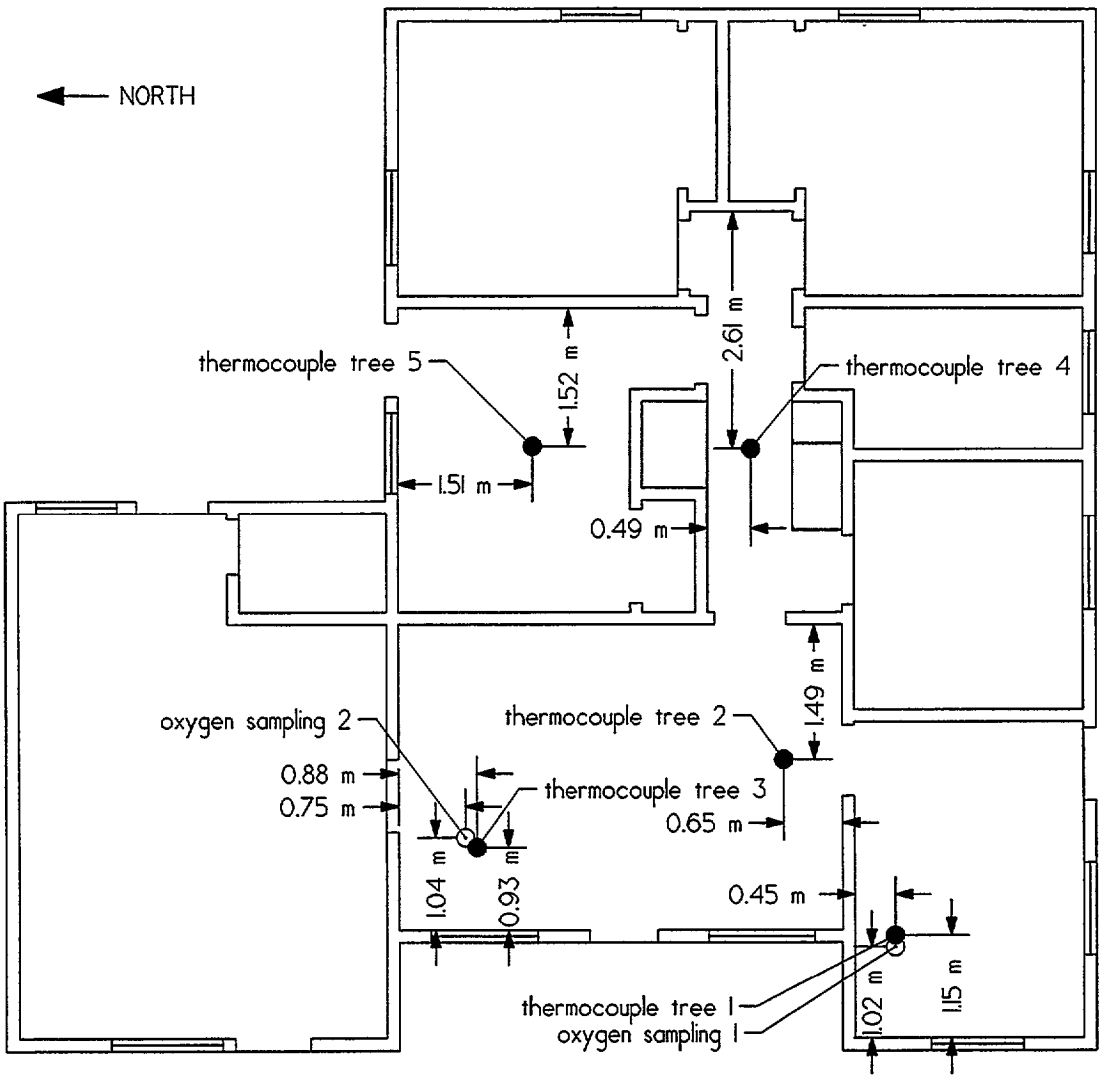

Figure 62. Plan view of the structure with instrumentation

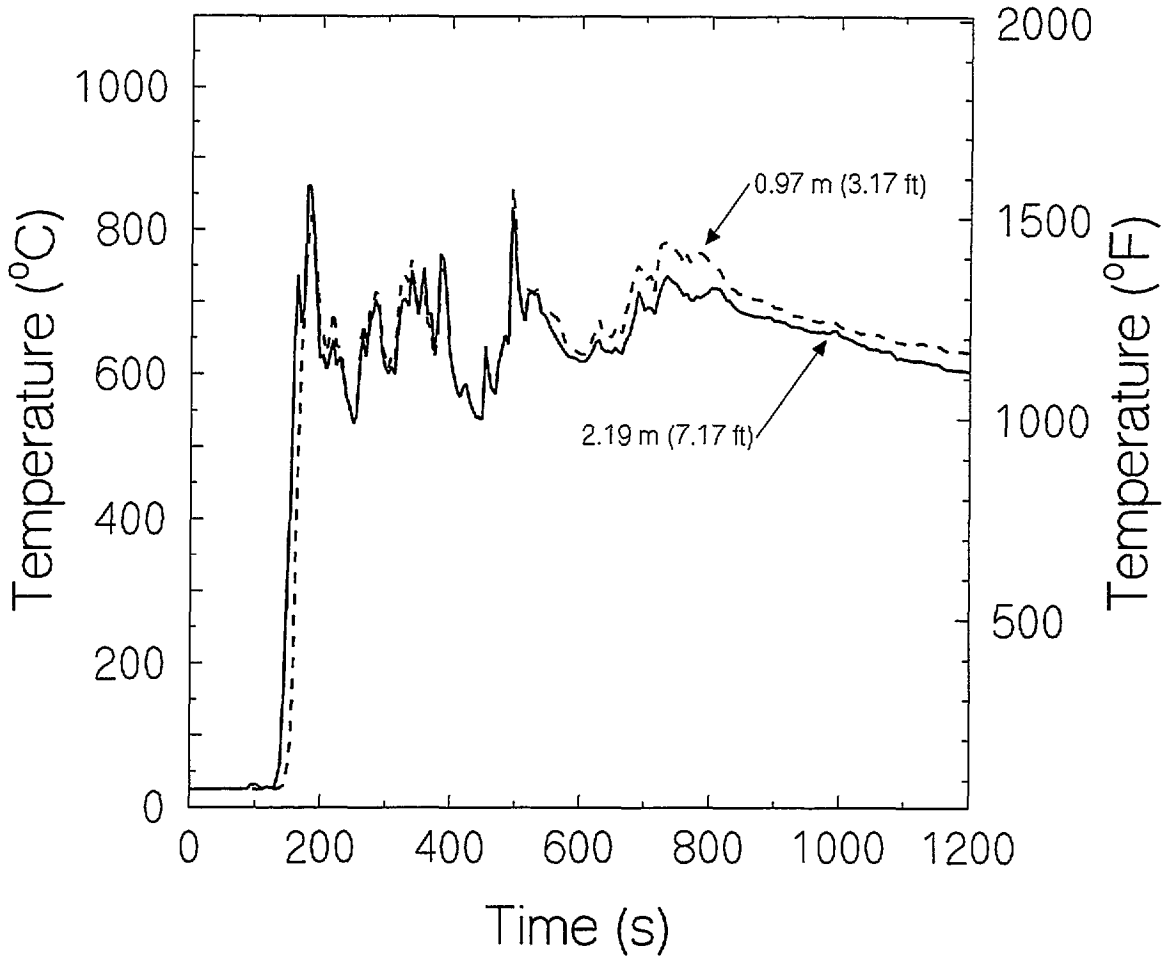

Figure 63. Front bedroom temperatures (distances above floor)

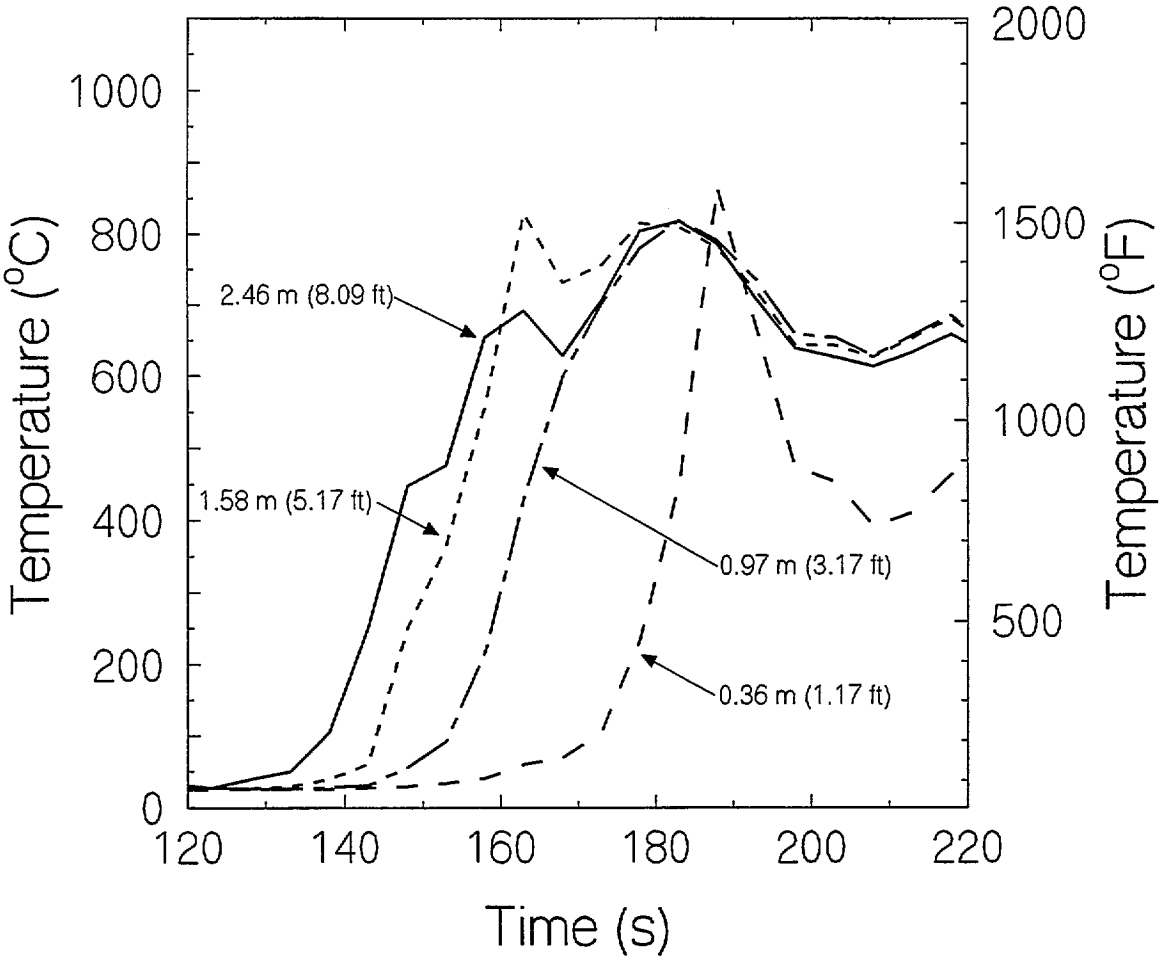

Figure 64. Detailed front bedroom temperatures (distances above floor)

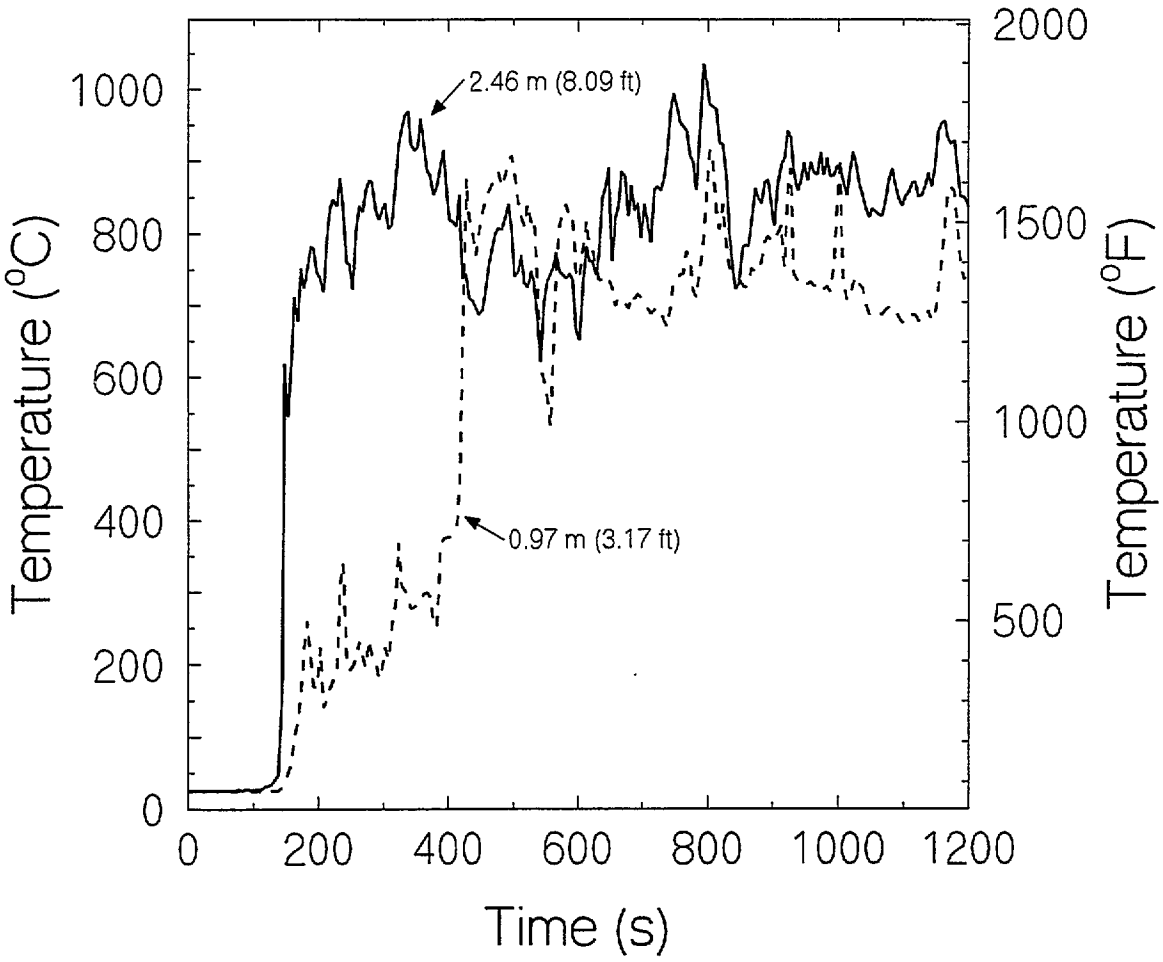

Figure 65. Living room temperatures, southern location (distances above floor)

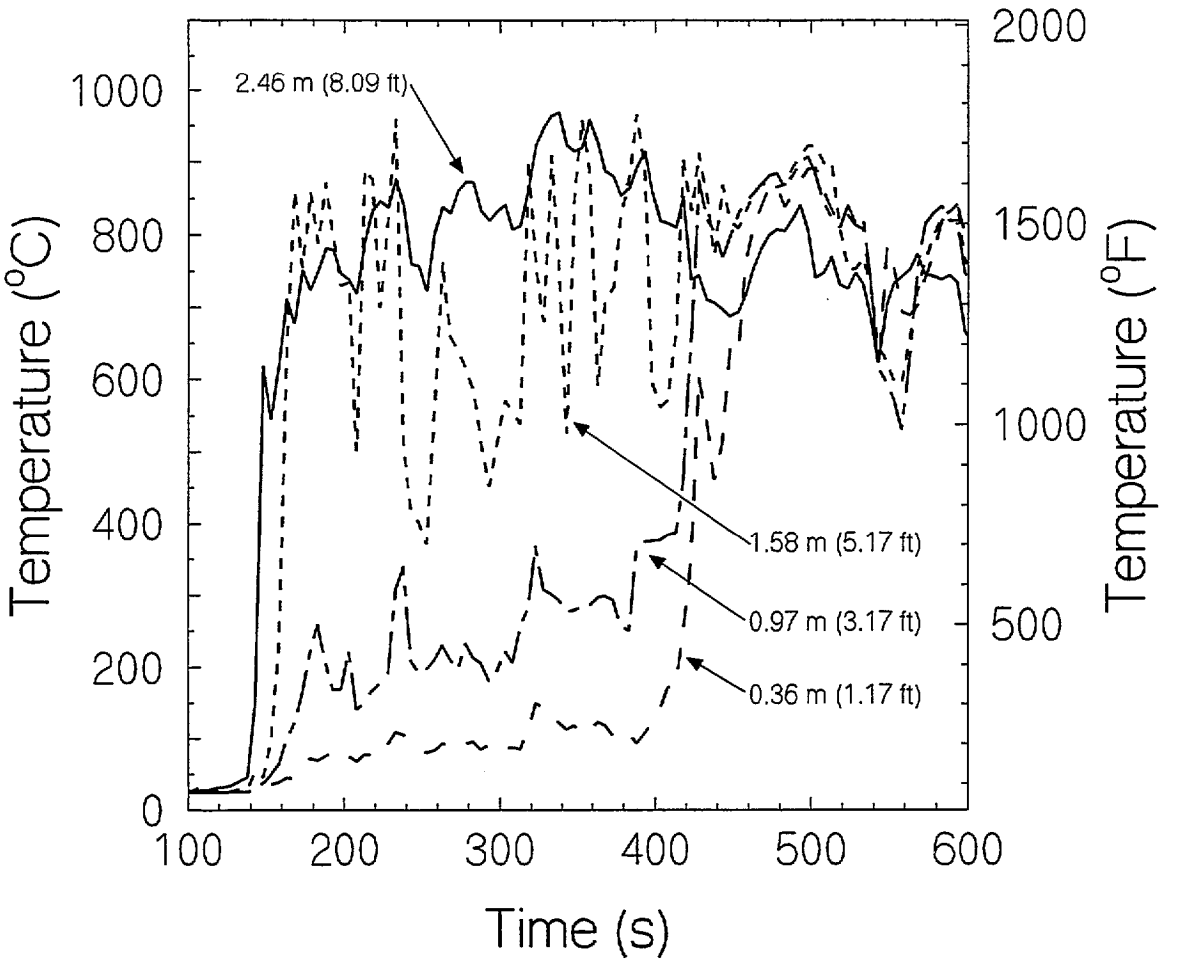

Figure 66. Detailed living room temperatures, southern location (distances above floor)

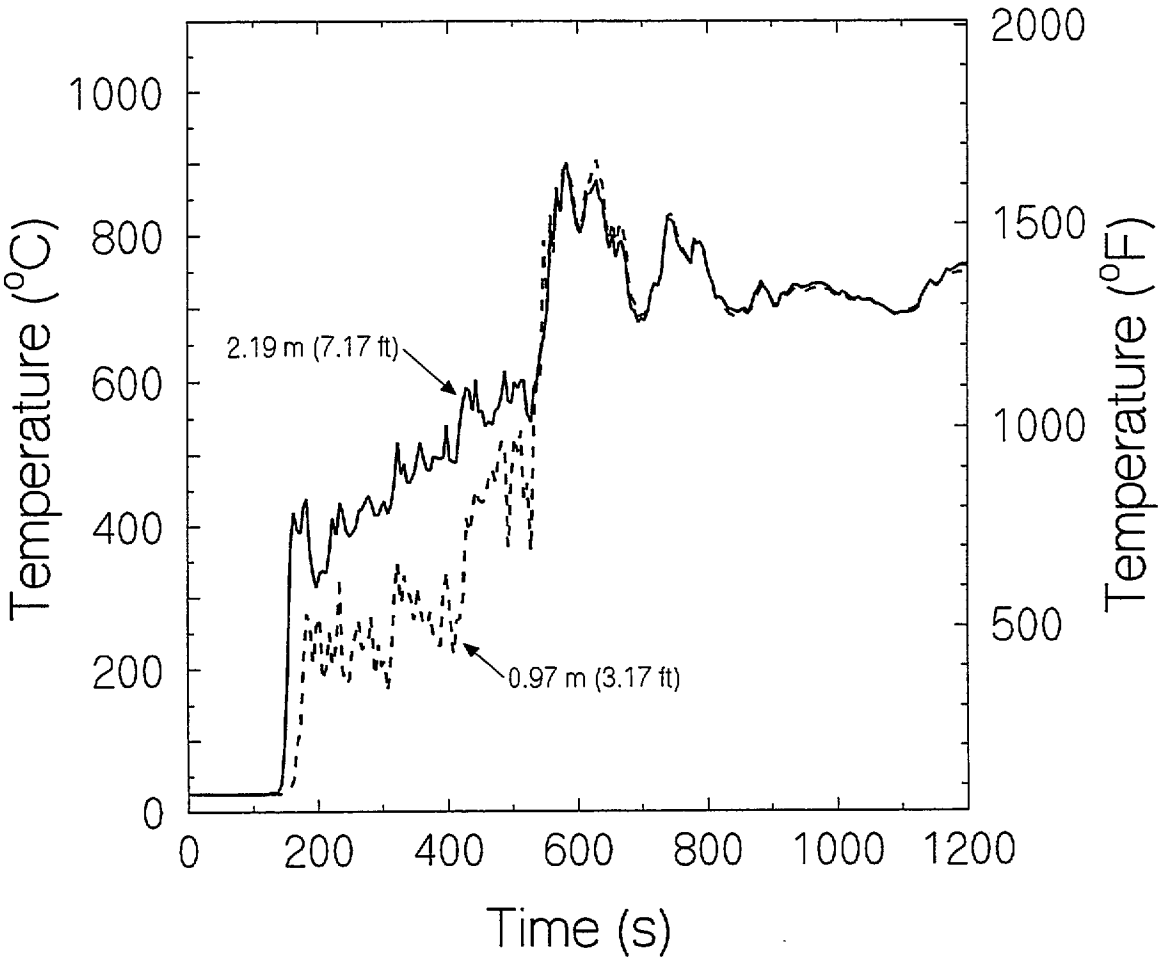

Figure 67. Living room temperatures, northern location (distances above floor)

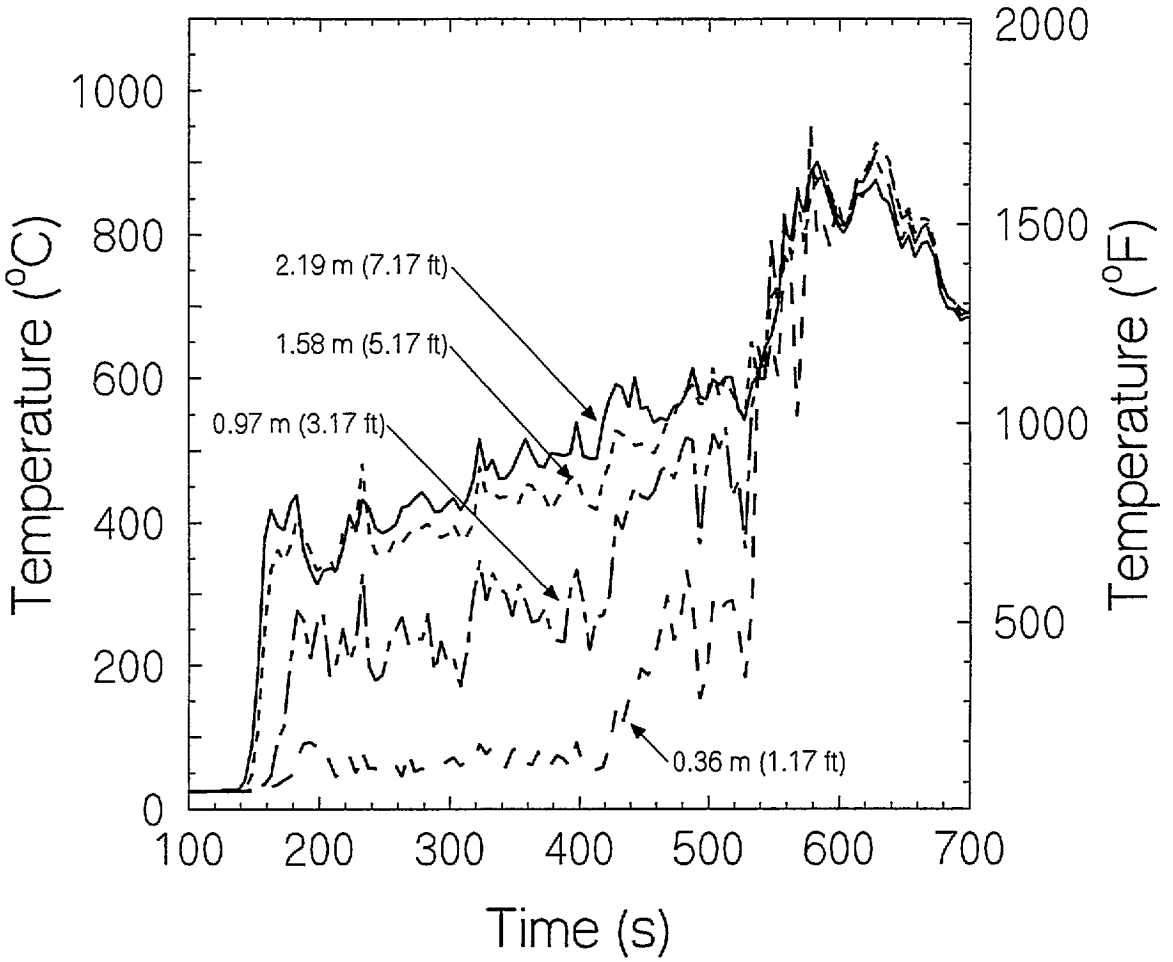

Figure 68. Detailed living room temperatures, northern location (distances above floor)

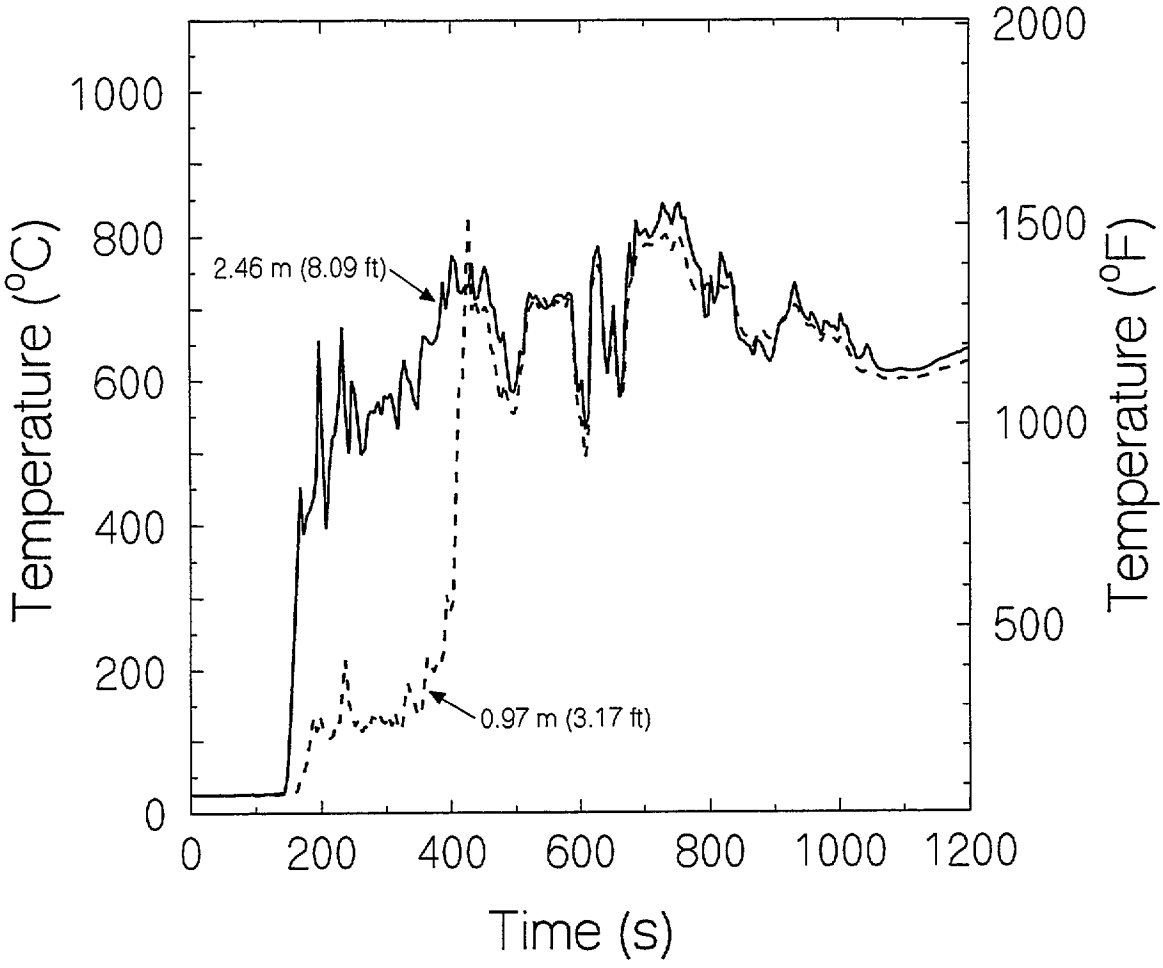

Figure 69. Hall temperatures (distances above floor)

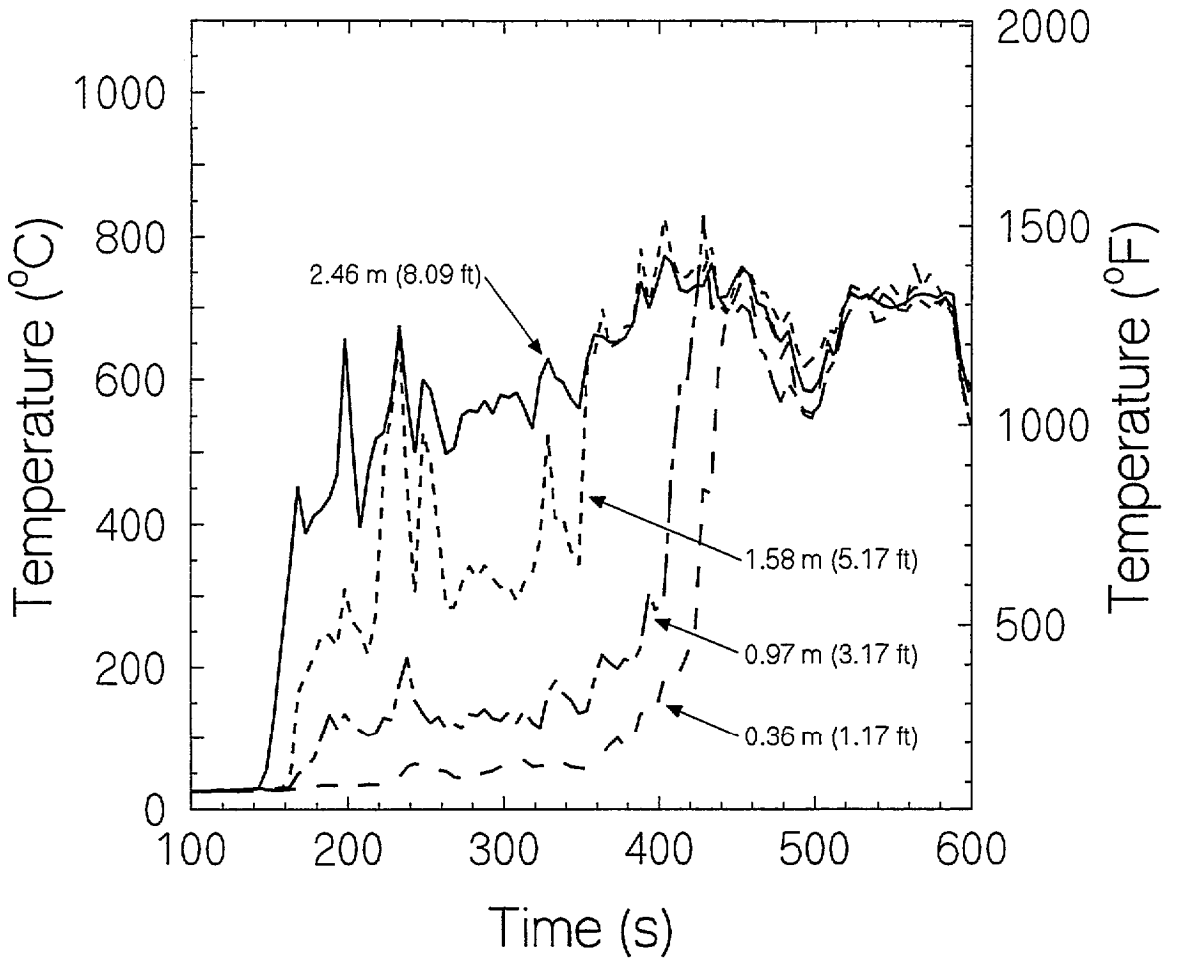

Figure 70. Detailed hall temperatures (distances above floor)

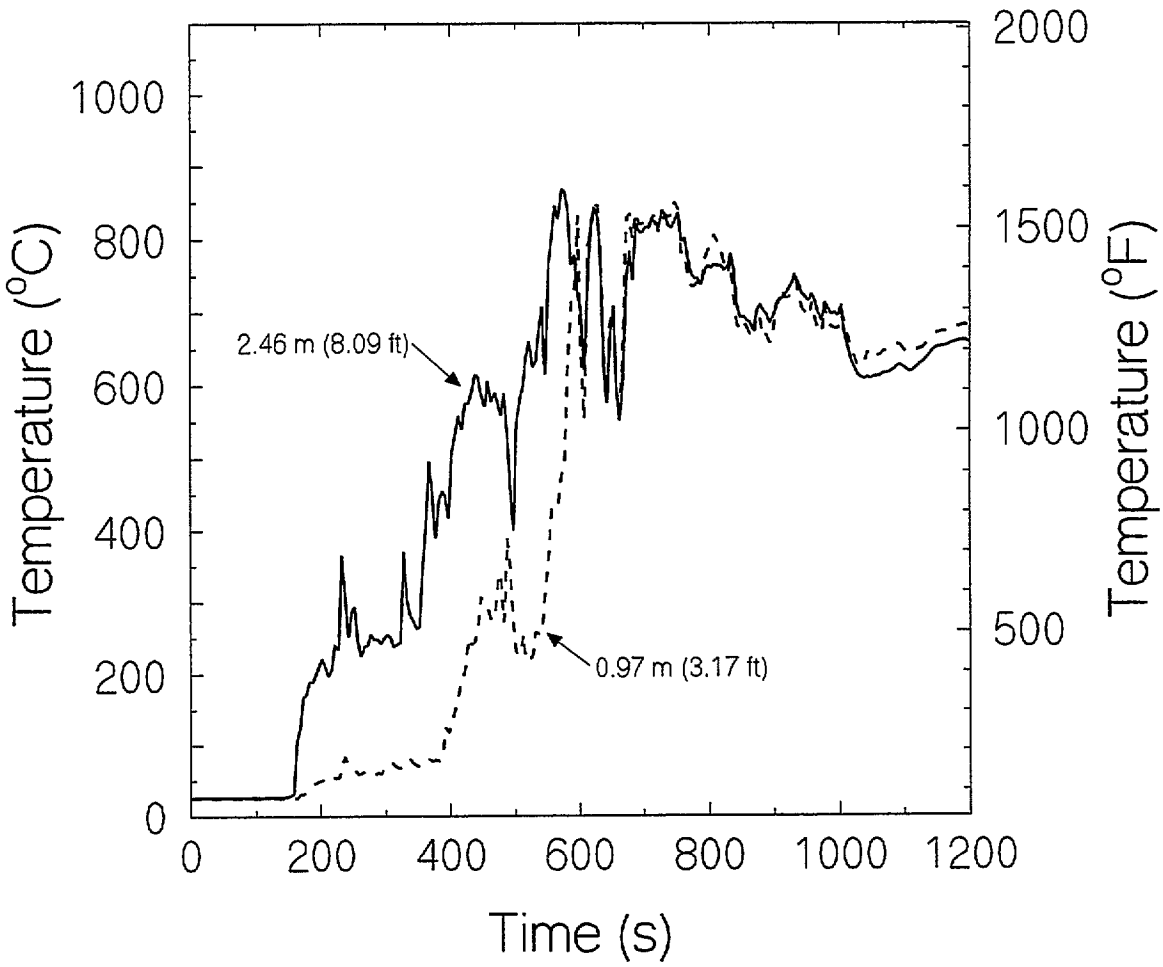

Figure 71. Middle bedroom temperatures (distances above floor)

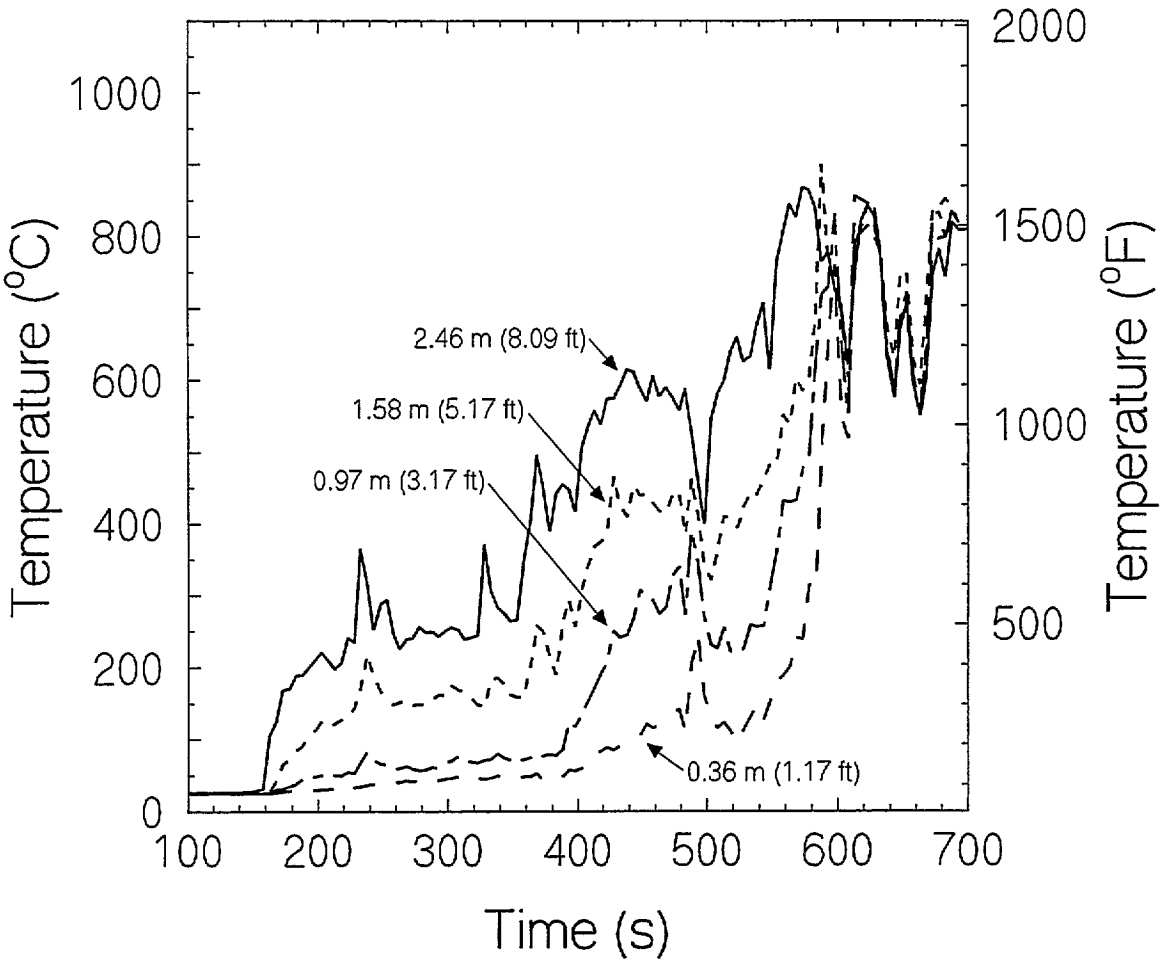

Figure 72. Middle bedroom temperatures (distances above floor)

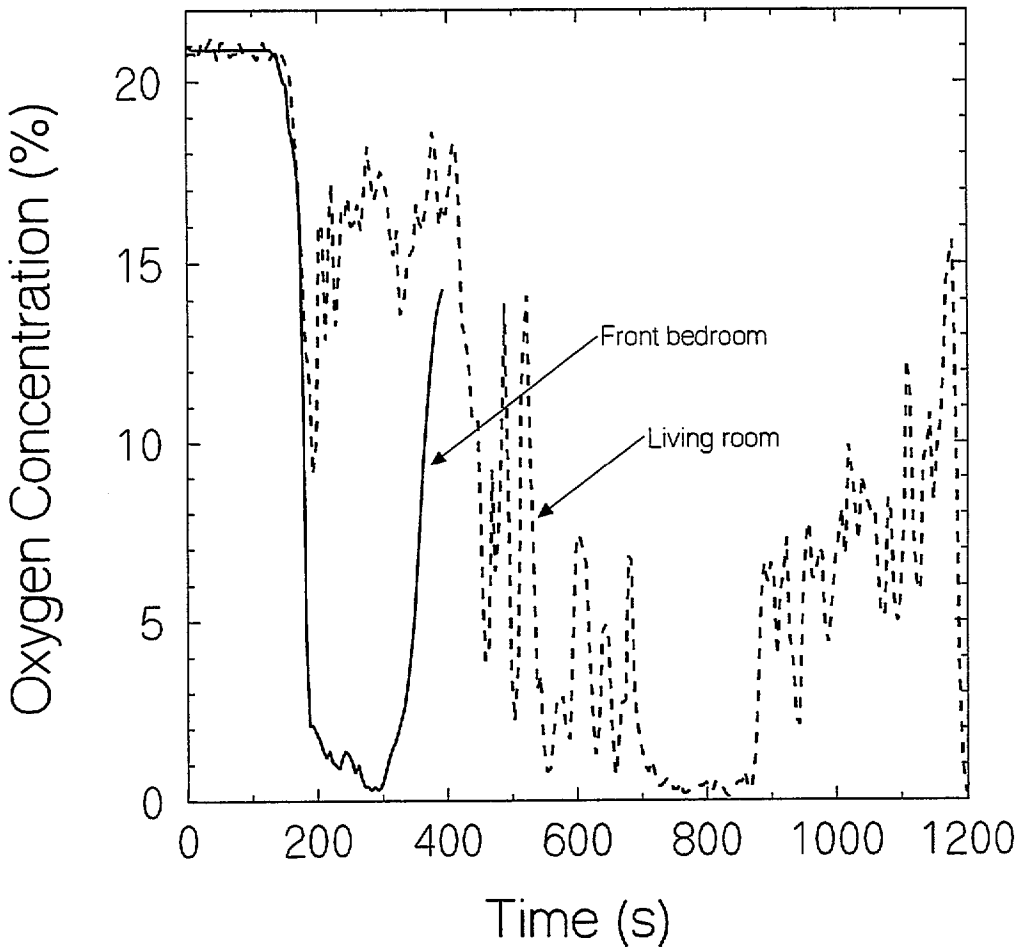

Figure 73. Room oxygen concentrations

6.0 BEDROOM EXPERIMENTS AT 1323 SOUTH BRISTOL STREET

The two experiments addressed in this section occurred on July 15, 1994, at 1323 South Bristol Street. The measurements included: temperatures within various rooms, smoke detector activation time, sprinkler activation time, and time to full room involvement. Data were recorded every 5 s with a computerized acquisition system.

The experiments were conducted in the same house, with the same fire room and instrument layout. Table 24 shows the measurements made during each experiment. The fire source in the experiments was a propane burner.

6.1 Structure

The building used for the fire experiments was a vacant one story single family dwelling. The building was of wood frame construction, with gypsum board interior walls and ceilings: Exterior walls consisted of stucco over paper and wire mesh. The floors throughout the building, except the kitchen and bathroom, were constructed of hardwood. The fire room floor was covered with gypsum board to prevent ignition of the floor near the burner. The floors in the kitchen and bathroom were covered with vinyl flooring, and the hardwood floor of the living room was covered with carpet.

The building had no basement, but it did have a ventilated crawl space. The pitched roof of the building consisted of several layers of asphalt shingles and tar and gravel over redwood planks.

The layout of the building is shown in figure 74, and includes three bedrooms, a bathroom, living room, kitchen, and garage. The front bedroom served as the fire room for both experiments. All doors in the building were closed during the experiments except the middle bedroom closet, the door connecting the middle bedroom and the hall, and the exterior kitchen door. All windows of the fire room were covered on the inside with gypsum board, with the remaining windows of the building covered with plywood.

The distance from the floor to the ceiling in the fire room was 2.43 m (7.97 ft), while the distance from the floor to the ceiling in the other rooms of the building was 2.44 m (8.01 ft). The widths of the door openings are as follows: exterior doors were 0.91 m (36 in), interior doors were 0.76 m (30 in), and closet doors were 0.61 m (24 in). The standard uncertainties in the ceiling height and door opening dimensions are estimated at ± 0.01 m (± 0.4 in).

6.2 Fuel Load

The experiments were conducted with a propane burner as the fire source. The low momentum rectangular burner, with burning surface dimensions of approximately 422 mm (16.6 in) by 368 mm (14.5 in), was made from an open top steel box with the gas inlet on one side. The top surface of the burner consisted of ceramic fiber insulation with an expanded metal retainer. The propane flow rate during experiment 1, also referred to as the "low flow" experiment, was approximately 3.22×10^{-3} m^3/s (409 ft^3/h) at 20 °C (68 °F) and 101.32 kPa (14.696 psi) of absolute pressure. During experiment 2, also referred to as the "high flow" experiment, the propane flow rate was approximately 6.44×10^{-3} m^3/s (818 ft^3/h) at 20 °C (68 °F) and 101.32 kPa (14.696 psi) of absolute

pressure. The calculated net heat release rates resulting from the above flow rates, assuming stoichiometric combustion, was approximately 270 kW (0.93 million Btu/h), and 550 kW (1.9 million Btu/h), respectively. The location of the burner within the room is shown in figure 75.

6.3 Smoke Detector

A smoke detector was installed in the hallway outside the bedrooms according to NFPA 72, *National Fire Alarm Code*. The detector was a single station, battery powered, UL listed, ionization type smoke detector. The activation time for the smoke detector was recorded manually by an observer equipped with a stop watch. The location of the smoke detector is shown in figure 76.

6.4 Sprinklers

To measure the activation times of typical residential type sprinklers, one pendent sprinkler was installed in the ceiling of the fire room, and one sidewall sprinkler was installed on the wall of the fire room. It should be noted that either a single sidewall or pendent sprinkler would be sufficient for this room if a residential sprinkler system was installed in this house according to NFPA 13D, *Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes,* and the sprinklers's listing.

The sprinklers had glass bulb elements with activation temperatures of 68 °C (155 °F). Each sprinkler was connected to a pressure switch with copper tubing. The tubing was pressurized with approximately 210 kPa (30 psi) of air pressure. When a sprinkler actuated, the signal was recorded on the data acquisition system, and timed via an indicator light.

In addition to the sprinklers installed for the measurement of activation time, an additional sidewall sprinkler, attached to a manually controlled water supply, was installed in the fire room for experimental safety.

The locations of the various sprinklers are shown in figure 76. The center of the sidewall sprinkler was 0.13 m (4.9 in) from the ceiling, with the deflector positioned 0.07 m (2.8 in) from the wall. The deflector of the pendent sprinkler was 0.07 m (2.8 in) from the ceiling. The standard uncertainties in the sprinkler locations are estimated at ± 0.01 m (± 0.4 in).

6.5 Temperature Measurement

The temperatures were measured with 0.51 mm (0.02 in) nominal diameter bare bead, type K thermocouples. The floor to ceiling thermocouple arrays were in the bedroom, hallway, and living room as shown in figure 76. The elevations of the thermocouples above the floor are given in table 25 for the bedroom, table 26 for the hallway, and table 27 for the living room.

Thermocouples were positioned within 20 mm (0.79 in) of the pendent and sidewall sprinklers used to measure activation time. A thermocouple was also placed within a sheet of crumpled newspaper on the floor of the front bedroom. This thermocouple was used to detect ignition of the newspaper, an indication that full room involvement had occurred.

The standard uncertainty in temperature measurement is ± 2.2 °C (± 4.0 °F) as derived from the thermocouple wire manufacturer. The standard uncertainties in the thermocouple locations are estimated at ± 0.01 m (± 0.4 in).

6.5 Results

The sequences of events for the experiments are given in table 28, with an estimated standard uncertainty of ± 2 seconds in the event times. Note that table 28 is missing a value for the high flow experiment since a smoke detector was not installed.

The temperatures measured within the fire rooms are shown in figures 77 and 78. The data are presented for various distances from the floor, illustrating the temperature profile within the room. The temperatures of all thermocouple locations are not plotted; a subset of thermocouples is adequate for describing the temperature trends at various elevations within the room. Data from all of the thermocouple tree temperature measurements are presented in appendix E of this report.

The average temperatures of the region from 1.83 m (6.00 ft) above the floor to ceiling level are displayed in figure 79. The average temperature was calculated from all of the thermocouples within the region, i.e. thermocouples 1 through 7. The thermocouple temperatures were spatially weighted due to the closer thermocouple spacing near the ceiling. The temperature of the space between the ceiling and first thermocouple was assumed equal to the temperature of the first thermocouple.

The temperatures of the thermocouples at the sprinkler locations are plotted in figures 80 and 81.

Temperatures measured within the hallway are shown in figures 82 and 83. As with the fire room, temperatures are given versus time for selected heights above the floor. The average temperatures of the region from 1.84 m (6.04 ft) above the floor to ceiling level are displayed in figure 84.

Temperatures measured in the living room are graphed in figures 85 and 86. The average temperatures of the region from 1.84 m (6.04 ft) above the floor to ceiling level are displayed in figure 87. Note that the average temperature for the living room was calculated from thermocouples 1 through 4, since the thermocouples were spaced at greater intervals than in the bedroom and hallway.

Table 24. Instrumentation

	Experiment	
	1	2
	Low Flow	High Flow
Temperatures	●	●
Smoke detector activation time	●	
Sprinkler activation time	●	●
Time to full room involvement	●	●

Table 25. Bedroom thermocouple elevations

Thermocouple Number	Distance From Floor (m)	Distance From Floor (ft)
1	2.41	7.89
2	2.36	7.73
3	2.28	7.48
4	2.21	7.23
5	2.13	6.99
6	1.98	6.50
7	1.83	6.00
8	1.68	5.51
9	1.53	5.02
10	1.38	4.53
11	1.23	4.04
12	1.08	3.54
13	0.93	3.05
14	0.78	2.56
15	0.63	2.07
16	0.48	1.58
17	0.33	1.08
18	0.18	0.59

Table 26. Hallway thermocouple elevations

Thermocouple Number	Distance From Floor (m)	Distance From Floor (ft)
1	2.42	7.92
2	2.37	7.76
3	2.29	7.51
4	2.22	7.27
5	2.14	7.02
6	1.99	6.53
7	1.84	6.04
8	1.69	5.55
9	1.54	5.05
10	1.39	4.56
11	1.24	4.07
12	1.09	3.58
13	0.94	3.08
14	0.79	2.59
15	0.64	2.10
16	0.49	1.61
17	0.34	1.12
18	0.19	0.62

Table 27. Living room thermocouple elevations

Thermocouple Number	Distance From Floor (m)	Distance From Floor (ft)
1	2.29	7.51
2	2.14	7.02
3	1.99	6.53
4	1.84	6.04
5	1.69	5.54
6	1.54	5.05

Table 28. Sequence of events

Event	Elapsed time (s) Experiment 8 Low Flow	Experiment 9 High Flow
Ignition	0	0
Smoke detector actuation	29	-
Pendent sprinkler actuation	11	6
Sidewall sprinkler actuation	26	20
Transition to full room involvement	-	218
End of experiment	325	226

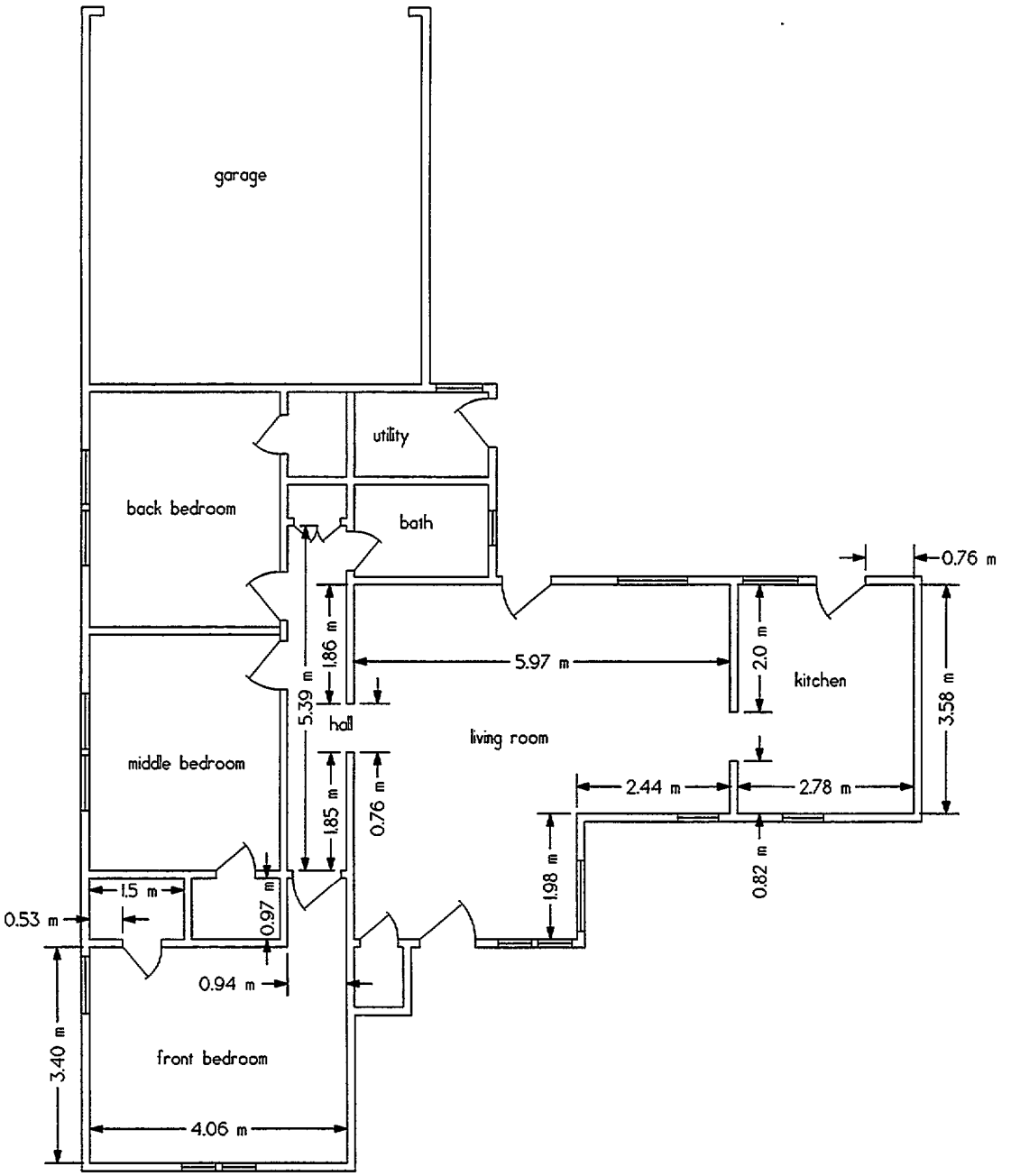

Figure 74. Plan view of the structure

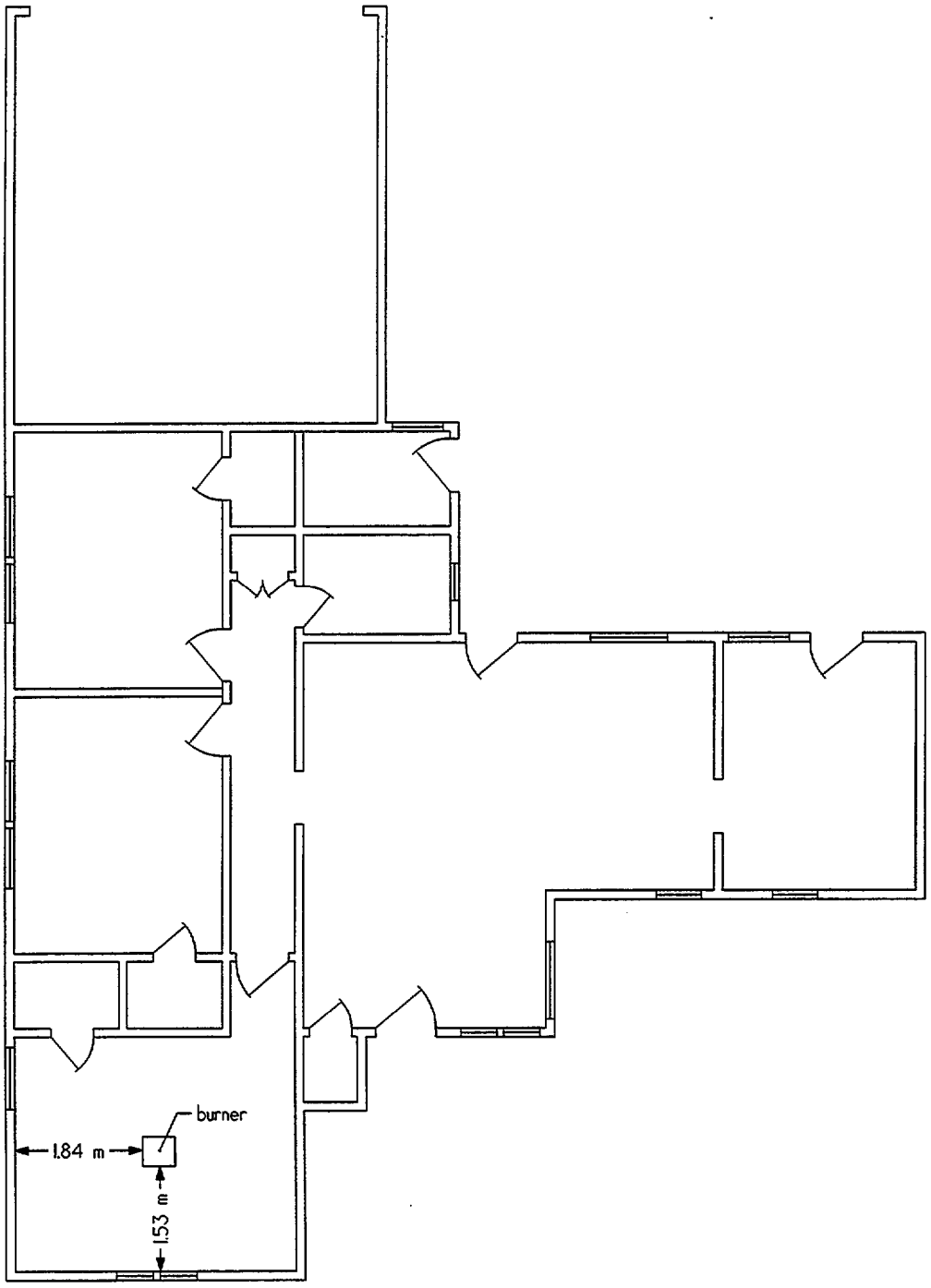

Figure 75. Plan view of the bedroom with the propane burner installed

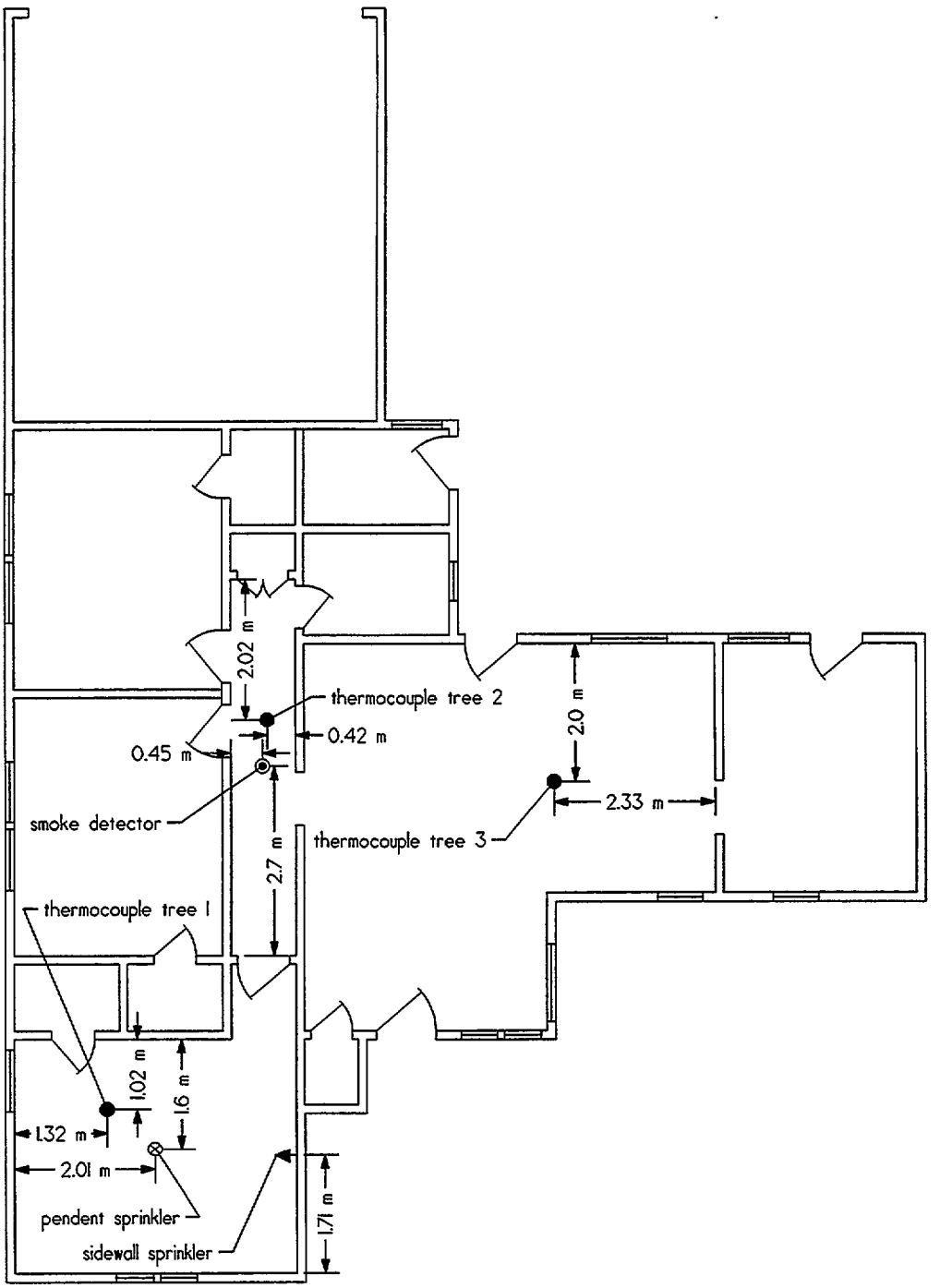

Figure 76. Plan view of the structure with instrumentation

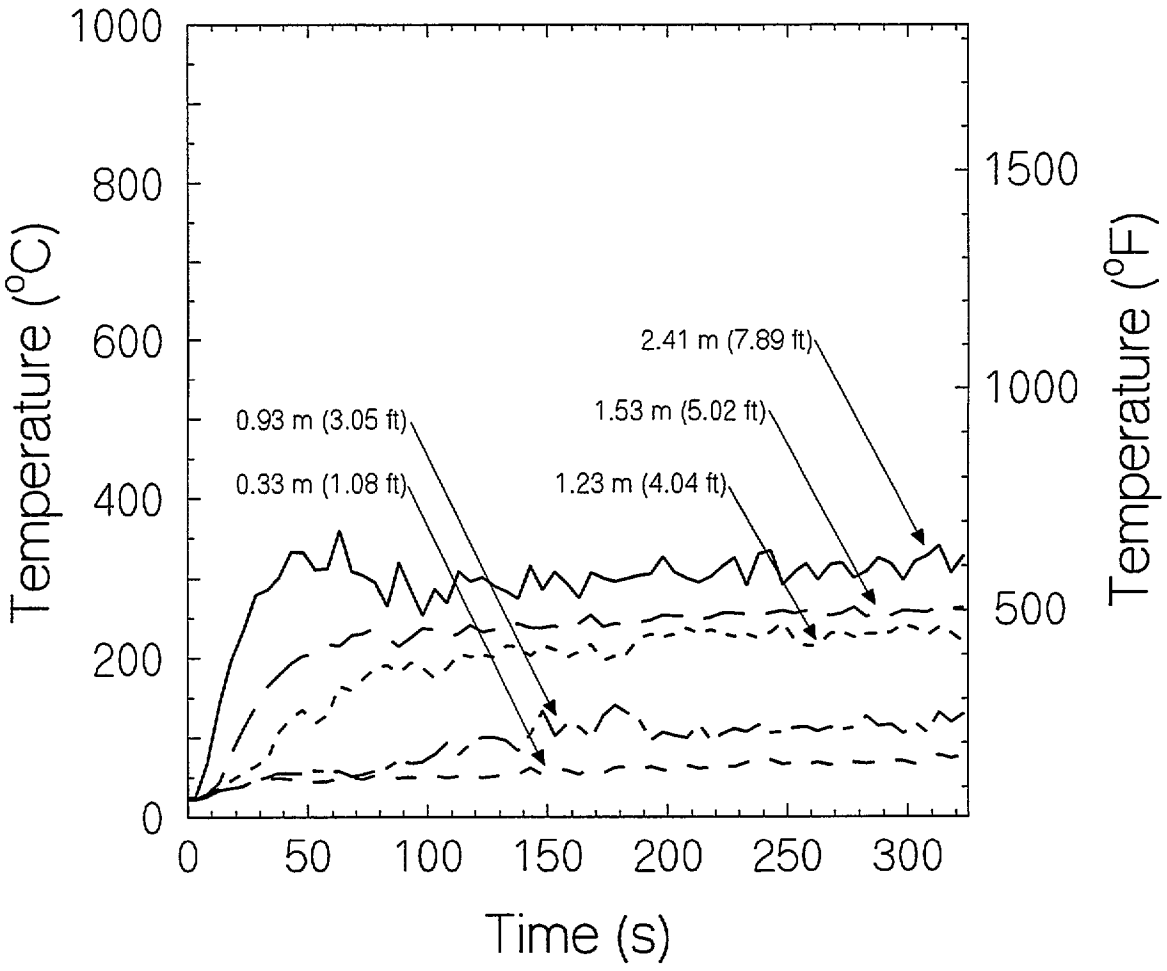

Figure 77. Bedroom temperatures, low flow experiment (distances above floor)

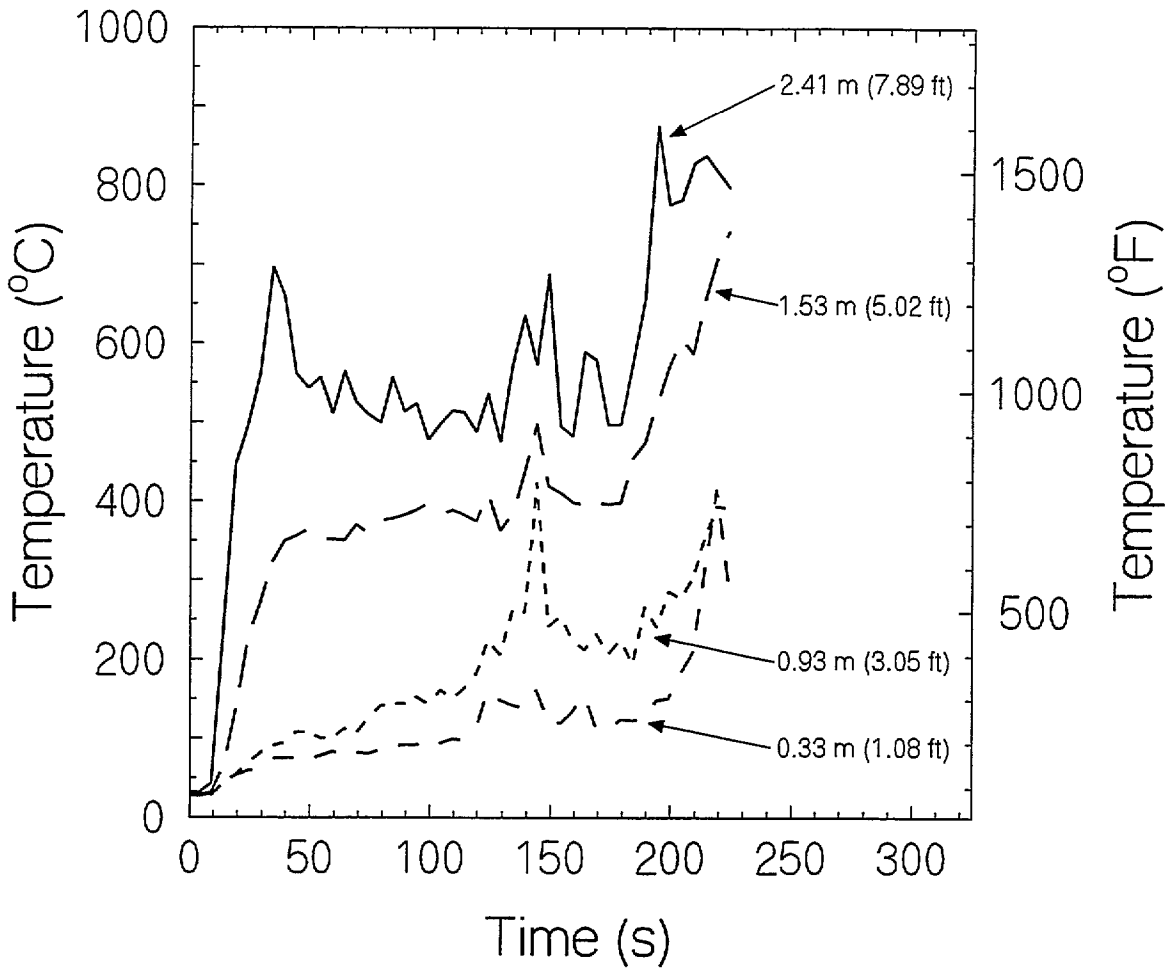

Figure 78. Bedroom temperatures, high flow experiment (distances above floor)

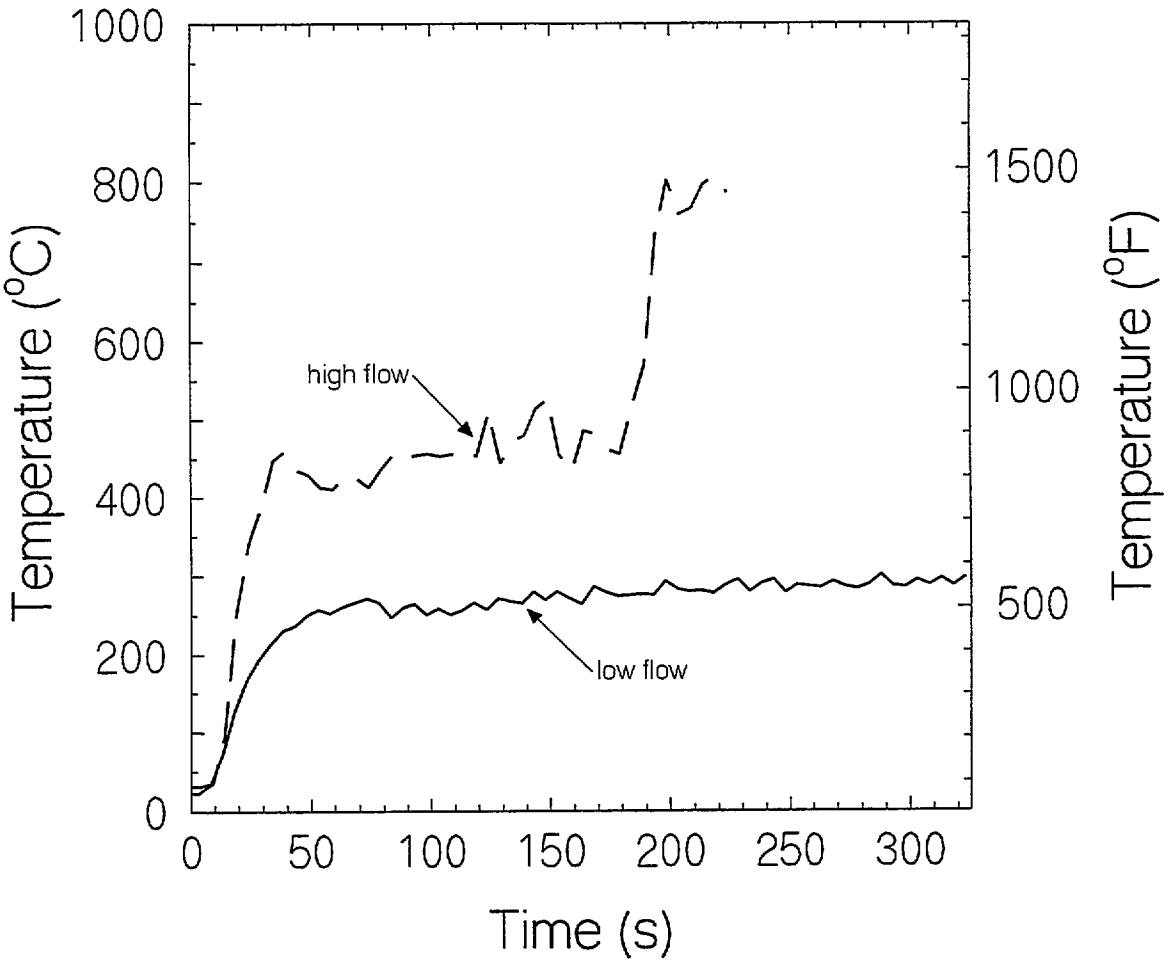

Figure 79. Average bedroom temperatures, 1.83 m (6.00 ft) to 2.43 m (7.97 ft) above the floor

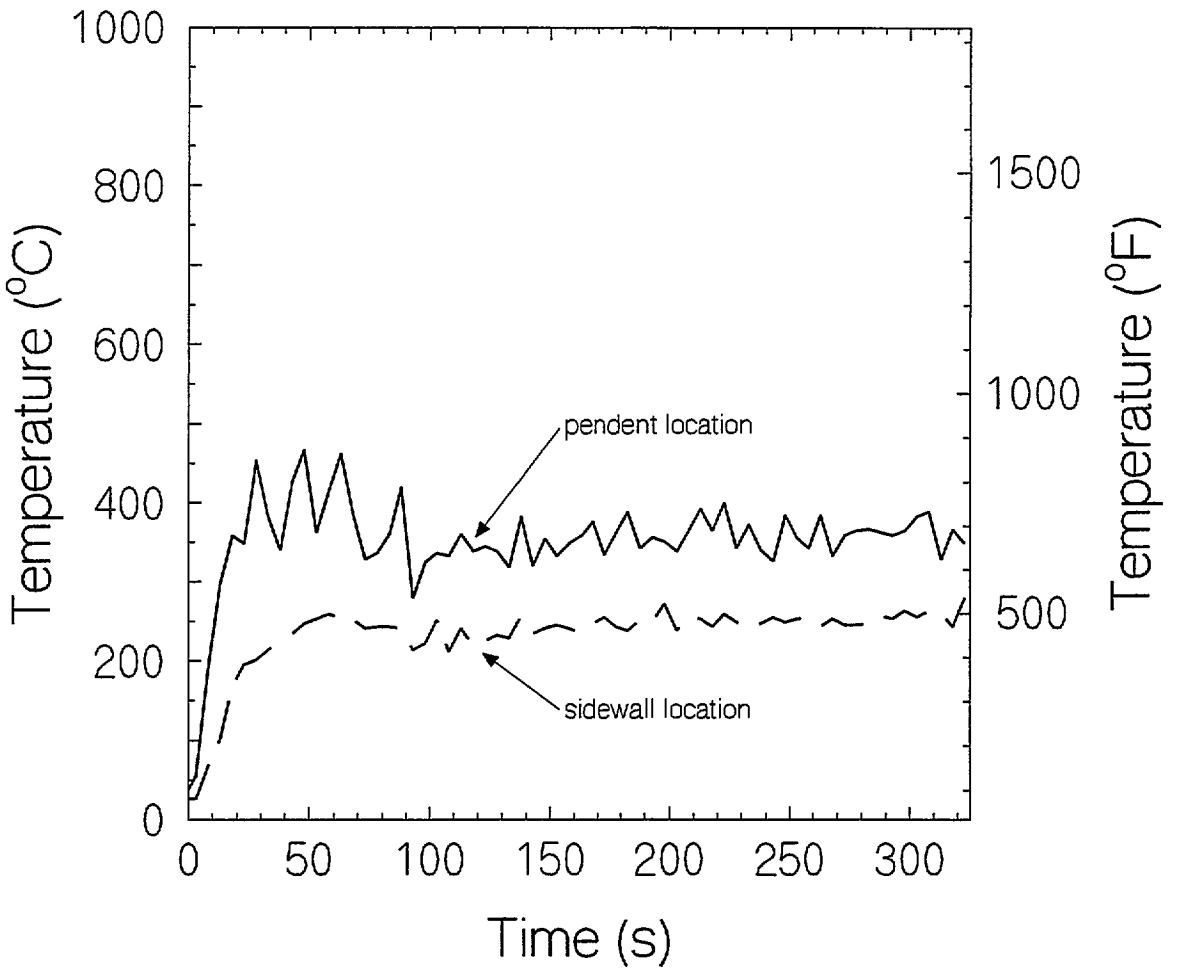

Figure 80. Sprinkler thermocouple temperatures, low flow experiment

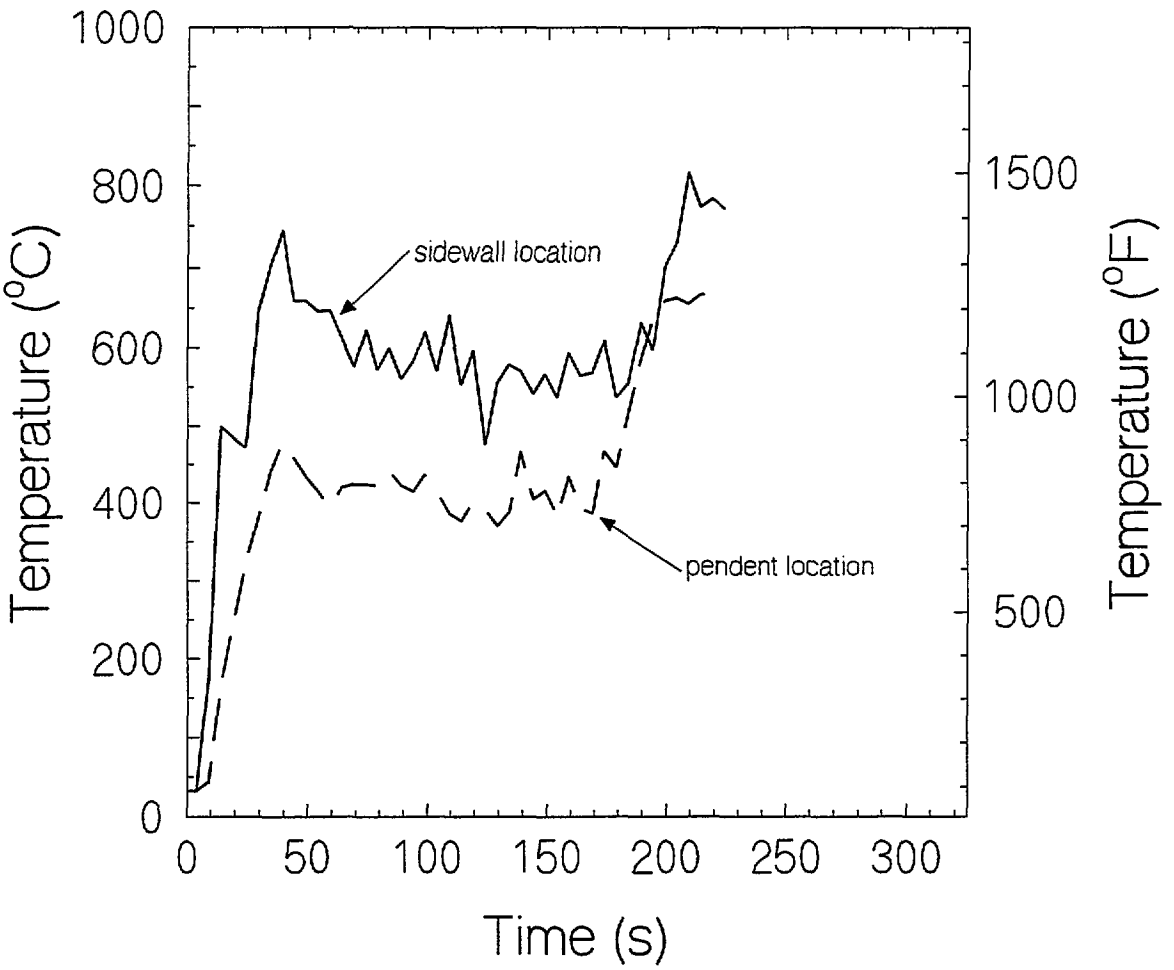

Figure 81. Sprinkler thermocouple temperatures, high flow experiment

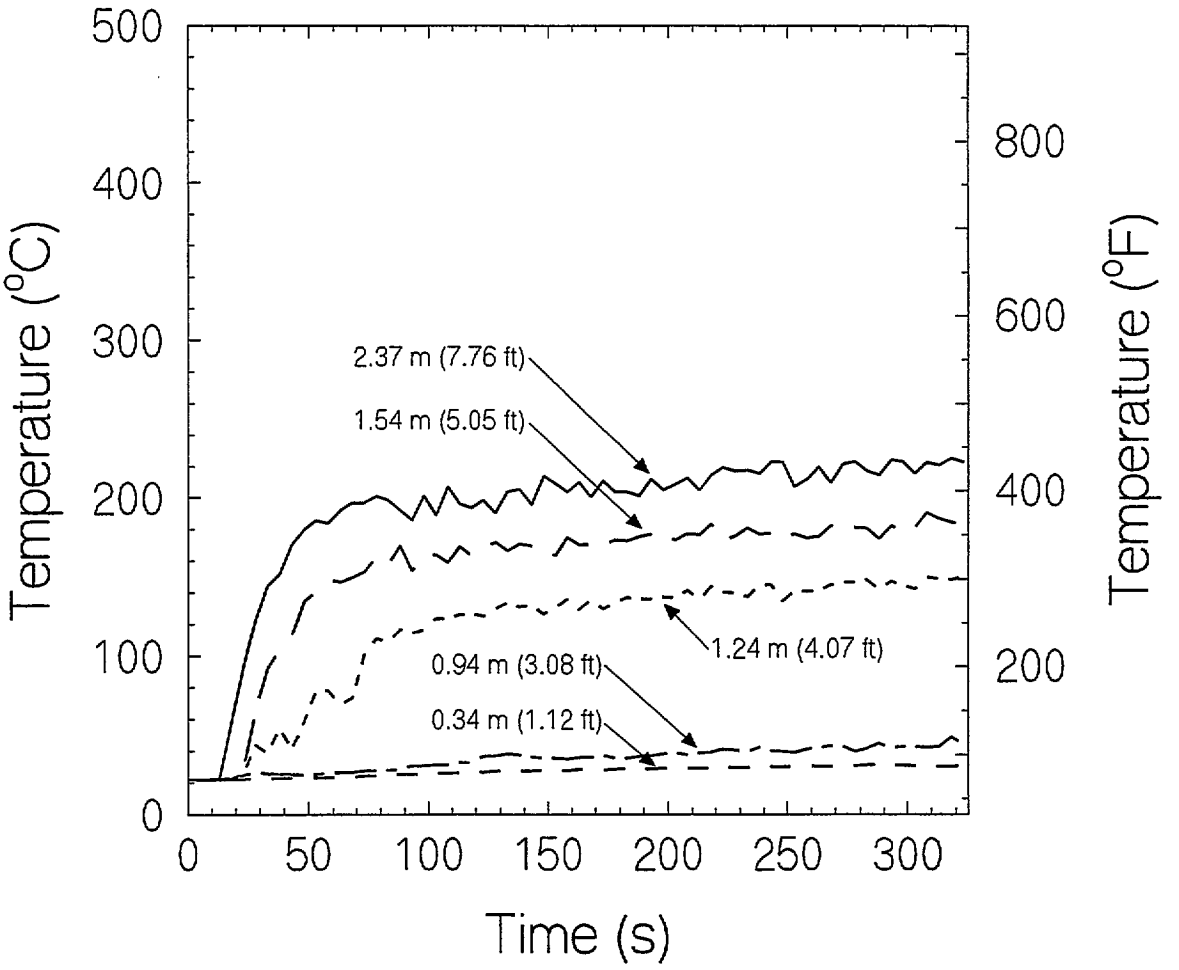

Figure 82. Hall temperatures, low flow experiment (distances above floor)

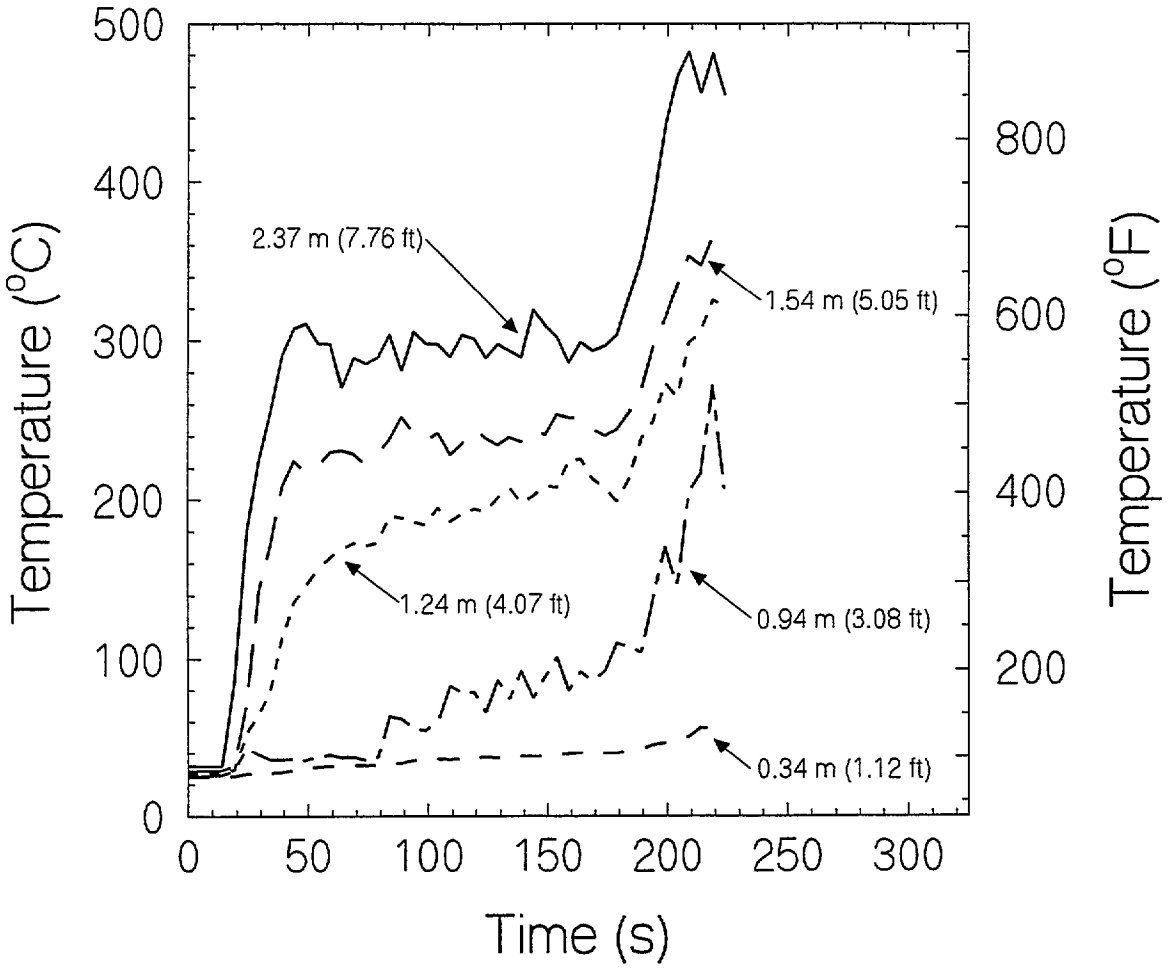

Figure 83. Hall temperatures, high flow experiment (distances above floor)

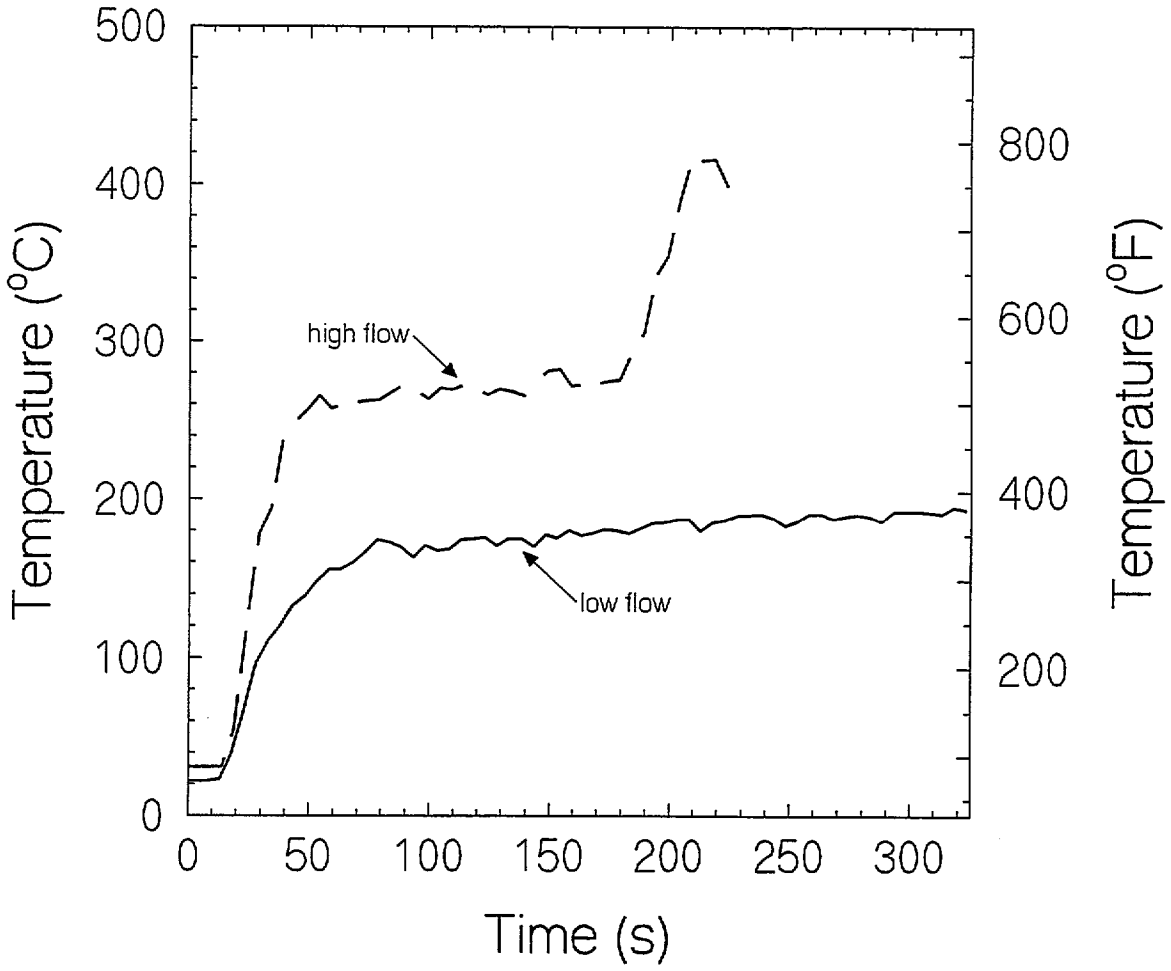

Figure 84. Average hall temperatures, 1.84 m (6.04 ft) to 2.44 m (8.01 ft) above the floor

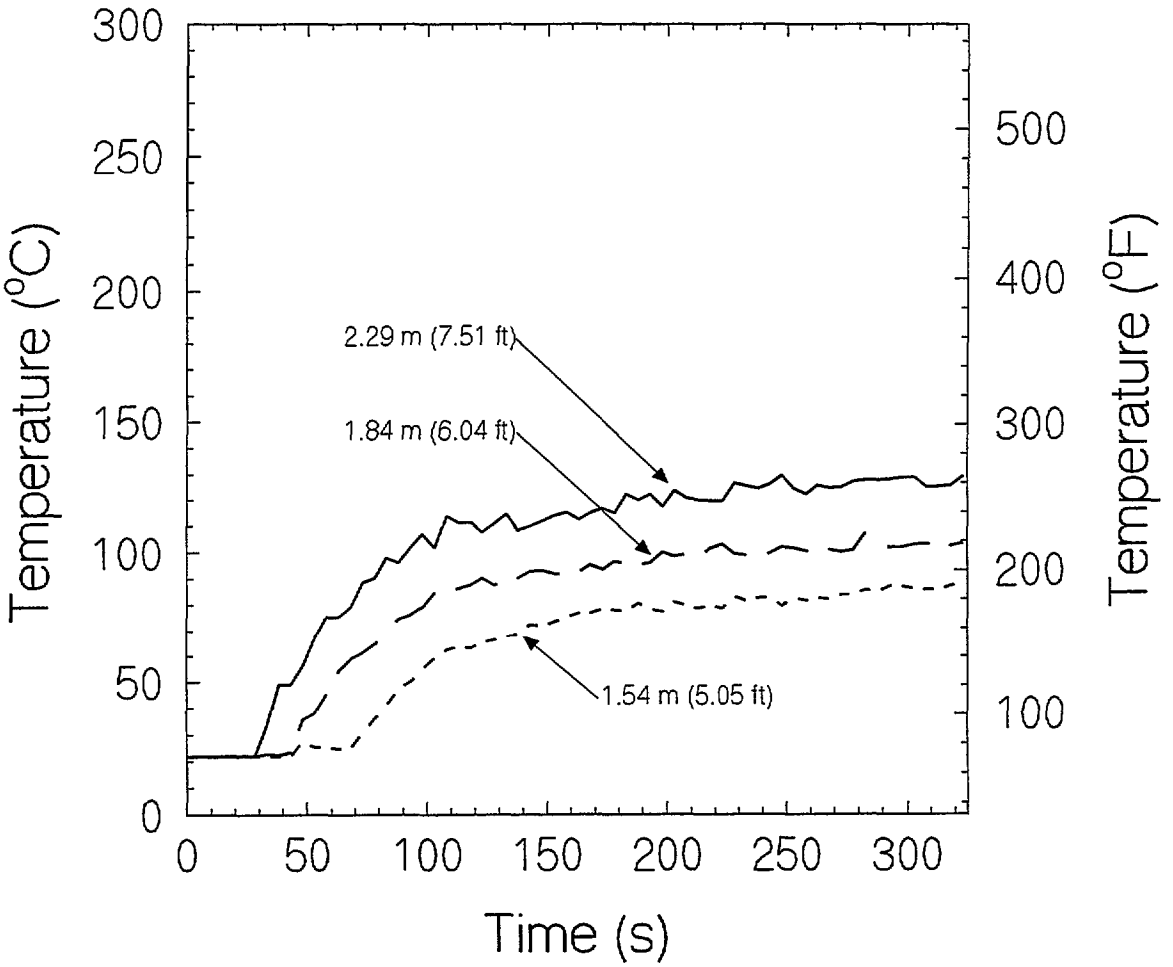

Figure 85. Living room temperatures, low flow experiment (distances above floor)

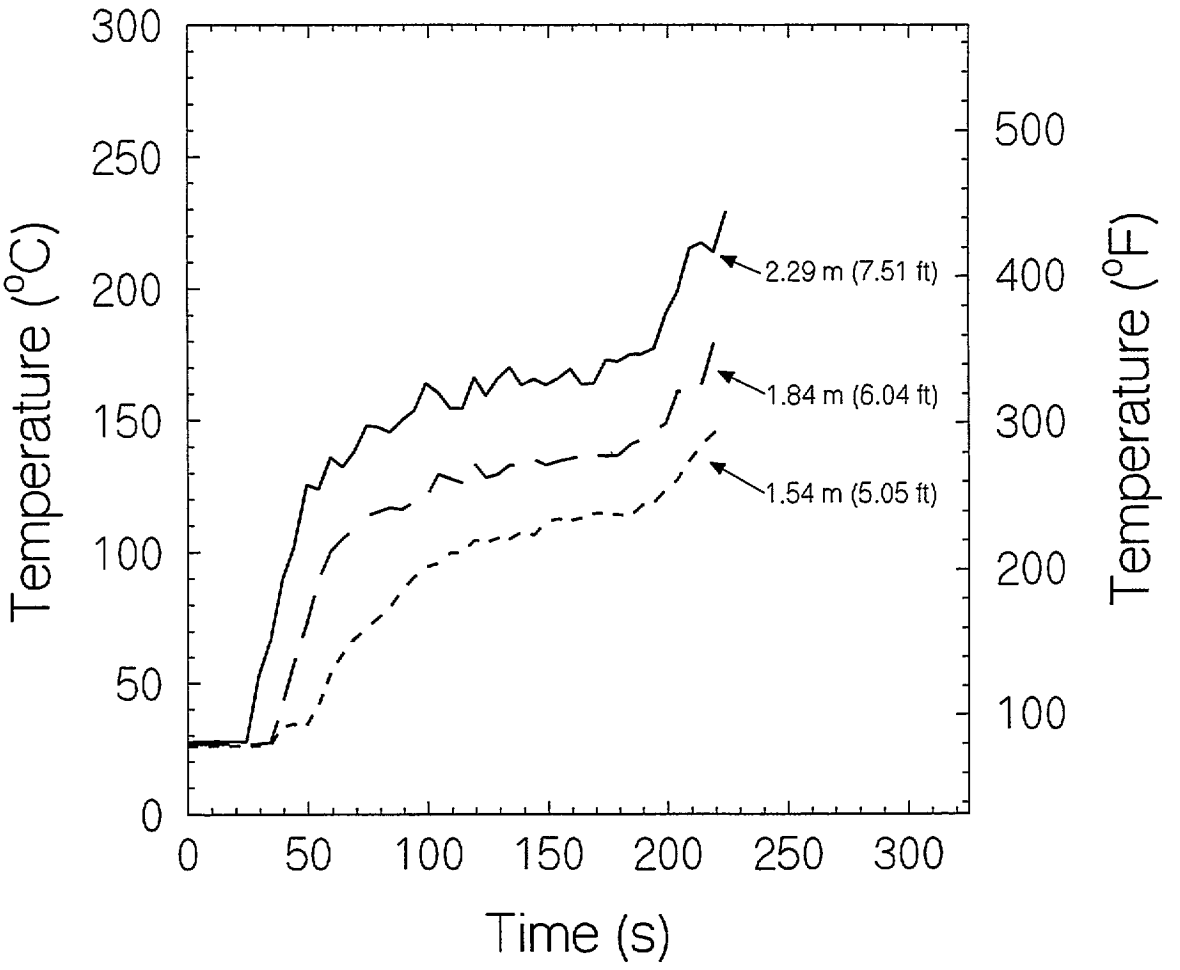

Figure 86. Living room temperatures, high flow experiment (distances above floor)

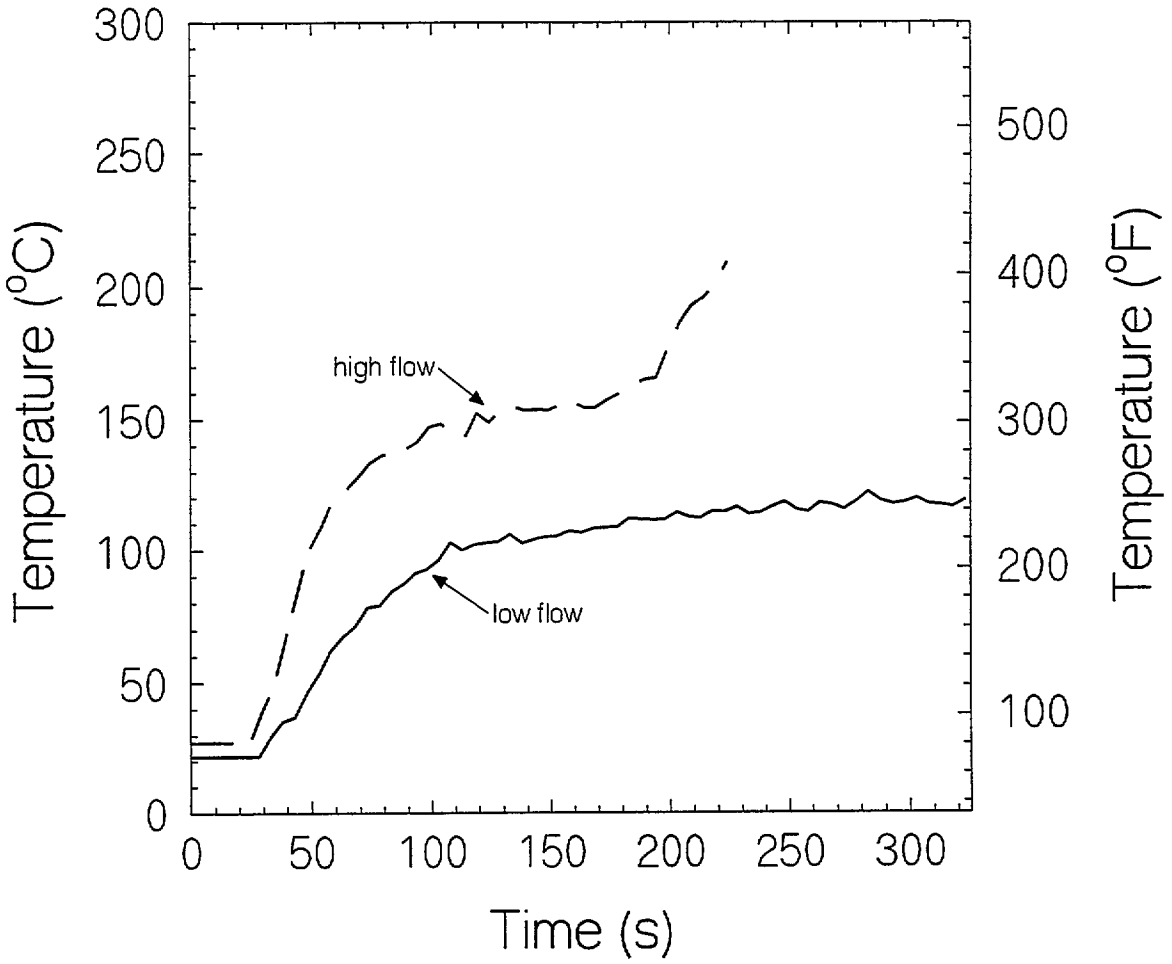

Figure 87. Average living room temperatures, 1.84 m (6.04 ft) to 2.44 m (8.01 ft) above the floor

APPENDIX A. TEMPERATURE MEASUREMENTS (SECTION 2)

Temperature measurements (°C), bunk bed experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
-125	25.6	25.5	25.3	25.3	25.3	25.2	25.2	25.0	24.9	24.8	24.7	24.6	24.6	24.4	24.5	24.4	24.5	24.3
-119	25.6	25.6	25.3	25.3	25.3	25.2	25.1	25.0	24.9	24.9	24.8	24.6	24.6	24.4	24.5	24.4	24.5	24.3
-115	25.6	25.6	25.4	25.3	25.3	25.2	25.2	25.1	25.0	25.0	24.9	24.6	24.6	24.4	24.5	24.4	24.5	24.3
-109	25.5	25.5	25.3	25.4	25.4	25.3	25.2	25.1	25.0	25.0	24.9	24.7	24.6	24.5	24.5	24.4	24.5	24.4
-105	25.3	25.3	25.3	25.4	25.3	25.2	25.2	25.0	25.1	24.9	24.9	24.6	24.6	24.4	24.5	24.3	24.5	24.3
-99	25.3	25.4	25.3	25.3	25.4	25.3	25.2	25.1	25.1	25.0	25.0	24.8	24.7	24.5	24.5	24.4	24.5	24.4
-95	25.3	25.3	25.3	25.3	25.3	25.3	25.1	25.1	25.1	25.0	24.9	24.8	24.7	24.5	24.6	24.4	24.5	24.4
-89	25.4	25.4	25.3	25.3	25.4	25.3	25.2	25.2	25.1	25.1	25.0	24.8	24.7	24.5	24.6	24.5	24.6	24.5
-85	25.4	25.4	25.3	25.4	25.4	25.3	25.3	25.2	25.1	25.1	25.0	24.9	24.7	24.6	24.6	24.5	24.6	24.5
-79	25.3	25.3	25.3	25.3	25.4	25.2	25.2	25.2	25.0	25.0	25.0	24.8	24.7	24.5	24.6	24.4	24.6	24.4
-75	25.2	25.3	25.3	25.3	25.4	25.3	25.2	25.1	25.1	25.0	25.0	24.8	24.7	24.5	24.6	24.4	24.6	24.4
-69	25.2	25.3	25.3	25.3	25.4	25.2	25.2	25.0	25.1	25.0	25.0	24.8	24.7	24.5	24.5	24.4	24.6	24.4
-65	25.2	25.2	25.3	25.3	25.4	25.2	25.1	25.0	25.1	25.0	24.9	24.8	24.7	24.5	24.5	24.4	24.6	24.4
-59	25.2	25.3	25.3	25.3	25.4	25.2	25.1	25.1	25.1	25.0	24.9	24.8	24.7	24.5	24.6	24.4	24.6	24.4
-55	25.4	25.4	25.3	25.4	25.4	25.3	25.2	25.1	25.1	25.1	24.9	24.9	24.7	24.6	24.6	24.6	24.6	24.5
-49	25.5	25.4	25.4	25.4	25.4	25.3	25.2	25.1	25.1	25.0	25.0	24.8	24.7	24.6	24.6	24.5	24.6	24.4
-45	25.4	25.4	25.3	25.4	25.4	25.3	25.2	25.1	25.1	25.0	25.0	24.8	24.8	24.6	24.6	24.5	24.6	24.5
-40	25.5	25.4	25.3	25.4	25.4	25.3	25.2	25.1	25.1	25.1	25.0	25.0	24.9	24.7	24.7	24.5	24.6	24.5
-35	25.6	25.5	25.3	25.4	25.5	25.3	25.2	25.1	25.1	25.1	25.0	24.9	24.8	24.7	24.7	24.5	24.6	24.5
-29	25.4	25.4	25.3	25.4	25.4	25.3	25.2	25.1	25.1	25.1	25.0	24.9	24.8	24.7	24.6	24.5	24.6	24.6
-25	25.4	25.4	25.3	25.4	25.5	25.3	25.3	25.1	25.1	25.1	25.0	24.9	24.8	24.6	24.6	24.5	24.7	24.6
-19	25.4	25.4	25.4	25.5	25.5	25.3	25.3	25.0	25.1	25.1	25.1	24.9	24.7	24.5	24.5	24.5	24.7	24.6
-15	25.4	25.4	25.4	25.5	25.6	25.4	25.3	25.2	25.1	25.1	25.1	25.0	24.8	24.6	24.5	24.5	24.7	24.6
-9	25.4	25.4	25.4	25.5	25.6	25.5	25.3	25.2	25.2	25.1	25.1	24.9	24.8	24.6	24.6	24.6	24.7	24.6
-5	25.4	25.4	25.4	25.5	25.6	25.5	25.3	25.3	25.3	25.2	25.1	25.0	24.9	24.7	24.8	24.7	24.7	24.6
1	25.4	25.4	25.5	25.5	25.6	25.5	25.4	25.3	25.2	25.2	25.1	25.1	25.0	24.9	24.9	24.9	24.8	24.7
5	25.4	25.4	25.4	25.6	25.6	25.5	25.4	25.3	25.2	25.2	25.1	25.1	25.0	25.0	25.0	24.8	24.8	24.7
11	25.5	25.5	25.6	25.7	25.7	25.5	25.3	25.3	25.2	25.2	25.1	25.0	25.0	24.9	24.9	24.8	24.8	24.7
15	26.1	26.1	25.9	25.7	25.7	25.5	25.4	25.4	25.2	25.3	25.2	25.1	25.0	24.9	24.8	24.7	24.8	24.7
21	26.2	26.3	25.9	25.7	25.6	25.5	25.3	25.3	25.3	25.2	25.1	25.0	25.0	24.8	24.8	24.7	24.8	24.7
25	26.2	26.2	25.8	25.6	25.6	25.5	25.3	25.3	25.3	25.2	25.1	25.0	25.0	24.8	24.7	24.7	24.8	24.7
31	26.6	26.4	26.2	25.8	25.7	25.5	25.4	25.3	25.3	25.2	25.2	25.1	25.0	24.9	24.7	24.7	24.8	24.7
35	27.2	27.1	26.5	26.2	25.8	25.6	25.5	25.4	25.3	25.3	25.2	25.2	25.1	25.0	24.8	24.7	24.8	24.7
41	27.1	27.1	26.4	26.2	25.9	25.6	25.4	25.4	25.3	25.2	25.2	25.1	25.1	24.9	24.9	24.6	24.8	24.5
45	27.4	27.4	26.8	26.3	26.1	25.7	25.5	25.5	25.4	25.3	25.3	25.2	25.1	25.0	24.9	24.7	24.8	24.6
51	28.0	28.0	27.2	26.8	26.5	25.9	25.7	25.8	25.5	25.4	25.3	25.4	25.2	25.1	25.0	24.8	24.8	24.7
55	29.2	28.7	27.9	27.4	26.9	26.1	25.9	26.0	25.7	25.4	25.4	25.3	25.3	25.1	25.0	24.8	24.8	24.7
61	30.3	29.9	28.4	28.2	27.2	26.3	26.0	26.2	25.8	25.5	25.5	25.4	25.3	25.2	25.1	24.9	25.0	24.7
65	31.7	31.7	30.0	28.2	27.2	26.7	26.3	26.4	25.9	25.6	25.5	25.5	25.5	25.2	25.1	25.0	25.1	24.8
71	32.5	31.7	30.4	28.9	27.9	27.1	26.8	26.8	26.2	25.8	25.6	25.6	25.7	25.3	25.2	25.1	25.2	24.9
75	34.7	34.4	32.3	30.6	29.0	27.7	27.3	27.7	26.3	26.0	25.8	25.8	25.8	25.4	25.3	25.2	25.3	25.0
81	35.6	35.2	33.0	31.7	29.3	28.4	27.9	28.3	26.4	26.1	26.0	25.9	26.0	25.6	25.3	25.4	25.4	25.1
85	36.2	36.1	33.5	31.6	30.6	29.4	28.8	29.3	26.8	26.2	25.9	26.0	26.1	25.6	25.4	25.5	25.5	25.1
91	38.6	38.8	36.0	32.8	31.0	30.3	29.7	29.5	26.9	26.3	26.1	26.1	26.1	25.7	25.5	25.5	25.6	25.0
95	38.8	38.2	36.0	33.3	32.6	32.0	30.7	30.0	28.3	27.2	26.6	26.2	26.2	26.0	25.7	25.7	25.7	25.1
101	40.4	40.2	37.0	34.7	33.5	32.5	30.8	30.4	28.9	27.8	26.5	26.1	26.2	26.0	25.8	25.7	25.8	25.0
105	40.7	39.9	37.6	35.8	35.0	33.0	31.0	31.1	29.7	28.7	27.0	26.5	26.4	26.2	25.8	25.8	26.0	25.1
111	41.7	41.7	39.2	35.3	34.6	34.1	32.0	31.8	30.3	28.4	26.9	26.7	26.7	26.3	25.9	25.9	26.1	25.2
115	43.0	42.6	39.1	35.8	35.3	34.9	32.9	32.5	31.4	29.1	27.5	26.8	26.8	26.5	26.0	26.1	26.2	25.2
121	43.2	42.8	40.2	36.9	36.9	35.9	33.5	32.8	31.9	29.8	28.1	27.0	26.9	26.6	26.0	26.1	26.3	25.2
125	42.2	42.3	40.9	37.7	37.4	36.5	34.0	33.6	32.8	30.0	27.9	27.1	27.0	26.7	26.0	26.1	26.3	25.3
131	43.3	43.3	41.6	39.2	38.1	37.0	34.5	34.1	33.5	31.3	28.1	27.1	27.3	26.9	26.1	26.2	26.4	25.5
135	46.2	45.6	42.2	39.8	38.9	37.5	35.1	35.2	34.1	32.5	28.8	27.1	27.7	27.1	26.4	26.5	26.7	25.8
141	47.0	46.7	44.4	41.2	39.8	37.4	35.3	36.2	35.1	33.7	29.8	27.5	28.0	27.4	26.9	26.9	27.1	26.3
145	50.6	49.9	46.2	43.0	41.0	39.4	36.3	37.3	36.3	34.7	30.8	27.9	28.5	27.8	27.2	27.2	27.7	26.8
151	52.4	51.1	47.8	43.3	41.6	40.3	37.5	39.7	37.1	35.5	31.9	28.5	29.0	28.1	27.5	27.6	28.3	26.9
155	54.3	55.2	52.4	47.5	44.6	43.1	39.6	40.4	37.9	37.2	34.5	29.9	29.4	28.4	27.7	27.7	28.7	27.4
161	61.7	59.3	52.0	48.0	46.1	45.4	41.0	42.6	40.3	39.2	36.9	30.6	30.1	29.0	28.2	28.5	29.2	27.5
165	72.2	68.9	59.9	49.8	48.5	48.1	44.3	44.8	42.5	40.5	37.4	31.3	31.1	29.7	28.8	29.7	30.5	27.9
171	76.5	74.6	67.9	61.0	58.0	53.6	46.5	48.6	46.2	44.5	41.1	34.4	32.0	30.4	29.7	30.3	31.3	28.8

Temperature measurements (°C), bunk bed experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
175	80.8	83.5	80.8	71.8	69.0	58.1	50.4	53.7	49.2	47.0	41.0	33.2	33.2	31.5	30.3	30.4	31.5	29.2
181	87.4	89.1	84.4	77.3	69.5	64.2	55.2	60.0	54.8	50.1	45.5	35.2	34.7	32.8	31.0	30.7	32.0	30.0
185	97.6	98.6	88.4	80.3	74.7	72.6	62.9	68.3	58.9	53.2	48.9	37.7	36.0	33.4	32.0	31.4	33.0	30.6
191	99.7	101.5	94.5	90.1	84.2	74.9	69.2	76.1	64.7	58.9	54.0	41.3	37.5	34.6	32.6	32.1	34.8	31.8
195	113.0	113.7	105.7	104.0	97.9	82.5	75.8	85.0	76.1	65.9	59.6	48.7	43.3	38.6	35.5	35.3	36.7	33.1
201	198.8	194.3	172.3	157.2	145.7	112.2	99.1	107.3	100.7	98.0	76.4	63.9	53.9	47.0	42.1	41.7	43.2	38.1
205	288.5	292.6	253.3	234.1	218.8	172.6	151.6	177.9	163.7	156.9	112.5	85.6	77.1	58.5	48.7	46.8	48.5	40.4
211	459.4	460.7	410.7	370.6	333.0	262.1	211.3	243.7	227.2	224.1	176.8	138.8	101.7	76.6	63.8	58.5	58.1	47.3
215	502.6	502.7	451.6	426.9	392.5	335.3	270.9	305.4	289.6	290.7	242.4	188.0	140.6	95.8	71.2	62.2	64.7	52.2
221	545.2	550.0	514.6	507.1	500.0	428.2	349.7	346.7	333.4	357.0	273.0	220.0	158.6	114.6	87.6	78.1	74.9	62.2
225	683.9	676.2	612.7	578.2	532.9	448.7	388.1	419.5	407.4	417.7	380.9	297.7	208.3	154.9	117.0	103.4	101.2	86.0
231	673.3	682.3	671.7	679.6	696.1	643.0	580.8	594.5	548.2	521.6	472.2	434.4	285.9	219.6	160.5	131.7	127.2	100.0
235	581.4	601.3	615.2	622.3	633.6	629.7	606.6	635.6	593.5	560.6	534.3	456.0	350.1	284.2	205.2	162.9	158.5	120.1
241	659.9	661.6	646.5	662.7	669.1	677.7	643.8	634.5	593.7	578.9	557.9	507.3	436.9	341.2	261.3	191.5	181.3	136.1
245	647.3	660.4	659.9	671.0	678.5	692.7	681.9	699.9	605.0	560.1	525.8	473.7	439.2	401.1	329.8	246.5	223.0	162.4
251	762.0	765.0	790.0	830.0	864.0	883.0	822.0	810.0	733.0	693.4	677.9	664.9	595.3	668.5	399.6	313.5	277.1	209.5
255	809.0	843.0	827.0	853.0	854.0	877.0	838.0	837.0	808.0	743.0	675.9	632.1	602.1	534.8	471.3	400.7	343.7	278.4
261	801.0	802.0	805.0	802.0	804.0	804.0	807.0	805.0	805.0	818.0	846.0	841.0	828.0	794.0	684.6	593.2	481.5	414.6
265	710.0	701.0	703.0	693.4	709.0	696.5	688.0	665.5	641.4	616.2	612.0	598.1	579.3	542.1	527.4	492.0	482.7	442.0
271	630.1	617.6	620.4	611.1	626.3	616.6	606.7	583.8	563.4	546.5	539.0	529.0	521.1	512.4	507.6	505.3	482.8	444.7
275	583.9	575.2	577.1	570.9	580.0	577.4	570.7	559.6	548.5	532.1	523.0	505.6	497.6	491.1	481.2	466.1	450.4	428.9

Temperature measurements (°C), bunk bed experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
-125	25.5	25.5	25.5	25.5	25.4	25.4	25.2	25.1	24.9	24.8	24.7	24.7	24.6	24.6	24.6	24.6	24.5	24.5
-119	25.5	25.5	25.4	25.5	25.4	25.4	25.2	25.1	25.0	24.8	24.6	24.7	24.6	24.6	24.6	24.7	24.6	24.6
-115	25.6	25.6	25.6	25.6	25.4	25.4	25.2	25.1	25.0	24.8	24.7	24.7	24.6	24.6	24.6	24.7	24.6	24.6
-109	25.8	25.9	25.7	25.5	25.4	25.4	25.2	25.1	25.0	24.8	24.6	24.7	24.6	24.6	24.6	24.7	24.6	24.6
-105	26.1	26.0	25.7	25.4	25.4	25.2	25.2	25.0	25.0	24.7	24.6	24.7	24.5	24.7	24.6	24.8	24.6	24.4
-99	26.1	26.2	25.7	25.4	25.3	25.3	25.2	25.0	25.0	24.9	24.7	24.8	24.7	24.7	24.7	24.8	24.6	24.3
-95	26.0	26.1	25.7	25.5	25.3	25.3	25.2	25.1	25.0	24.9	24.8	24.8	24.7	24.6	24.7	24.8	24.5	24.3
-89	25.9	26.0	25.9	25.4	25.4	25.2	25.3	25.1	25.1	24.9	24.8	24.9	24.7	24.7	24.6	24.8	24.4	24.4
-85	26.0	25.9	25.8	25.6	25.5	25.2	25.2	25.0	25.0	24.8	24.7	24.8	24.7	24.6	24.6	24.7	24.4	24.3
-79	25.7	25.8	25.6	25.7	25.5	25.5	25.1	25.0	24.9	24.8	24.8	24.9	24.9	24.7	24.7	24.7	24.6	24.5
-75	25.7	25.8	25.6	25.6	25.5	25.5	25.2	25.1	25.0	24.9	24.8	24.9	24.9	24.7	24.7	24.7	24.5	24.5
-69	25.7	25.7	25.7	25.6	25.5	25.4	25.4	25.1	25.1	24.9	24.8	25.0	24.8	24.8	24.8	24.7	24.4	24.5
-65	25.7	25.7	25.7	25.6	25.5	25.4	25.3	25.1	25.0	24.9	24.9	24.9	24.8	24.7	24.6	24.6	24.4	24.4
-59	25.7	25.6	25.7	25.6	25.5	25.4	25.3	25.1	25.0	24.9	24.9	24.9	24.9	24.8	24.6	24.6	24.4	24.3
-55	25.6	25.7	25.7	25.6	25.6	25.3	25.3	25.1	25.0	24.9	24.9	24.9	24.8	24.7	24.6	24.6	24.5	24.4
-49	25.6	25.6	25.6	25.5	25.4	25.3	25.3	25.1	25.0	24.9	24.8	24.9	24.8	24.7	24.6	24.7	24.6	24.4
-45	25.6	25.7	25.5	25.5	25.3	25.3	25.2	25.1	25.0	25.0	24.8	24.8	24.8	24.7	24.8	24.7	24.7	24.3
-40	25.7	25.7	25.6	25.5	25.3	25.3	25.2	25.1	25.1	24.9	24.7	24.9	24.8	24.7	24.7	24.7	24.6	24.3
-35	25.7	25.6	25.5	25.4	25.3	25.3	25.1	25.1	25.1	24.9	24.8	24.8	24.8	24.7	24.7	24.6	24.4	24.3
-29	25.7	25.7	25.5	25.4	25.4	25.2	25.1	25.1	24.9	24.8	24.7	24.8	24.6	24.6	24.5	24.5	24.3	24.3
-25	25.6	25.7	25.5	25.4	25.3	25.2	25.2	25.1	25.0	24.8	24.7	24.8	24.6	24.6	24.5	24.4	24.3	24.3
-19	25.7	25.7	25.6	25.5	25.4	25.2	25.2	25.1	25.0	24.8	24.8	24.8	24.6	24.6	24.5	24.5	24.3	24.4
-15	25.7	25.7	25.6	25.4	25.4	25.3	25.1	25.1	24.9	24.8	24.8	24.8	24.7	24.6	24.5	24.5	24.4	24.4
-9	25.8	25.7	25.7	25.5	25.4	25.2	25.2	25.0	25.0	24.8	24.7	24.8	24.6	24.5	24.4	24.5	24.4	24.4
-5	25.7	25.8	25.7	25.6	25.4	25.3	25.0	25.0	24.9	24.8	24.7	24.7	24.6	24.5	24.5	24.4	24.4	24.3
1	25.8	25.8	25.6	25.6	25.5	25.3	25.1	24.9	24.9	24.8	24.7	24.7	24.7	24.7	24.6	24.5	24.4	24.3
5	25.9	25.8	25.6	25.5	25.5	25.4	25.1	25.0	24.8	24.7	24.6	24.8	24.7	24.7	24.6	24.6	24.4	24.3
11	25.8	25.8	25.7	25.6	25.4	25.4	25.2	24.9	24.8	24.8	24.7	24.7	24.7	24.7	24.5	24.6	24.4	24.4
15	25.8	25.9	25.6	25.6	25.5	25.4	25.2	25.1	24.9	24.8	24.7	24.8	24.7	24.6	24.6	24.5	24.5	24.4
21	25.7	25.7	25.6	25.5	25.5	25.4	25.2	25.2	25.1	24.9	25.0	24.9	24.9	24.8	24.7	24.7	24.5	24.5
25	25.7	25.8	25.8	25.7	25.5	25.4	25.2	25.2	25.1	25.1	25.0	25.0	25.0	24.9	24.8	24.7	24.5	24.5
31	25.7	25.8	25.8	25.7	25.5	25.3	25.3	25.2	25.1	25.0	25.0	25.0	24.9	24.9	24.9	24.9	24.6	24.5
35	25.8	25.8	25.9	25.7	25.5	25.3	25.2	25.2	25.1	24.9	24.9	24.9	24.8	24.8	24.8	24.7	24.5	24.4
41	25.8	26.0	26.0	25.7	25.5	25.2	25.1	25.1	25.0	24.8	24.8	24.9	24.7	24.7	24.6	24.7	24.4	24.4
45	26.1	26.1	26.0	25.7	25.6	25.2	25.1	25.0	25.0	24.8	24.7	24.9	24.7	24.7	24.6	24.6	24.4	24.3
51	26.2	26.1	26.0	25.8	25.6	25.4	25.1	25.0	25.0	24.8	24.7	24.9	24.8	24.8	24.6	24.6	24.4	24.4
55	26.2	26.2	26.1	25.8	25.7	25.5	25.4	25.1	25.1	24.8	24.7	25.0	24.8	24.9	24.7	24.8	24.5	24.5
61	26.2	26.3	26.2	25.8	25.7	25.5	25.4	25.3	25.2	25.1	25.0	25.0	24.9	24.9	24.9	24.8	24.7	24.6
65	26.1	26.1	26.0	25.8	25.7	25.5	25.4	25.3	25.2	25.1	25.1	25.1	25.0	25.0	24.9	25.0	24.8	24.6
71	26.0	26.0	25.9	25.8	25.8	25.5	25.4	25.3	25.2	25.1	25.1	25.1	25.1	25.0	25.0	25.0	24.8	24.7
75	25.8	25.8	25.8	25.8	25.7	25.4	25.3	25.3	25.1	25.1	25.0	25.1	25.1	25.0	25.0	25.1	24.9	24.7
81	26.0	25.9	25.8	25.8	25.6	25.5	25.2	25.3	25.1	25.1	25.0	25.0	25.0	24.9	25.0	25.1	24.9	24.7
85	25.9	25.8	25.8	25.7	25.5	25.4	25.3	25.3	25.1	25.0	24.9	25.0	25.0	24.9	24.9	25.0	24.9	24.8
91	26.2	26.0	25.8	25.7	25.5	25.4	25.2	25.2	25.1	25.1	25.0	24.9	25.0	24.9	24.8	24.9	24.7	24.6
95	26.1	26.1	25.9	25.7	25.5	25.3	25.2	25.2	25.1	25.1	25.0	24.9	24.9	24.8	24.7	24.7	24.5	24.4
101	26.1	26.0	25.8	25.7	25.6	25.4	25.3	25.2	25.2	25.1	24.9	24.8	24.7	24.7	24.6	24.7	24.5	24.4
105	26.0	25.9	25.8	25.7	25.7	25.5	25.4	25.2	25.2	25.0	24.9	24.8	24.7	24.7	24.6	24.7	24.4	24.3
111	26.0	26.0	25.8	25.7	25.7	25.5	25.4	25.2	25.1	25.1	24.9	24.9	24.8	24.7	24.7	24.7	24.4	24.2
115	26.0	26.0	25.9	25.8	25.7	25.6	25.4	25.2	25.1	25.1	25.0	25.0	24.9	24.7	24.7	24.7	24.3	24.3
121	25.8	25.9	25.8	25.8	25.7	25.7	25.3	25.3	25.2	25.1	25.0	25.0	24.9	24.8	24.8	24.7	24.4	24.3
125	25.8	25.8	25.8	25.7	25.6	25.5	25.3	25.2	25.1	25.1	25.1	25.1	25.0	24.8	24.8	24.7	24.7	24.5
131	25.9	26.0	25.8	25.7	25.6	25.4	25.2	25.2	25.1	25.1	25.0	25.0	24.8	24.7	24.7	24.7	24.6	24.5
135	25.9	25.9	25.8	25.7	25.7	25.4	25.3	25.2	25.1	25.0	24.9	25.0	24.8	24.7	24.7	24.8	24.6	24.5
141	25.8	26.1	26.1	25.8	25.7	25.5	25.3	25.2	25.1	25.0	24.9	24.9	24.8	24.7	24.8	24.8	24.7	24.6
145	26.2	26.2	26.1	25.8	25.8	25.5	25.3	25.2	25.2	25.1	25.0	24.9	24.8	24.7	24.8	24.9	24.7	24.6
151	26.1	26.1	25.9	25.8	25.7	25.5	25.4	25.3	25.2	25.1	25.0	25.0	24.9	24.7	24.8	24.8	24.7	24.5
155	26.2	26.2	26.1	25.8	25.7	25.6	25.5	25.3	25.3	25.0	24.9	25.1	24.9	24.8	24.8	24.8	24.6	24.4
161	26.2	26.1	26.0	25.9	25.8	25.7	25.6	25.4	25.4	25.0	24.8	25.0	24.9	24.8	24.7	24.8	24.5	24.5
165	26.3	26.3	26.3	26.1	26.1	25.9	25.7	25.6	25.5	25.1	24.9	25.0	25.0	24.8	24.8	24.7	24.5	24.4
171	27.3	27.3	27.4	27.0	26.5	26.1	25.8	25.7	25.5	25.2	25.0	25.0	25.0	24.8	24.8	24.7	24.6	24.4
175	27.9	27.9	26.9	26.6	26.3	26.0	25.7	25.5	25.4	25.2	25.0	24.9	25.0	24.8	24.9	24.7	24.6	24.5
181	27.9	27.9	27.2	26.6	26.1	25.8	25.6	25.4	25.3	25.1	25.0	25.0	25.0	24.8	24.8	24.8	24.6	24.5
185	29.3	29.1	28.3	27.1	26.5	25.8	25.5	25.4	25.3	25.1	25.0	25.0	25.0	24.9	24.8	24.8	24.6	24.5

Temperature measurements (°C), bunk bed experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
191	29.7	29.4	28.5	28.0	26.9	26.2	25.6	25.4	25.0	25.2	25.2	25.0	25.0	24.9	24.8	24.8	24.7	24.5
195	32.7	31.8	29.9	28.4	27.0	26.2	25.7	25.5	25.3	25.2	25.1	25.1	24.9	24.9	24.7	24.7	24.6	24.6
201	32.6	32.4	31.2	29.5	27.8	26.4	25.9	25.7	25.4	25.3	25.2	25.2	24.9	24.8	24.7	24.6	24.5	24.5
205	40.7	39.7	37.5	33.6	31.5	27.9	26.2	26.2	25.8	25.3	25.3	25.3	25.1	24.9	24.7	24.6	24.4	24.4
211	53.1	50.3	46.7	41.6	35.6	28.9	26.9	26.8	26.4	25.6	25.3	25.5	25.3	25.1	24.9	24.6	24.5	24.5
215	75.6	68.2	61.6	51.9	37.8	30.6	29.8	29.5	29.4	28.1	26.7	25.6	25.5	25.3	25.0	24.8	24.7	24.5
221	90.4	88.8	82.0	73.2	64.0	50.4	41.6	38.9	36.3	33.1	29.8	26.6	25.9	25.8	25.4	25.2	24.9	24.7
225	99.6	98.6	89.4	84.2	79.5	73.3	61.1	50.9	32.7	30.2	28.4	27.4	26.8	26.4	25.7	25.6	25.4	24.9
231	132.8	128.4	125.4	116.1	107.3	87.4	75.5	65.3	34.6	29.5	28.0	27.0	26.6	26.2	25.8	25.6	25.4	25.2
235	151.0	149.9	141.4	129.5	118.4	104.9	92.5	82.9	53.7	43.0	31.8	29.2	27.3	26.2	26.1	25.8	25.4	25.2
241	160.9	159.9	150.1	144.9	136.4	130.5	114.7	91.2	68.9	50.4	39.1	31.1	27.9	27.0	26.4	26.4	25.8	25.5
245	183.5	180.4	178.6	175.2	168.0	153.2	130.2	111.9	76.7	62.2	50.7	42.5	29.6	27.8	27.3	27.4	26.5	26.1
251	180.3	181.9	176.0	169.9	161.0	156.1	141.8	125.4	89.3	80.1	60.6	41.3	31.2	28.6	27.9	28.1	27.0	26.5
255	194.4	197.3	195.1	188.9	179.4	166.8	150.2	129.3	106.2	90.2	70.1	52.4	39.2	32.6	28.8	29.2	27.7	27.2
261	205.4	209.5	213.4	205.7	192.3	168.0	159.1	140.9	122.7	99.6	86.4	62.2	41.4	34.5	29.5	29.7	28.4	27.4
265	195.6	197.6	197.8	197.0	190.7	174.3	160.7	142.0	118.8	101.8	95.4	72.4	48.2	36.6	32.0	30.8	29.0	28.1
271	194.1	196.0	194.7	185.8	181.1	169.1	156.2	139.6	127.3	113.8	102.8	79.2	52.5	38.2	34.5	31.1	29.1	27.9
275	183.6	187.1	186.8	183.8	179.0	163.5	147.4	136.1	124.9	113.9	103.8	80.4	56.1	43.0	35.4	32.1	29.9	28.7

Temperature measurements (°C), bunk bed experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
-125	25.0	24.9	24.9	24.9	24.8	24.8	24.8	24.8	24.8	24.8	24.9	24.8	24.9	24.7	24.5	24.4	24.1	24.0
-119	25.0	24.9	25.0	24.9	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.7	24.6	24.5	24.1	23.8
-115	25.0	25.0	25.0	25.0	24.8	24.8	24.8	24.8	24.9	24.9	24.8	24.8	24.6	24.6	24.6	24.3	24.1	23.9
-109	25.0	25.0	25.0	25.0	24.8	24.9	24.8	24.9	24.8	24.8	24.8	24.7	24.7	24.6	24.4	24.4	24.0	23.9
-105	25.0	25.0	25.0	25.0	24.8	24.9	24.8	24.8	24.8	24.8	24.7	24.7	24.6	24.6	24.5	24.4	24.1	23.8
-99	25.1	25.0	25.1	25.0	24.9	24.9	24.8	24.8	24.9	24.7	24.7	24.6	24.7	24.6	24.4	24.3	24.2	23.8
-95	25.1	25.0	25.1	25.1	24.9	24.9	24.8	24.8	24.9	24.7	24.7	24.6	24.7	24.6	24.4	24.3	24.1	23.9
-89	25.2	25.1	25.2	25.1	24.9	24.9	24.9	24.8	24.9	24.7	24.7	24.6	24.7	24.6	24.4	24.3	24.1	23.8
-85	25.2	25.1	25.1	25.1	24.9	24.9	24.8	24.8	24.8	24.7	24.7	24.6	24.6	24.6	24.4	24.2	24.0	23.8
-79	25.2	25.1	25.2	25.1	25.0	25.0	24.9	24.8	24.8	24.8	24.7	24.6	24.5	24.6	24.5	24.3	24.1	23.8
-75	25.3	25.1	25.2	25.2	25.0	25.1	24.9	24.8	24.9	24.8	24.7	24.6	24.6	24.6	24.4	24.3	24.0	23.9
-69	25.3	25.2	25.2	25.2	25.0	25.1	24.9	24.9	24.8	24.8	24.7	24.6	24.6	24.6	24.4	24.3	24.0	23.9
-65	25.3	25.2	25.2	25.3	25.0	25.1	24.9	24.9	24.9	24.8	24.7	24.6	24.6	24.6	24.4	24.3	24.0	23.9
-59	25.3	25.2	25.3	25.2	25.0	25.0	25.0	25.0	24.9	24.9	24.7	24.6	24.6	24.6	24.5	24.3	24.1	24.0
-55	25.3	25.2	25.3	25.2	25.0	25.0	24.9	25.0	25.0	24.9	24.7	24.6	24.6	24.5	24.5	24.3	24.2	24.0
-49	25.2	25.1	25.2	25.2	25.0	25.0	24.8	25.0	25.0	24.9	24.8	24.7	24.6	24.5	24.4	24.3	24.2	23.9
-45	25.1	25.0	25.2	25.1	25.0	25.0	24.9	24.9	25.0	25.0	24.8	24.7	24.6	24.5	24.4	24.3	24.2	23.9
-40	25.2	25.1	25.2	25.2	25.1	25.0	24.9	24.9	25.0	24.9	24.8	24.7	24.6	24.5	24.4	24.3	24.1	23.9
-35	25.2	25.1	25.2	25.2	25.0	25.0	24.9	24.9	25.0	24.9	24.8	24.6	24.5	24.5	24.4	24.3	24.0	23.9
-29	25.2	25.2	25.1	25.1	24.9	25.0	24.9	24.9	24.9	24.9	24.8	24.6	24.5	24.5	24.4	24.3	24.0	23.9
-25	25.3	25.2	25.1	25.1	24.9	25.0	24.9	25.0	24.9	25.0	24.8	24.7	24.5	24.5	24.4	24.3	24.0	23.9
-19	25.3	25.3	25.3	25.3	25.0	25.0	24.9	25.0	24.9	24.9	24.8	24.7	24.6	24.6	24.5	24.3	24.1	23.9
-15	25.3	25.3	25.3	25.3	25.1	25.1	24.9	25.0	25.0	25.0	24.8	24.7	24.6	24.6	24.5	24.5	24.0	23.9
-9	25.3	25.2	25.3	25.2	25.0	25.0	24.9	25.0	25.0	25.0	24.9	24.8	24.6	24.5	24.5	24.4	24.0	23.9
-5	25.3	25.2	25.3	25.3	25.1	25.0	24.9	25.0	25.0	25.0	24.8	24.7	24.6	24.5	24.5	24.4	24.0	23.9
1	25.3	25.2	25.3	25.2	25.1	25.0	24.9	25.0	25.0	24.9	24.8	24.7	24.6	24.6	24.5	24.4	24.0	23.8
5	25.4	25.2	25.2	25.2	25.0	25.0	24.9	25.0	25.0	24.9	24.8	24.7	24.7	24.6	24.5	24.3	24.1	23.9
11	25.3	25.2	25.2	25.2	25.0	25.0	24.9	24.9	24.8	24.9	24.8	24.6	24.7	24.7	24.4	24.4	24.2	24.0
15	25.2	25.1	25.0	25.1	25.0	24.9	24.9	24.8	24.8	24.8	24.8	24.7	24.7	24.7	24.6	24.4	24.1	24.0
21	25.0	25.0	25.0	25.0	24.9	25.0	24.9	24.9	24.8	24.8	24.7	24.7	24.7	24.7	24.5	24.5	24.2	24.0
25	25.2	25.1	25.1	25.0	25.0	25.0	24.9	24.8	24.8	24.7	24.7	24.7	24.7	24.7	24.4	24.5	24.4	24.0
31	25.2	25.1	25.1	25.0	25.0	25.0	24.9	24.9	24.8	24.7	24.7	24.7	24.6	24.6	24.4	24.4	24.3	23.9
35	25.2	25.0	25.1	25.0	24.9	24.9	24.9	24.9	24.9	24.8	24.7	24.7	24.6	24.6	24.5	24.3	24.1	23.8
41	25.2	25.0	25.0	25.1	24.9	25.0	24.9	24.9	24.8	24.8	24.7	24.7	24.6	24.6	24.4	24.3	24.1	23.9
45	25.2	25.1	25.0	25.1	24.9	25.0	24.9	24.9	24.8	24.8	24.8	24.7	24.6	24.6	24.4	24.4	24.1	23.9
51	25.3	25.1	25.1	25.1	24.9	25.0	24.9	24.9	24.9	24.8	24.8	24.8	24.7	24.7	24.5	24.4	24.2	23.8
55	25.3	25.2	25.2	25.1	24.9	25.0	24.8	24.9	24.9	24.8	24.7	24.8	24.7	24.7	24.6	24.4	24.2	23.9
61	25.4	25.3	25.4	25.4	25.1	25.1	24.8	24.9	24.9	24.8	24.8	24.8	24.7	24.7	24.6	24.4	24.1	23.9
65	25.5	25.5	25.6	25.6	25.3	25.2	24.9	25.0	24.9	24.9	24.9	24.8	24.7	24.7	24.5	24.4	24.2	23.9
71	25.7	25.6	25.8	25.8	25.7	25.4	25.2	25.0	25.0	24.9	24.9	24.7	24.6	24.6	24.5	24.4	24.3	24.0
75	25.8	25.7	25.8	25.8	25.7	25.6	25.4	25.3	25.1	25.0	24.9	24.7	24.7	24.7	24.6	24.3	24.2	23.9
81	26.0	25.9	26.0	25.7	25.5	25.4	25.4	25.3	25.1	25.0	24.9	24.8	24.7	24.7	24.5	24.3	24.2	23.9
85	26.9	26.8	27.1	26.6	25.8	25.5	25.3	25.3	25.1	24.9	24.9	24.8	24.8	24.7	24.4	24.2	24.2	24.0
91	27.9	28.1	28.5	27.3	26.5	25.9	25.4	25.2	25.1	25.0	24.9	24.8	24.8	24.7	24.4	24.3	24.2	23.9
95	29.3	29.3	29.3	28.6	27.7	26.8	25.4	25.2	25.1	25.0	25.0	24.9	24.7	24.6	24.4	24.2	24.1	23.9
101	29.7	29.9	30.1	29.4	28.7	27.4	26.1	25.3	25.2	25.2	25.1	25.0	24.7	24.7	24.5	24.3	24.1	23.9
105	30.5	31.0	30.8	29.9	29.1	27.7	26.2	25.6	25.5	25.5	25.3	25.1	24.9	24.8	24.5	24.3	24.1	23.9
111	30.8	31.4	31.6	30.4	29.5	28.1	26.3	26.4	26.0	25.7	25.3	24.8	24.9	24.8	24.5	24.3	24.0	23.9
115	30.8	31.2	31.7	30.2	29.0	27.4	27.1	27.1	26.1	25.8	25.0	24.8	24.9	24.6	24.5	24.2	24.1	24.1
121	32.7	33.0	33.7	33.0	32.0	29.9	28.1	27.7	26.4	25.7	25.0	24.9	25.0	24.7	24.3	24.2	24.1	24.0
125	33.3	33.8	34.6	32.5	31.3	29.8	28.9	28.6	27.1	25.9	25.0	24.8	24.8	24.7	24.3	24.1	24.1	24.0
131	34.4	35.1	35.1	33.8	32.2	30.0	29.1	28.5	27.4	26.1	25.2	24.9	24.8	24.7	24.3	24.2	24.1	23.9
135	34.4	35.2	35.1	33.8	32.7	31.1	30.1	29.5	28.3	27.1	25.4	25.0	24.9	24.9	24.4	24.2	24.1	24.0
141	35.2	35.6	36.2	34.3	33.1	31.6	30.8	30.8	28.7	27.0	25.5	24.9	24.9	24.8	24.4	24.2	24.1	23.9
145	35.7	36.4	36.9	35.7	34.0	33.1	32.4	31.6	30.0	27.5	25.8	25.0	25.0	24.8	24.5	24.3	24.2	24.0
151	36.3	37.0	37.6	36.3	34.4	32.8	32.4	31.9	30.4	27.8	25.7	25.0	24.9	24.8	24.5	24.2	24.0	24.0
155	38.0	38.6	39.2	37.3	35.1	33.4	32.7	32.5	31.5	29.9	25.4	25.6	25.1	24.7	24.6	24.3	24.1	23.9
161	39.6	40.5	40.6	38.2	36.3	34.0	33.2	33.6	31.7	29.7	25.9	25.6	25.1	24.9	24.6	24.4	24.0	23.9
165	42.0	43.1	43.8	42.0	40.2	37.2	35.5	35.1	32.7	31.1	25.6	25.7	25.5	25.0	24.8	24.5	24.1	24.0
171	46.6	47.4	48.3	45.7	42.6	37.9	35.7	36.2	34.6	33.7	26.8	26.5	26.1	25.0	24.8	24.5	24.1	23.9
175	49.2	50.1	51.6	49.0	44.8	40.4	36.9	36.8	35.9	35.6	28.2	26.6	26.5	25.5	25.0	24.6	24.3	24.0
181	53.2	54.8	55.4	51.0	47.9	44.3	41.8	41.0	38.6	32.3	28.5	26.8	26.4	25.5	24.9	24.6	24.4	24.1
185	59.0	60.5	60.6	57.1	52.5	47.4	43.9	44.2	41.6	39.0	29.0	27.9	26.8	25.5	24.9	24.6	24.4	24.0

Temperature measurements (°C), bunk bed experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
191	64.8	67.5	69.1	66.1	61.0	48.7	46.3	47.5	44.4	42.3	32.7	28.5	27.7	25.6	24.7	24.6	24.3	24.0
195	74.0	74.5	73.3	67.5	63.2	56.7	53.9	54.7	50.1	49.4	36.9	30.6	28.8	27.7	25.2	24.7	24.4	24.1
201	93.2	96.6	99.2	93.0	87.3	73.2	65.2	61.3	55.5	55.6	44.8	29.4	28.9	28.6	26.1	24.6	24.5	24.2
205	166.3	169.5	173.9	158.0	146.2	115.3	102.1	94.4	83.0	80.5	65.7	49.1	41.4	34.1	27.9	25.1	24.6	24.4
211	211.8	216.7	207.9	180.0	169.8	147.1	135.9	138.8	121.6	120.8	95.2	46.6	44.4	37.4	29.3	25.8	25.2	24.6
215	266.5	277.1	290.5	275.3	261.9	229.6	210.4	193.5	170.2	152.1	89.5	58.4	54.1	43.3	32.9	30.4	27.3	24.9
221	305.4	309.1	314.6	305.5	291.0	268.3	249.7	233.5	205.1	202.3	115.6	67.0	62.9	49.9	35.1	28.5	27.1	25.1
225	347.8	343.9	341.1	336.2	327.6	308.5	300.5	280.8	254.4	239.6	165.4	122.5	81.1	49.6	38.9	32.1	29.4	26.3
231	377.0	379.1	392.1	373.3	353.3	331.9	313.5	311.3	295.5	306.4	273.5	212.8	110.9	51.2	33.0	29.6	28.5	25.9
235	401.2	401.6	420.2	404.9	398.2	379.0	368.3	354.6	318.9	293.6	264.0	214.3	145.9	89.7	53.6	42.1	31.6	26.3
241	396.7	402.1	412.9	392.8	381.4	365.4	341.4	332.5	303.8	288.2	267.8	226.4	165.7	113.7	57.8	44.2	34.4	28.3
245	396.1	398.6	416.2	402.2	400.2	381.2	370.5	337.3	310.0	299.7	256.1	205.7	172.6	146.3	86.4	43.0	38.1	32.7
251	408.1	413.6	431.4	424.7	419.9	404.7	388.1	366.8	335.2	326.1	280.7	246.6	212.8	178.3	110.7	57.4	45.2	36.2
255	404.6	405.2	415.0	402.5	397.6	381.2	355.2	314.7	302.4	284.6	261.2	234.5	217.0	184.4	119.3	74.0	49.2	34.2
261	392.5	384.6	402.7	396.9	390.5	380.8	367.9	316.8	298.5	288.9	274.5	258.6	222.7	182.0	131.3	94.1	53.5	38.0
265	372.1	369.0	390.4	391.3	386.4	375.3	365.1	340.6	310.1	292.6	271.1	235.4	201.2	152.7	73.0	54.6	48.3	38.6
271	376.3	370.0	393.6	389.9	373.1	345.0	331.4	315.2	321.2	320.1	287.7	231.1	179.4	135.7	71.7	57.4	48.7	40.0
275	354.0	363.8	369.3	365.4	354.0	335.1	330.2	311.5	301.5	278.8	254.3	221.0	191.8	154.6	97.6	67.7	52.2	42.0

Temperature measurements (°C), burner experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
-123	37.2	36.9	36.6	36.4	36.1	35.5	35.0	34.3	33.8	33.2	32.9	32.6	32.3	31.9	31.7	31.8	32.0	31.9
-119	37.2	36.9	36.7	36.5	36.1	35.5	35.0	34.3	33.7	33.3	32.8	32.6	32.1	31.9	31.7	31.7	31.9	31.9
-113	37.2	37.0	36.7	36.5	36.2	35.5	35.0	34.4	33.7	33.2	32.8	32.5	32.2	31.9	31.7	31.8	32.1	32.0
-109	37.0	36.9	36.6	36.5	36.2	35.4	35.0	34.3	33.7	33.2	32.8	32.4	32.2	31.9	31.7	31.7	31.9	31.7
-103	37.0	36.9	36.6	36.5	36.2	35.5	35.0	34.4	33.8	33.3	32.7	32.4	32.2	32.0	31.8	31.7	32.0	31.9
-99	37.1	37.0	36.7	36.5	36.1	35.5	35.1	34.4	33.8	33.3	32.6	32.5	32.2	32.0	31.8	31.8	31.9	31.9
-93	37.2	37.0	36.7	36.4	36.1	35.3	34.9	34.3	33.7	33.2	32.6	32.6	32.3	32.0	31.8	31.8	31.9	32.0
-89	37.2	36.9	36.6	36.3	36.0	35.1	34.8	34.2	33.6	33.2	32.6	32.6	32.2	32.1	31.8	31.8	32.0	31.9
-83	37.2	37.0	36.7	36.3	36.0	35.2	34.8	34.2	33.6	33.3	32.8	32.7	32.3	32.2	31.8	31.8	32.1	31.8
-79	37.2	37.0	36.7	36.5	36.1	35.4	34.8	34.2	33.5	33.2	32.9	32.8	32.6	32.3	32.1	31.9	32.1	31.9
-73	37.2	37.0	36.7	36.5	36.1	35.4	34.7	34.1	33.4	33.1	32.8	32.8	32.7	32.3	31.9	31.8	32.0	32.0
-69	37.1	37.0	36.7	36.4	36.1	35.2	34.5	34.0	33.3	33.1	32.9	32.8	32.5	32.3	31.9	31.9	32.0	32.0
-63	37.2	36.8	36.6	36.4	36.1	35.2	34.6	33.9	33.2	33.0	32.9	32.7	32.5	32.3	32.1	31.9	32.0	31.9
-59	37.1	36.8	36.6	36.4	36.1	35.3	34.6	34.0	33.3	33.1	32.8	32.7	32.5	32.4	32.2	32.1	32.2	32.0
-53	37.2	36.9	36.6	36.4	36.1	35.4	34.7	34.1	33.4	33.2	33.0	32.8	32.5	32.5	32.4	32.3	32.3	32.0
-49	37.1	36.9	36.6	36.4	36.1	35.4	34.7	34.2	33.5	33.3	33.0	32.9	32.6	32.4	32.5	32.3	32.4	32.0
-43	37.0	36.8	36.7	36.5	36.4	35.7	35.0	34.3	33.7	33.3	33.1	32.9	32.7	32.4	32.6	32.3	32.4	32.1
-39	36.9	36.7	36.6	36.6	36.5	36.1	35.2	34.4	33.9	33.5	33.2	33.1	32.8	32.5	32.6	32.4	32.5	32.2
-33	36.7	36.6	36.6	36.6	36.5	36.3	35.4	34.5	33.9	33.5	33.3	33.1	32.8	32.5	32.6	32.5	32.6	32.3
-29	37.0	36.7	36.7	36.6	36.6	36.4	35.5	34.6	33.9	33.6	33.3	33.1	32.8	32.5	32.6	32.5	32.7	32.3
-23	37.2	37.0	36.8	36.6	36.6	36.3	35.4	34.5	33.9	33.6	33.3	33.0	32.8	32.5	32.6	32.5	32.7	32.3
-19	37.2	37.1	37.0	36.7	36.6	36.4	35.5	34.6	34.2	33.7	33.4	33.0	32.9	32.6	32.6	32.5	32.6	32.4
-13	37.2	37.2	37.1	36.8	36.7	36.6	35.6	34.7	34.4	33.9	33.5	33.1	32.9	32.7	32.7	32.5	32.6	32.4
-9	37.4	37.3	37.2	37.0	37.0	36.7	35.7	35.1	34.5	33.8	33.5	33.1	32.9	32.8	32.8	32.4	32.6	32.4
-3	37.4	37.4	37.2	37.1	37.0	36.7	35.9	35.2	34.5	33.8	33.4	33.2	32.9	32.8	32.6	32.4	32.6	32.5
1	37.3	37.2	37.2	37.1	37.0	36.6	35.9	35.2	34.4	33.7	33.3	33.1	32.8	32.7	32.6	32.4	32.5	32.5
7	38.9	39.4	38.9	37.2	37.1	36.7	36.0	35.4	34.6	33.8	33.5	33.3	33.2	33.1	32.8	32.6	32.8	32.6
11	55.7	53.6	48.8	42.9	38.3	37.6	36.7	36.2	35.6	34.7	34.6	34.2	34.4	34.3	33.9	33.8	34.1	34.1
17	90.2	86.1	79.9	61.0	52.7	49.8	43.3	43.2	41.4	38.6	38.7	37.6	38.7	37.8	37.4	37.7	38.4	38.0
21	225.6	210.2	152.2	110.9	100.8	97.8	75.0	72.4	66.9	54.9	52.4	49.6	52.8	48.9	49.2	49.0	51.3	50.1
27	373.0	353.5	326.6	234.9	216.3	216.6	154.8	148.1	114.9	88.9	71.7	60.6	64.2	62.7	58.2	58.7	63.2	58.8
31	369.9	352.4	331.2	283.6	271.6	266.0	224.0	213.6	187.5	137.8	99.5	76.0	76.7	69.3	64.8	65.4	69.0	62.5
37	411.1	391.9	363.9	315.0	298.2	295.8	259.1	256.9	244.1	208.6	143.9	87.2	80.3	70.6	68.8	69.7	79.1	67.9
41	430.6	410.6	394.0	360.5	341.7	334.8	293.9	298.3	293.9	273.9	195.4	121.7	92.6	83.0	77.9	74.1	88.2	75.3
47	429.8	412.2	405.8	369.1	348.1	351.4	320.0	320.4	304.5	275.9	205.3	121.5	97.6	84.6	83.5	80.2	95.4	83.9
51	427.3	422.3	414.2	391.4	374.7	357.9	334.3	326.9	326.6	297.9	214.4	121.6	93.3	85.8	80.4	78.4	91.3	81.8
57	426.0	426.8	418.9	386.8	372.1	359.3	331.4	333.2	329.7	313.3	233.2	137.0	95.9	89.8	86.3	84.7	88.6	80.6
61	435.3	430.4	412.0	388.2	374.1	367.7	350.7	345.4	335.8	311.8	243.5	142.4	100.6	91.9	87.5	86.1	92.0	85.3
67	395.3	397.9	394.0	386.6	373.7	363.8	348.0	348.9	344.7	316.4	280.8	163.6	107.4	95.5	88.4	85.7	96.6	89.3
71	405.7	409.9	402.0	391.9	378.2	372.3	359.3	353.4	348.7	332.7	278.7	183.9	113.8	101.6	91.9	87.8	97.3	92.6
77	410.1	418.8	414.3	413.9	407.0	410.0	389.7	373.4	354.1	341.3	311.4	214.2	130.4	107.7	96.2	88.6	98.9	93.4
81	418.6	427.8	415.6	404.5	395.2	406.0	384.7	370.6	352.6	347.9	328.3	201.6	134.7	116.9	101.0	91.5	100.6	95.1
87	422.5	435.0	424.7	427.7	421.8	416.2	400.2	387.2	365.8	348.2	301.6	220.9	144.5	125.2	103.8	95.9	105.3	98.4
91	447.6	454.4	446.6	429.9	413.9	414.7	402.8	387.3	362.9	345.1	324.3	241.8	145.4	126.9	106.2	99.3	106.2	99.7
97	421.4	430.9	427.5	427.5	421.5	428.5	406.7	388.9	364.4	348.8	325.4	240.5	160.3	134.1	112.4	102.7	104.8	100.0
101	457.3	462.0	448.7	439.4	424.8	421.9	407.9	403.0	378.8	353.0	327.5	247.3	165.9	133.8	110.8	102.8	110.5	106.9
107	431.0	443.2	445.5	448.3	447.0	446.2	426.8	401.2	375.0	349.8	309.7	224.2	171.1	138.3	115.9	106.6	113.9	110.7
111	425.8	438.5	440.4	439.7	434.1	436.0	433.4	416.9	376.8	349.1	321.0	252.3	171.0	148.6	125.1	108.9	117.6	112.0
117	443.8	451.4	451.1	445.1	435.2	438.5	435.2	426.9	400.9	361.6	329.9	243.4	180.0	147.7	124.4	114.6	121.0	115.4
121	451.8	463.4	460.7	452.2	448.0	449.0	426.9	406.3	381.0	355.4	318.5	240.1	179.0	149.8	125.0	118.3	127.4	120.2
127	448.7	462.1	461.2	458.9	455.8	462.6	451.0	423.9	382.5	362.5	337.2	256.3	192.8	172.1	142.0	118.0	129.0	122.9
131	452.5	462.8	459.9	457.5	451.7	443.3	424.9	405.0	381.9	367.0	333.0	256.1	185.7	162.1	129.9	124.0	135.2	126.6
137	463.9	474.3	469.7	462.2	451.0	449.8	431.1	410.6	383.8	367.3	342.8	274.3	200.2	158.3	135.9	128.7	136.9	127.1
141	469.4	479.8	475.5	464.3	454.6	449.2	431.9	418.9	395.7	375.0	348.0	273.3	205.5	181.0	149.2	124.5	135.1	127.7
147	469.3	476.8	468.8	463.8	461.5	464.4	451.5	430.6	406.5	385.9	347.6	278.2	216.0	183.5	149.6	132.4	140.9	132.5
151	480.2	491.8	484.2	474.0	462.1	447.6	432.7	418.9	384.0	360.8	329.1	282.5	233.7	211.8	187.2	151.1	146.9	142.4
157	474.0	483.4	478.4	470.1	461.2	456.7	437.6	404.7	384.5	370.1	328.2	269.9	231.9	223.4	202.2	165.9	152.1	140.9
161	490.0	500.6	501.5	482.9	478.7	476.1	462.9	444.8	410.5	399.6	332.2	283.8	246.9	214.6	189.3	160.9	157.5	151.5
167	546.5	552.4	533.6	506.7	484.6	474.4	458.4	443.8	423.4	372.1	327.9	298.8	270.6	241.6	198.6	167.3	159.7	147.8
171	539.7	550.6	544.5	515.1	493.9	478.3	456.6	444.8	427.6	407.3	369.3	300.8	281.0	245.4	201.8	161.6	170.0	162.0
177	532.0	538.3	514.0	493.0	476.1	461.0	443.5	426.3	411.9	407.9	386.9	349.6	323.2	305.2	251.7	225.4	185.5	159.6
181	522.9	531.7	510.7	476.4	465.6	451.6	434.6	419.1	398.1	388.3	379.9	348.4	332.0	310.7	277.0	238.6	218.3	174.4
187	514.8	523.2	513.5	486.3	470.9	465.8	442.1	432.3	424.5	419.2	421.1	420.3	414.4	371.5	306.3	268.9	235.3	166.8

Temperature measurements (°C), burner experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
191	570.4	576.0	552.8	532.3	510.6	499.1	455.7	440.3	423.0	416.9	404.4	386.2	364.5	372.0	369.4	340.3	268.1	184.5
197	596.2	610.4	579.5	559.6	541.5	525.9	498.9	485.3	469.8	453.4	441.7	416.6	386.2	348.2	313.3	287.6	249.0	187.7
201	594.6	612.4	593.1	571.8	556.5	547.5	524.5	506.4	478.8	441.6	419.5	399.5	379.6	402.0	411.6	418.3	398.4	274.8
207	621.9	631.7	607.0	589.9	577.3	575.6	544.6	524.9	492.2	458.0	420.0	413.5	414.0	401.8	422.4	513.3	472.2	344.1
211	646.2	663.1	636.1	621.3	606.0	594.6	564.4	538.4	509.5	501.9	477.0	439.5	423.2	404.0	393.3	431.2	505.5	463.8
217	661.4	667.0	648.1	630.2	609.6	601.5	554.6	520.9	504.1	497.1	507.7	480.9	460.3	485.4	529.7	587.4	640.6	533.4
221	703.0	726.0	709.0	681.2	661.6	647.0	612.1	574.0	549.8	529.5	521.3	499.8	504.9	520.8	517.2	614.7	688.1	633.9
227	686.8	703.0	688.3	669.0	656.0	638.7	597.8	574.8	561.3	552.4	541.8	528.0	527.3	519.6	473.4	465.0	492.5	571.3
231	688.0	708.0	685.0	662.3	653.6	651.2	615.3	601.8	569.9	559.4	535.5	518.8	495.6	514.2	522.8	502.7	576.2	516.3
237	703.0	731.0	707.0	696.9	683.3	685.4	670.2	671.6	665.9	659.1	644.2	630.0	614.3	589.7	547.1	489.3	527.0	617.2
241	713.0	736.0	727.0	722.0	709.0	703.0	687.1	678.4	669.2	663.2	640.6	632.4	620.4	599.6	562.2	469.3	550.4	806.0
247	716.0	728.0	730.0	742.0	737.0	739.0	715.0	707.0	699.7	695.0	691.3	663.2	648.8	630.2	588.5	496.2	480.6	429.3
251	716.0	720.0	719.0	712.0	695.2	671.0	657.6	634.8	625.5	619.3	611.3	592.7	596.6	576.5	552.3	491.4	460.4	354.1
257	657.3	656.3	644.8	636.7	626.7	605.1	604.7	582.1	571.0	562.8	557.7	541.3	506.5	491.4	462.3	420.9	414.5	341.2
261	602.6	604.6	599.2	584.8	577.3	562.4	570.2	546.5	540.4	531.9	511.8	501.2	448.8	417.0	399.3	375.0	348.4	293.4

Temperature measurements (°C), burner experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
-123	33.7	33.5	33.0	33.0	32.9	32.7	32.3	31.9	31.6	31.4	30.7	30.2	29.6	29.3	29.5	29.3	29.3	29.3
-119	33.8	33.7	33.1	32.9	32.9	32.8	32.4	32.1	31.7	31.5	30.9	30.4	29.9	29.3	29.4	29.3	29.2	29.2
-113	34.0	33.8	33.3	33.1	32.9	32.8	32.7	32.3	31.8	31.5	31.0	30.6	30.2	29.4	29.4	29.3	29.3	29.1
-109	33.8	33.7	33.3	33.2	33.0	32.8	32.7	32.5	31.8	31.6	31.1	30.7	30.1	29.6	29.4	29.3	29.1	29.2
-103	34.0	33.6	33.1	33.0	33.0	32.8	32.7	32.2	31.4	31.3	30.5	30.4	29.9	29.5	29.4	29.4	29.2	29.1
-99	33.5	33.4	33.1	33.0	32.9	32.8	32.6	32.5	31.6	31.2	30.7	30.8	30.6	29.6	29.5	29.4	29.2	28.9
-93	33.3	33.2	33.0	32.9	32.8	32.7	32.6	32.5	31.7	31.5	30.9	30.8	30.8	30.1	29.8	29.5	29.3	29.0
-89	33.2	33.1	33.0	32.8	32.8	32.7	32.6	32.4	31.7	31.5	31.0	30.9	30.7	30.3	29.9	29.6	29.3	29.1
-83	33.2	33.1	33.0	33.0	32.8	32.7	32.5	32.5	32.1	31.6	30.8	30.5	30.3	29.9	29.7	29.4	29.3	29.0
-79	33.5	33.4	33.1	33.2	33.0	32.9	32.5	32.5	32.2	31.6	30.6	30.4	30.1	29.8	29.7	29.3	29.2	29.1
-73	33.5	33.4	33.3	33.3	33.1	33.1	32.8	32.5	32.2	31.7	30.6	30.4	30.0	29.6	29.5	29.3	29.3	29.2
-69	33.6	33.6	33.3	33.5	33.3	33.3	32.8	32.7	32.1	31.1	30.4	30.3	30.0	29.7	29.6	29.4	29.4	29.2
-63	33.8	33.7	33.4	33.3	33.1	33.1	32.7	32.8	32.4	31.6	30.9	30.2	30.0	29.7	29.5	29.4	29.4	29.2
-59	33.7	33.7	33.3	33.2	33.1	33.1	32.7	32.5	32.0	31.3	30.6	30.1	29.7	29.6	29.6	29.3	29.4	29.2
-53	33.6	33.5	33.1	33.1	33.0	33.0	32.3	32.0	31.8	31.2	30.7	30.2	29.8	29.7	29.7	29.5	29.4	29.3
-49	33.5	33.4	33.1	33.0	32.9	32.8	32.3	32.1	31.6	31.0	30.6	30.3	30.0	29.8	29.8	29.6	29.4	29.3
-43	33.5	33.4	33.2	33.1	32.9	32.7	32.2	32.0	31.3	31.0	30.5	30.4	30.2	30.0	29.9	29.5	29.4	29.1
-39	33.6	33.6	33.4	33.2	33.1	32.8	32.4	32.2	31.5	31.0	30.6	30.4	30.2	30.1	30.0	29.7	29.4	29.1
-33	33.5	33.5	33.4	33.3	33.1	33.0	32.6	32.4	31.9	31.2	30.6	30.4	30.4	30.3	30.2	29.9	29.7	29.4
-29	33.9	33.6	33.3	33.2	33.1	33.1	32.6	32.2	31.5	31.1	30.6	30.4	30.3	30.0	30.0	29.8	29.8	29.4
-23	33.8	33.5	33.3	33.2	33.1	33.0	32.3	31.6	31.3	31.0	30.3	30.3	30.1	30.0	29.8	29.7	29.5	29.4
-19	33.5	33.4	33.3	33.0	32.9	32.7	31.9	31.4	31.2	30.8	30.3	30.3	30.0	29.9	29.6	29.6	29.4	29.4
-13	33.6	33.4	33.3	33.0	32.9	32.6	31.7	31.2	31.1	30.8	30.5	30.3	30.0	29.9	29.7	29.6	29.4	29.2
-9	33.7	33.5	33.2	33.1	33.0	32.6	31.9	31.5	31.3	31.0	30.6	30.4	30.2	30.1	30.0	29.7	29.5	29.1
-3	34.0	33.8	33.5	33.3	33.2	32.9	32.2	31.6	31.4	31.0	30.7	30.5	30.3	30.2	29.9	29.8	29.6	29.3
1	34.0	33.7	33.4	33.1	33.1	32.6	32.3	31.8	31.7	31.1	30.6	30.6	30.3	30.1	29.8	29.9	29.5	29.2
7	34.0	33.6	33.2	33.1	33.0	32.8	32.3	32.0	31.9	31.5	30.8	30.6	30.3	30.1	29.9	29.9	29.6	29.2
11	33.7	33.5	33.3	33.0	32.9	32.7	32.5	32.1	32.1	31.5	31.0	30.7	30.4	29.9	29.9	29.7	29.5	29.3
17	33.8	33.5	33.4	33.1	33.1	32.8	32.5	32.3	32.2	31.6	31.0	30.8	30.4	29.9	29.8	29.6	29.1	29.1
21	33.7	33.4	33.2	33.1	33.0	32.8	32.5	32.2	32.1	31.7	30.9	30.6	30.3	29.8	29.6	29.4	29.2	29.2
27	33.3	33.2	32.9	32.8	32.8	32.9	32.6	32.2	32.1	31.6	31.1	30.9	30.3	29.7	29.4	29.2	29.1	29.3
31	34.2	33.9	34.1	33.2	33.3	33.1	32.6	32.5	32.3	31.8	31.6	31.2	30.7	30.3	29.7	29.4	29.0	29.2
37	58.0	54.5	46.9	39.2	34.4	32.5	32.2	32.2	32.2	31.9	31.6	31.3	30.9	30.5	30.1	29.8	29.2	29.3
41	82.7	77.1	65.9	47.9	36.7	32.2	32.1	32.0	32.1	31.9	31.2	31.1	30.7	30.4	30.2	29.9	29.5	29.4
47	90.9	89.4	78.4	62.7	50.2	45.1	42.2	37.3	34.3	32.5	31.8	31.0	30.7	30.4	30.3	30.0	29.6	29.3
51	89.7	90.0	85.9	78.2	65.3	59.0	49.6	38.0	35.4	32.9	31.9	31.5	31.0	30.4	30.4	29.8	29.5	29.3
57	104.1	102.6	99.6	88.3	73.8	67.8	56.5	36.3	34.4	32.6	32.0	31.6	30.8	30.4	30.2	29.6	29.5	29.4
61	107.3	106.5	102.3	90.0	77.9	72.6	65.0	39.1	34.6	32.9	32.3	31.7	30.8	30.1	29.9	29.6	29.5	29.6
67	106.3	105.9	105.1	91.8	85.7	81.2	73.9	50.1	43.0	35.3	33.1	32.5	31.4	30.6	30.0	29.8	29.6	29.8
71	118.7	117.2	114.2	102.0	95.9	85.0	77.7	57.3	45.1	37.0	34.1	32.9	32.0	31.1	30.5	29.9	29.7	29.8
77	124.3	124.9	122.1	116.4	104.8	92.9	85.0	67.0	47.8	37.1	34.5	32.9	32.0	31.2	30.8	30.5	29.8	30.0
81	127.5	127.4	126.9	121.5	113.3	101.2	92.4	62.6	55.5	42.7	34.8	33.2	32.4	31.4	31.1	30.7	30.1	30.1
87	124.4	124.6	123.7	117.2	112.3	105.2	96.7	67.2	59.0	46.2	36.0	33.6	32.7	31.6	31.3	30.9	30.4	30.2
91	137.2	137.2	134.8	126.3	115.0	105.8	98.1	74.8	62.0	51.4	39.5	34.2	32.9	32.2	31.6	31.3	30.2	30.1
97	138.0	139.7	138.3	132.0	123.2	110.8	103.7	81.1	66.9	52.7	38.6	34.5	33.3	32.2	31.6	31.3	30.6	30.6
101	135.7	135.9	135.7	127.7	118.2	114.9	106.2	84.1	70.6	58.8	40.4	35.3	33.6	32.4	32.0	31.7	30.6	30.7
107	138.2	138.0	138.1	132.3	125.9	118.5	108.2	84.3	71.6	58.9	43.1	35.6	34.0	32.9	32.4	31.9	31.1	31.0
111	144.1	145.7	144.6	138.4	129.6	119.6	110.2	85.8	80.9	63.9	47.1	36.4	34.5	32.8	32.2	31.8	31.0	30.6
117	150.3	151.0	145.4	135.5	127.3	117.6	111.9	93.4	81.5	65.6	46.8	37.1	35.5	33.5	32.3	32.5	31.3	30.5
121	141.9	141.3	142.5	138.4	132.0	127.6	113.3	94.4	82.1	68.8	47.0	37.7	35.5	34.1	32.9	32.6	31.2	30.5
127	148.0	147.5	148.0	142.7	135.6	124.5	114.3	92.6	83.5	73.2	50.3	38.8	36.1	34.2	33.0	32.2	31.5	31.1
131	150.9	150.4	146.6	141.3	136.6	130.7	115.1	95.8	85.7	72.4	52.3	39.7	36.6	34.4	33.1	32.2	31.2	30.5
137	149.4	151.1	146.8	138.4	131.8	130.0	114.3	94.5	87.8	73.8	53.5	39.5	36.8	34.6	33.1	32.4	31.7	30.6
141	152.5	153.5	151.5	139.9	131.1	127.3	115.7	95.4	90.9	72.9	54.9	41.0	37.8	35.2	33.5	32.6	31.8	31.2
147	148.0	151.8	154.1	149.4	141.1	133.4	117.6	96.8	92.0	78.7	59.4	41.0	37.6	35.3	34.1	32.7	32.0	31.0
151	153.1	152.6	151.0	146.7	140.4	133.1	117.3	101.6	92.9	81.9	62.1	41.4	37.3	35.3	34.2	33.2	32.1	30.9
157	159.7	160.5	161.0	157.0	145.6	132.4	117.2	100.6	95.1	80.2	60.8	43.1	37.3	34.6	34.2	33.1	32.4	31.0
161	160.2	159.4	157.1	151.1	144.6	135.4	123.1	100.1	96.2	84.5	65.7	43.5	37.7	34.8	34.1	33.2	32.1	30.9
167	154.4	158.5	160.2	155.5	144.0	139.4	126.3	103.4	97.8	85.4	68.1	45.8	37.7	34.8	34.2	33.6	32.5	30.9
171	169.4	169.8	167.1	161.3	152.5	140.8	126.4	105.5	99.7	87.8	67.8	46.9	38.7	35.2	34.2	33.7	32.8	31.2
177	161.4	162.3	159.4	153.6	146.5	137.5	121.3	106.5	99.4	88.1	70.5	48.2	38.2	35.3	34.5	33.8	32.6	31.5
181	161.1	162.8	168.3	162.0	155.0	145.8	132.1	113.5	100.3	90.1	74.0	50.0	39.3	35.8	34.8	34.0	33.1	32.2
187	171.6	171.9	169.9	161.2	152.0	141.9	132.1	114.2	101.6	94.3	74.7	49.6	39.1	35.6	34.5	34.4	32.3	31.3

Temperature measurements (°C), burner experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
191	170.6	171.1	165.9	162.2	156.0	150.1	136.9	126.4	104.5	95.6	75.7	52.2	39.9	35.8	34.9	34.4	32.4	31.6
197	180.4	179.4	171.7	165.8	161.7	149.3	137.4	119.7	106.1	97.9	82.5	60.7	40.7	36.7	35.4	34.7	32.6	31.3
201	184.3	182.9	178.8	170.8	162.3	153.4	142.3	122.8	106.5	99.4	81.7	59.9	40.2	36.3	36.0	35.2	32.4	31.0
207	188.2	188.9	184.1	177.0	170.0	161.3	140.8	125.8	109.6	96.1	81.3	60.3	42.0	36.1	35.9	34.4	32.5	30.8
211	180.0	181.7	181.7	176.7	171.8	160.3	146.7	132.9	115.7	102.8	84.9	61.4	43.6	37.7	36.7	35.1	33.6	32.2
217	194.0	195.2	195.2	189.8	178.1	165.2	153.9	132.1	116.7	105.8	90.2	65.5	42.3	37.5	36.7	34.8	32.9	32.2
221	194.6	197.0	194.4	186.5	177.0	168.6	159.2	136.1	118.2	109.5	92.6	66.2	45.6	37.7	35.9	34.7	33.3	32.8
227	206.1	208.7	205.5	195.8	186.8	177.3	164.6	151.7	132.2	116.1	99.0	71.4	43.6	38.5	37.7	35.9	34.3	33.5
231	212.5	213.1	212.7	208.1	201.8	184.7	163.5	150.9	129.4	118.3	98.9	76.6	48.7	38.7	38.1	37.3	35.5	34.1
237	230.7	226.5	223.5	211.1	204.8	192.8	175.0	155.2	132.3	122.4	108.0	74.7	49.8	39.3	38.3	37.4	35.9	34.6
241	226.4	229.6	229.7	223.7	215.5	205.3	189.4	167.1	139.6	126.2	107.7	77.6	52.2	39.8	38.9	37.8	36.3	34.1
247	265.1	262.9	255.9	247.5	234.4	217.6	194.0	175.8	143.4	129.8	111.5	89.9	54.8	41.1	39.5	38.4	37.2	36.4
251	252.8	255.9	253.5	238.9	231.7	217.0	200.8	174.1	141.6	132.0	119.0	97.9	56.4	42.0	40.4	40.4	36.9	35.4
257	244.8	246.7	242.3	230.8	222.2	213.1	196.4	169.0	149.8	140.4	119.9	92.4	57.0	41.7	40.8	40.6	35.7	34.5
261	228.7	230.6	231.1	223.4	214.7	202.1	179.9	161.3	150.7	139.1	120.2	91.5	56.7	45.0	40.7	36.1	33.6	33.2

Temperature measurements (°C), burner experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
-123	36.1	36.0	35.7	35.6	35.4	35.0	34.0	33.3	32.8	32.5	32.1	31.8	31.2	30.6	30.3	30.1	30.1	29.7
-119	36.2	36.0	35.9	35.6	35.4	35.0	34.0	33.3	32.9	32.6	32.1	31.8	31.2	30.6	30.3	30.2	30.1	29.7
-113	36.2	36.1	35.9	35.6	35.6	35.0	34.3	33.4	32.9	32.6	32.2	31.8	31.3	30.6	30.3	30.2	30.2	29.7
-109	36.3	36.1	35.9	35.7	35.5	35.2	34.2	33.3	32.9	32.6	32.2	31.8	31.2	30.6	30.4	30.2	30.2	29.9
-103	36.1	36.1	35.9	35.7	35.5	35.1	34.1	33.4	33.0	32.7	32.2	31.8	31.2	30.7	30.4	30.2	30.2	29.8
-99	36.1	36.0	35.8	35.8	35.7	35.3	34.4	33.5	33.0	32.7	32.2	31.8	31.4	30.8	30.5	30.2	30.2	29.8
-93	36.1	36.0	35.9	35.8	35.5	35.2	34.5	33.7	33.1	32.6	32.3	31.9	31.4	30.8	30.5	30.2	30.2	29.8
-89	36.0	36.0	35.5	35.2	35.0	34.8	34.3	33.7	33.1	32.7	32.3	31.9	31.5	30.8	30.6	30.2	30.2	29.8
-83	36.1	35.9	35.5	35.1	34.9	34.7	34.2	33.7	33.2	32.7	32.3	31.9	31.3	30.7	30.5	30.1	30.1	29.7
-79	36.1	35.9	35.7	35.2	35.0	34.7	34.2	33.9	33.3	32.6	32.2	31.7	31.2	30.7	30.3	30.1	30.1	29.8
-73	36.1	36.0	35.8	35.5	35.2	34.9	34.4	33.8	33.3	32.6	32.1	31.6	31.0	30.6	30.4	30.2	30.1	29.8
-69	36.2	36.0	35.7	35.5	35.1	34.6	34.3	33.7	33.1	32.3	32.0	31.5	31.0	30.6	30.4	30.3	30.1	29.9
-63	36.1	36.0	35.6	35.4	34.9	34.5	34.1	33.6	33.0	32.2	32.0	31.6	31.1	30.7	30.5	30.4	30.3	30.0
-59	36.0	35.9	35.6	35.3	34.9	34.4	33.9	33.5	32.9	32.3	32.0	31.7	31.2	30.8	30.6	30.4	30.3	30.1
-53	36.0	35.8	35.5	35.3	35.1	34.6	34.2	33.4	32.9	32.5	32.2	31.8	31.4	30.9	30.6	30.4	30.4	30.1
-49	36.0	35.8	35.5	35.3	35.2	34.8	34.4	33.7	33.0	32.7	32.3	32.0	31.5	31.0	30.6	30.5	30.4	30.0
-43	36.0	35.9	35.5	35.3	35.2	34.5	34.3	33.5	33.0	32.7	32.3	31.9	31.3	30.9	30.6	30.4	30.3	30.0
-39	36.0	35.8	35.4	35.2	35.0	34.6	33.9	33.1	32.7	32.3	31.9	31.6	31.1	30.8	30.4	30.4	30.1	29.9
-33	36.0	35.7	35.2	34.9	34.9	34.4	33.4	32.6	32.5	31.9	31.7	31.4	31.1	30.9	30.6	30.4	30.4	29.9
-29	35.9	35.7	35.2	34.9	34.8	34.2	33.4	32.5	32.2	31.7	31.6	31.4	31.2	30.9	30.7	30.5	30.4	30.0
-23	36.0	35.8	35.2	34.9	34.7	34.3	33.5	32.8	32.3	31.8	31.6	31.5	31.3	31.0	30.7	30.6	30.4	30.0
-19	36.4	36.1	35.7	35.4	35.0	34.6	33.8	33.2	32.5	32.1	31.8	31.7	31.3	31.1	30.7	30.5	30.3	30.0
-13	36.5	36.0	35.7	35.7	35.4	34.8	34.2	33.5	32.9	32.4	32.0	31.8	31.5	31.2	30.7	30.4	30.2	29.9
-9	36.5	36.2	35.9	35.6	35.4	34.8	34.3	33.8	33.2	32.8	32.1	31.7	31.5	31.1	30.6	30.3	30.2	29.9
-3	36.4	36.3	36.1	35.8	35.6	34.9	34.3	33.8	33.3	32.8	32.1	31.7	31.5	31.0	30.6	30.3	30.2	29.9
1	36.5	36.5	36.4	36.2	35.8	35.2	34.4	33.9	33.3	32.9	32.2	31.8	31.5	31.0	30.6	30.3	30.2	29.9
7	36.7	36.7	36.7	36.4	36.1	35.5	34.6	34.3	33.4	33.0	32.3	31.8	31.5	31.0	30.6	30.4	30.3	29.9
11	36.7	36.7	36.7	36.6	36.2	35.5	35.0	34.5	33.6	33.1	32.3	31.8	31.5	30.9	30.6	30.4	30.2	30.0
17	36.9	36.8	36.8	36.4	35.9	35.5	35.3	34.8	33.9	33.3	32.3	31.8	31.4	30.9	30.6	30.4	30.3	29.9
21	59.6	58.9	56.3	50.9	47.1	39.9	37.6	38.0	36.0	35.7	33.9	32.7	31.7	31.3	30.8	30.6	30.3	30.0
27	147.3	145.5	137.5	119.9	103.7	71.3	54.1	42.2	39.5	37.6	35.5	35.7	34.7	33.6	32.3	31.2	30.6	30.3
31	217.4	219.2	204.7	179.8	159.6	127.7	112.1	112.8	91.0	54.6	46.1	38.0	37.2	36.0	34.9	32.6	31.5	30.6
37	261.9	264.7	246.8	224.9	205.9	180.7	157.4	155.7	114.5	69.6	46.6	39.2	37.9	35.7	33.5	32.1	31.6	30.8
41	268.7	275.1	273.0	256.4	242.4	213.9	199.6	194.9	154.5	90.6	48.3	41.6	39.8	37.2	34.4	32.4	32.0	30.9
47	281.7	290.1	287.4	270.3	250.5	228.2	215.1	193.6	145.5	107.6	63.6	43.3	40.5	37.6	35.3	33.2	32.7	31.4
51	286.9	293.4	291.4	274.7	257.0	242.4	226.9	210.2	167.6	106.2	56.2	41.0	38.0	36.0	34.4	33.5	33.0	31.6
57	285.5	292.3	294.9	282.2	270.2	249.8	235.4	210.5	171.3	139.6	52.9	40.2	37.7	36.3	34.7	33.3	33.0	31.6
61	292.1	300.7	301.0	291.3	274.9	242.8	229.2	216.9	187.6	135.8	80.7	41.7	38.3	36.4	34.9	34.0	33.5	31.9
67	286.5	291.4	287.1	274.9	264.1	242.0	231.8	234.3	199.6	139.6	87.5	45.0	38.7	36.9	34.9	34.6	34.0	32.3
71	296.3	300.7	298.9	288.9	278.1	268.2	247.8	237.9	206.1	163.0	93.4	48.8	40.9	37.2	34.9	34.0	34.2	32.5
77	281.6	289.3	297.4	289.9	277.1	259.5	249.7	250.6	207.9	163.5	113.1	52.2	40.1	37.1	35.4	34.6	34.6	32.7
81	298.3	303.0	308.3	286.6	273.4	254.3	246.1	240.6	198.9	170.0	96.7	53.8	43.0	38.4	36.4	34.8	35.1	33.1
87	294.5	297.4	300.8	291.8	280.8	265.7	245.2	238.6	208.6	170.6	112.3	59.9	43.0	38.8	36.3	35.2	35.4	33.4
91	297.2	301.9	309.0	294.3	280.4	258.7	239.4	234.4	210.8	177.3	131.0	73.6	49.8	40.8	37.4	35.7	35.8	34.0
97	289.7	295.1	295.5	281.5	270.6	257.7	253.5	254.1	224.1	180.3	131.6	65.0	49.4	40.8	37.2	36.4	36.3	33.7
101	294.0	300.2	290.3	282.5	274.5	255.1	244.3	246.2	225.0	183.7	123.8	73.7	55.8	44.1	37.3	36.4	36.5	33.7
107	306.0	303.4	296.7	281.2	268.5	254.8	247.0	235.5	199.9	159.9	116.1	69.3	55.2	44.2	37.5	36.7	37.1	33.8
111	289.5	292.2	293.2	281.2	268.1	256.9	252.4	253.6	225.2	194.0	129.5	67.7	56.1	42.3	37.1	37.3	37.6	34.1
117	301.5	294.1	281.7	276.4	269.5	270.0	257.1	254.3	236.5	203.7	131.0	73.2	54.3	44.8	37.3	37.2	37.3	34.1
121	302.3	307.9	306.1	295.3	292.0	285.3	270.8	243.7	220.3	190.9	148.7	85.6	59.4	44.7	37.9	37.6	37.5	34.2
127	303.9	311.3	316.8	304.4	285.2	263.2	255.1	253.3	223.1	187.3	152.3	85.2	59.7	47.1	38.8	37.6	38.4	34.7
131	307.6	314.7	317.3	309.8	292.8	268.2	257.9	254.5	238.4	215.0	155.5	103.2	58.6	46.7	39.0	37.7	38.4	34.6
137	299.6	300.7	309.1	310.4	304.9	289.6	269.2	262.0	236.7	216.0	147.5	94.9	60.7	47.5	40.0	38.0	38.0	34.5
141	311.1	319.9	331.4	319.5	303.8	278.3	259.1	246.0	237.9	209.5	156.8	103.0	64.3	51.6	40.1	37.8	38.6	35.4
147	320.1	325.0	310.2	301.0	290.0	272.7	264.2	256.7	239.5	212.2	167.4	106.5	64.1	51.8	39.6	38.7	39.3	36.1
151	319.0	329.7	335.2	323.1	305.6	280.9	264.6	251.8	230.3	210.3	168.7	113.7	77.1	50.8	40.3	39.2	40.2	36.0
157	324.8	326.1	308.9	299.3	285.5	274.5	269.2	266.8	248.3	217.9	164.4	129.9	82.0	50.1	41.7	39.6	40.4	36.4
161	325.9	335.3	343.7	320.8	302.3	278.6	258.2	245.5	214.7	185.0	149.9	111.2	78.6	53.7	41.8	39.4	40.7	36.7
167	308.4	320.8	323.9	317.0	305.3	294.4	283.7	280.3	254.0	227.7	175.9	146.4	102.8	61.3	50.1	40.7	40.7	36.7
171	331.4	338.0	340.3	323.5	306.6	285.3	271.7	267.1	243.8	206.8	166.9	126.3	77.3	54.1	44.3	41.1	41.1	37.4
177	331.0	341.3	346.7	335.2	321.9	306.3	292.7	273.9	248.0	220.2	180.0	140.8	95.3	58.1	48.2	43.8	41.6	37.8
181	324.3	333.7	345.6	339.4	333.0	318.0	303.8	296.7	273.8	265.3	213.6	175.2	128.8	67.4	56.5	44.8	42.8	38.7
187	325.0	335.0	349.0	338.4	322.5	300.6	287.0	282.4	254.0	232.5	201.6	176.1	142.0	75.3	55.1	46.6	42.4	38.5

Temperature measurements (°C), burner experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
191	347.9	353.3	345.3	322.3	303.7	292.2	286.7	293.8	264.7	243.0	200.4	177.2	133.3	75.4	59.8	45.8	42.9	38.9
197	350.1	356.8	361.6	353.3	341.3	326.0	319.3	317.7	280.5	267.9	225.5	180.7	139.1	76.9	58.7	44.7	43.7	39.7
201	355.7	367.7	375.7	362.4	348.1	334.2	313.0	312.7	279.4	260.0	239.3	210.0	154.5	83.3	61.8	45.9	44.9	40.1
207	378.2	382.5	374.7	352.5	335.6	324.2	317.6	318.8	294.8	283.4	252.4	205.1	173.0	101.5	62.3	51.3	45.9	41.1
211	395.7	402.6	395.8	375.3	357.1	342.6	323.5	322.8	296.7	282.8	251.7	198.7	176.6	114.4	64.2	52.9	48.0	41.9
217	431.1	434.9	429.6	401.3	375.3	348.6	352.4	335.1	314.3	300.5	277.2	210.4	185.1	125.0	70.7	55.0	50.8	42.3
221	424.4	435.4	452.7	444.4	434.2	415.2	397.4	385.6	352.0	342.6	300.8	238.6	197.4	153.8	91.2	65.9	55.4	46.9
227	431.2	447.2	475.2	469.0	460.2	448.2	417.0	401.5	370.6	371.0	345.9	289.2	228.0	153.0	92.3	65.9	54.9	45.1
231	454.0	471.1	491.1	480.9	455.3	428.6	405.9	403.1	380.9	371.0	332.1	270.3	236.5	163.3	89.9	67.8	56.9	47.3
237	484.2	507.7	518.0	503.6	471.3	438.1	409.4	393.6	381.0	373.6	318.1	254.4	217.0	150.6	83.3	68.4	59.1	47.8
241	508.8	537.4	553.9	536.1	521.5	490.5	454.5	427.5	402.8	378.1	336.7	278.2	236.1	186.9	129.7	81.0	65.8	50.7
247	544.6	597.1	632.0	622.4	601.3	546.9	505.6	503.3	454.7	438.1	405.1	323.2	259.2	179.5	105.2	79.5	67.3	54.3
251	476.4	514.7	536.4	526.4	506.5	474.8	453.1	444.1	422.3	408.5	358.6	289.2	242.6	139.8	85.7	77.1	67.4	55.2
257	463.1	487.5	479.5	467.7	444.9	411.4	391.4	380.5	375.9	353.0	307.6	260.8	211.3	116.1	83.7	72.4	65.6	54.6
261	440.2	474.7	482.9	466.7	450.8	432.0	417.2	401.3	381.5	336.3	283.1	232.8	181.9	111.0	84.7	71.4	66.2	56.9

Temperature measurements (°C), twin beds experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
-122	42.4	42.1	41.5	41.0	40.4	39.5	38.6	37.7	37.0	36.4	35.6	35.1	35.0	34.7	33.9	33.3	32.8	32.1
-118	42.4	42.2	41.5	41.0	40.5	39.6	38.6	37.8	37.0	36.4	35.5	35.1	34.9	34.4	33.8	33.0	32.4	31.9
-112	42.4	42.1	41.5	41.0	40.4	39.5	38.6	37.7	37.0	36.3	35.6	35.1	34.9	34.4	33.8	33.1	32.4	31.8
-108	42.4	42.2	41.5	41.0	40.4	39.5	38.6	37.7	37.0	36.4	35.7	35.3	35.1	34.6	34.0	33.4	32.9	32.0
-102	42.4	42.2	41.5	41.0	40.4	39.5	38.6	37.7	37.0	36.3	35.7	35.3	35.1	34.6	34.2	33.1	32.7	31.9
-98	42.3	42.2	41.6	41.1	40.5	39.5	38.6	37.7	36.9	36.3	35.6	35.2	35.0	34.6	34.2	33.1	32.7	32.0
-92	42.4	42.1	41.5	41.1	40.4	39.5	38.6	37.8	37.0	36.4	35.7	35.2	35.0	34.7	34.1	33.4	32.5	32.0
-88	42.4	42.1	41.5	41.0	40.4	39.5	38.6	37.7	37.1	36.4	35.7	35.3	35.1	34.7	34.4	33.4	32.8	32.1
-82	42.4	42.1	41.5	41.0	40.4	39.3	38.5	37.6	36.9	36.2	35.6	35.4	35.0	34.7	34.4	33.5	33.1	32.6
-78	42.4	42.1	41.5	40.9	40.3	39.1	38.3	37.3	36.7	35.9	35.4	35.3	35.0	34.7	34.5	33.8	33.4	32.9
-72	42.4	42.1	41.5	41.0	40.2	39.2	38.1	37.2	36.5	35.8	35.3	35.3	34.9	34.5	34.5	33.8	33.6	33.1
-68	42.4	42.0	41.5	40.9	40.2	39.1	38.1	37.1	36.4	35.8	35.3	35.3	34.8	34.6	34.3	33.8	33.5	33.0
-62	42.4	42.0	41.4	40.9	40.1	39.0	38.1	37.1	36.4	35.6	35.4	35.3	35.0	34.5	34.3	33.7	33.8	33.1
-58	42.3	41.9	41.4	40.8	40.1	39.1	38.0	37.1	36.4	35.5	35.4	35.1	35.0	34.5	34.4	34.0	33.8	32.9
-52	42.3	42.0	41.4	40.9	40.2	39.1	38.1	37.1	36.4	35.7	35.3	35.1	35.1	34.3	34.4	34.1	33.4	32.5
-48	42.3	42.0	41.5	40.8	40.1	39.2	38.1	37.2	36.5	35.7	35.4	35.2	35.2	34.5	34.3	34.1	33.4	32.5
-42	42.5	42.2	41.6	41.0	40.2	39.3	38.3	37.2	36.6	35.9	35.5	35.4	35.2	34.5	34.3	34.2	33.6	32.4
-38	42.5	42.2	41.6	41.1	40.4	39.4	38.4	37.3	36.7	35.9	35.6	35.4	35.1	34.5	34.3	33.8	33.0	32.0
-32	42.4	42.1	41.5	41.0	40.4	39.4	38.3	37.3	36.6	35.9	35.6	35.3	35.0	34.5	34.3	33.7	33.3	32.0
-28	42.3	42.0	41.4	40.9	40.2	39.1	38.3	37.3	36.6	36.0	35.5	35.2	35.0	34.5	34.4	33.8	33.5	32.0
-22	42.3	41.9	41.3	40.8	40.1	39.0	38.3	37.3	36.7	36.0	35.5	35.2	35.0	34.6	34.2	33.6	33.4	31.9
-18	42.2	41.8	41.3	40.8	40.2	39.1	38.3	37.5	36.8	36.1	35.6	35.3	35.0	34.5	34.2	33.4	33.0	31.9
-12	42.2	41.9	41.3	40.9	40.3	39.3	38.3	37.6	36.9	36.2	35.8	35.4	35.2	34.7	34.3	33.3	33.0	32.0
-8	42.2	42.0	41.4	40.9	40.3	39.3	38.3	37.4	36.9	36.3	35.8	35.3	35.2	34.5	34.1	33.4	33.2	32.1
-2	42.3	42.1	41.4	40.9	40.4	39.3	38.2	37.3	36.9	36.2	35.6	35.4	35.1	34.3	33.9	33.4	32.9	31.8
2	42.3	42.0	41.4	40.8	40.2	39.2	38.1	37.4	36.7	36.2	35.7	35.6	35.1	34.5	34.0	33.4	32.7	31.9
8	42.3	42.0	41.3	40.8	40.1	39.2	38.2	37.4	36.5	36.1	35.6	35.5	35.1	34.8	34.4	33.9	33.3	32.9
12	42.2	42.0	41.4	41.0	40.5	39.7	38.6	37.7	36.7	36.0	35.6	35.4	35.2	34.9	34.4	34.0	33.6	33.2
18	42.1	42.0	41.5	41.2	40.7	39.8	38.9	38.1	37.2	36.0	35.6	35.4	35.1	34.5	34.2	33.9	33.7	32.9
22	42.2	42.0	41.7	41.3	41.0	40.3	39.3	38.4	37.4	36.3	35.8	35.5	34.9	34.4	34.1	33.8	33.7	32.8
28	42.4	42.3	42.0	41.9	41.6	40.8	39.5	38.4	37.2	36.3	35.8	35.4	35.0	34.6	34.2	34.0	33.6	32.8
32	43.8	43.6	42.9	42.9	42.4	41.2	39.5	38.1	36.9	36.2	35.7	35.5	35.1	34.7	34.2	33.9	33.5	32.9
38	44.6	44.5	43.6	43.2	42.8	41.4	39.7	38.1	37.1	36.2	35.7	35.5	35.1	34.7	34.1	33.6	33.7	32.8
42	45.6	45.8	45.3	44.6	43.6	42.2	40.4	38.2	37.3	36.3	35.8	35.4	35.2	34.7	34.1	33.5	33.7	32.9
48	46.0	46.2	45.9	45.0	43.8	42.9	40.4	38.3	37.6	36.7	35.9	35.4	35.3	35.0	34.3	33.4	33.7	33.1
52	46.7	47.2	46.6	45.8	44.6	44.2	40.2	38.4	37.8	36.9	36.1	35.7	35.5	35.0	34.2	33.6	33.7	33.4
58	46.4	47.1	46.7	46.0	45.1	44.8	40.0	38.6	37.7	36.8	36.3	35.8	35.6	35.1	34.6	33.8	33.8	33.2
62	47.9	48.4	47.6	46.5	46.2	45.4	40.2	38.9	37.7	36.9	36.4	36.2	35.7	35.3	34.9	34.2	34.0	33.3
68	49.0	49.3	48.6	47.9	47.5	46.1	41.6	39.2	38.2	37.1	36.5	36.4	35.9	35.2	34.6	34.1	34.1	33.5
72	50.9	50.9	50.3	49.5	48.7	46.7	42.9	39.4	38.7	37.4	36.7	36.5	35.9	35.2	34.4	34.1	34.2	33.2
78	54.6	54.6	52.7	51.7	50.9	48.2	45.8	39.9	39.1	37.6	36.7	36.6	35.9	35.3	34.7	34.0	34.3	33.1
82	56.8	57.2	55.7	54.1	52.7	50.1	45.1	40.2	39.4	37.9	36.9	36.7	36.2	35.6	35.0	34.1	34.3	33.2
88	57.5	58.1	57.8	57.1	56.4	52.9	44.7	40.9	39.7	38.3	37.2	36.8	36.4	35.7	35.0	34.2	34.2	33.4
92	61.1	62.2	61.1	59.9	58.7	55.2	45.9	41.7	40.1	38.8	37.5	37.0	36.7	35.5	34.7	34.2	34.4	33.4
98	69.7	71.4	68.9	65.6	63.6	59.2	50.7	43.1	41.2	39.7	38.2	37.5	37.2	36.6	35.5	34.8	34.5	33.6
102	148.5	140.7	125.1	93.2	75.5	69.9	54.4	47.0	44.8	42.3	40.4	39.5	39.6	39.1	38.1	37.4	36.1	34.3
108	380.5	404.7	379.1	332.0	303.8	229.6	174.9	86.6	69.5	60.9	55.9	53.5	57.5	59.6	56.9	57.6	52.4	43.6
112	472.6	488.7	471.1	451.0	439.0	352.7	291.2	197.5	107.7	82.0	70.9	67.2	69.1	72.2	69.4	65.1	60.6	47.3
118	441.4	445.2	411.5	367.9	340.8	304.2	275.6	210.5	132.3	91.5	78.9	78.1	75.4	70.5	62.1	55.8	56.1	48.3
122	414.8	408.1	361.4	316.0	302.7	280.1	257.2	231.0	177.3	103.4	82.7	77.7	72.4	67.7	61.8	53.8	51.8	45.9
128	400.1	401.7	368.5	333.4	318.4	287.5	261.2	243.6	213.2	140.4	83.9	77.5	75.3	64.0	60.8	57.2	53.3	46.8
132	431.6	430.6	397.1	357.0	326.5	294.4	276.2	253.5	225.1	175.3	91.7	78.5	82.3	78.1	63.4	63.8	55.6	46.5
138	419.0	427.7	415.1	387.8	371.5	344.1	313.6	293.7	266.6	235.6	132.3	94.5	90.6	85.0	70.6	71.8	61.2	48.4
142	467.2	476.8	468.9	452.5	436.6	407.7	366.9	352.7	329.2	291.2	219.4	133.4	111.0	92.5	85.9	84.5	69.7	53.4
148	515.7	524.1	508.2	492.2	479.7	445.0	429.2	419.5	393.9	380.2	351.1	244.7	145.4	116.0	101.0	102.0	82.4	59.8
152	549.0	557.9	541.2	514.8	495.2	479.5	455.8	445.6	435.3	418.6	398.2	359.5	259.6	144.2	113.6	112.3	94.2	67.6
158	602.0	610.1	589.7	561.3	545.5	521.0	505.9	504.2	492.7	481.8	471.0	437.2	390.6	280.3	139.7	138.0	102.4	74.1
162	767.0	779.0	774.0	756.0	744.0	698.4	650.9	624.4	593.1	564.0	528.4	496.5	452.8	381.2	223.5	172.6	123.0	81.9
168	844.0	885.0	900.0	894.0	883.0	850.0	805.0	764.0	711.0	649.6	593.0	531.9	482.7	414.8	254.5	214.7	152.7	95.0
172	885.0	913.0	931.0	946.0	947.0	928.0	895.0	864.0	832.0	802.0	727.0	630.9	528.4	438.6	328.5	218.5	179.1	108.2
178	841.0	871.0	889.0	906.0	908.0	895.0	876.0	858.0	838.0	802.0	724.0	612.4	493.0	398.6	301.3	226.5	170.0	92.4
182	843.0	865.0	894.0	911.0	917.0	912.0	909.0	899.0	881.0	848.0	770.0	676.4	572.2	449.4	341.0	277.6	211.5	90.3
188	832.0	862.0	898.0	915.0	919.0	920.0	914.0	905.0	896.0	894.0	840.0	748.0	612.7	464.6	366.7	265.6	207.9	98.1

Temperature measurements (°C), twin beds experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
192	812.0	835.0	856.0	879.0	884.0	889.0	876.0	857.0	828.0	782.0	726.0	661.3	585.2	492.3	399.1	295.4	233.7	102.8
198	785.0	801.0	816.0	831.0	839.0	853.0	844.0	827.0	787.0	745.0	670.5	621.2	563.6	473.9	402.9	308.4	239.9	120.7
202	783.0	797.0	810.0	819.0	825.0	830.0	823.0	810.0	792.0	761.0	687.7	646.2	615.2	537.0	461.8	346.3	265.3	140.5
208	750.0	761.0	769.0	775.0	777.0	785.0	801.0	802.0	791.0	755.0	698.1	672.4	638.7	558.4	459.6	364.8	285.5	138.3
212	742.0	753.0	761.0	767.0	774.0	771.0	760.0	739.0	714.0	691.5	668.4	644.0	605.4	536.8	467.7	351.4	288.9	167.7
218	760.0	769.0	778.0	782.0	783.0	773.0	758.0	735.0	709.0	685.2	667.0	650.0	626.7	562.5	481.3	357.8	300.2	171.6
222	732.0	739.0	748.0	755.0	757.0	756.0	728.0	705.0	679.2	655.1	633.2	614.3	582.9	527.3	460.5	359.1	296.7	178.0
228	742.0	751.0	756.0	763.0	767.0	767.0	746.0	715.0	694.2	675.2	658.9	642.7	621.3	550.0	480.1	389.2	321.8	214.6
232	722.0	730.0	736.0	737.0	737.0	736.0	723.0	694.0	664.9	646.2	629.4	605.2	580.9	531.9	469.5	376.0	324.4	209.3
238	712.0	721.0	727.0	728.0	728.0	723.0	699.6	673.9	661.7	649.3	637.5	625.7	608.0	567.1	513.6	416.9	328.4	239.1
242	705.0	713.0	718.0	720.0	721.0	721.0	703.0	679.0	654.2	638.7	625.9	614.8	597.9	562.5	510.2	408.4	336.3	294.2
248	709.0	716.0	720.0	721.0	718.0	707.0	694.1	668.7	651.7	638.4	625.0	612.9	599.9	568.5	530.6	414.8	354.3	344.0
252	692.6	700.0	704.0	707.0	708.0	714.0	710.0	683.1	656.1	641.0	630.3	620.2	606.3	574.5	522.9	410.6	371.0	484.0
258	703.0	712.0	719.0	722.0	722.0	724.0	728.0	726.0	674.7	653.2	638.3	626.8	611.0	580.7	533.8	443.2	388.9	444.9

Temperature measurements (°C), twin beds experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
-122	35.3	35.2	35.0	34.9	34.8	34.8	34.1	33.9	33.1	31.9	31.3	30.8	30.6	30.1	29.8	29.5	29.0	29.0
-118	35.6	35.4	35.1	35.0	34.9	34.8	33.8	33.5	32.9	31.6	31.2	30.8	30.7	30.0	29.8	29.6	29.2	28.9
-112	35.8	35.5	35.3	35.0	34.9	34.7	33.9	33.5	33.2	32.0	31.5	31.2	30.9	30.3	29.9	29.6	29.3	28.8
-108	35.4	35.3	35.2	34.9	34.8	34.6	34.0	33.8	33.3	32.2	31.7	31.0	30.6	30.2	29.9	29.8	29.5	29.0
-102	35.4	35.2	35.0	34.9	34.8	34.7	34.2	34.0	33.8	33.0	32.2	31.4	31.0	30.6	30.0	29.5	29.1	28.6
-98	35.7	35.6	35.3	35.1	34.9	34.8	34.5	34.3	34.0	33.2	32.8	31.6	31.2	30.9	30.2	29.6	29.0	28.2
-92	35.7	35.7	35.3	35.2	35.0	35.0	34.4	34.3	33.8	32.8	32.3	31.8	31.2	30.5	30.0	29.7	28.6	28.2
-88	35.3	35.2	35.1	35.0	35.0	34.9	34.4	33.9	33.1	32.3	31.8	31.5	30.8	30.3	30.1	29.8	29.4	28.5
-82	35.4	35.4	35.2	35.1	34.9	34.9	34.6	34.3	33.3	32.6	31.7	31.1	30.6	30.2	30.1	29.8	29.4	28.5
-78	35.4	35.2	35.1	35.0	34.9	34.9	34.7	34.6	33.6	32.7	31.5	30.9	30.4	30.1	29.9	29.8	28.9	28.4
-72	35.6	35.4	35.3	35.0	35.0	34.9	34.5	34.4	33.9	32.7	31.5	30.9	30.4	30.1	30.0	29.9	29.1	28.6
-68	35.5	35.4	35.2	35.1	35.0	34.8	34.4	34.3	33.6	32.8	31.6	30.9	30.3	30.1	29.9	29.3	28.9	28.6
-62	35.7	35.5	35.1	35.1	35.0	34.9	34.6	34.3	33.4	32.7	31.9	31.1	30.3	30.0	29.9	29.6	29.2	28.7
-58	35.9	35.7	35.3	35.1	35.0	34.9	34.6	34.4	33.7	32.7	31.9	31.3	30.6	30.1	30.0	29.7	29.5	28.8
-52	36.2	35.7	35.2	35.0	35.0	34.9	34.6	34.0	33.5	32.4	32.0	31.5	30.8	30.3	30.1	30.0	29.6	29.0
-48	36.0	35.8	35.4	35.1	35.0	34.9	34.4	34.0	33.4	32.4	32.0	31.3	30.8	30.5	30.3	30.1	29.5	29.0
-42	35.7	35.5	35.2	34.9	34.9	34.9	34.6	34.3	33.9	32.7	31.9	31.3	30.6	30.6	30.3	29.9	29.3	28.9
-38	35.7	35.5	35.4	35.1	35.0	34.8	34.7	34.4	33.8	32.8	31.7	31.2	30.7	30.6	30.4	30.0	29.5	28.6
-32	35.6	35.7	35.4	35.0	34.9	34.8	34.6	34.5	33.4	32.5	31.5	31.0	30.7	30.5	30.4	30.0	29.5	28.8
-28	35.7	35.7	35.5	35.2	35.0	34.8	34.6	34.4	33.2	32.4	31.7	31.0	30.7	30.5	30.5	30.1	29.4	28.8
-22	35.7	35.7	35.5	35.4	35.1	34.9	34.6	34.3	33.4	32.6	31.9	31.2	30.7	30.6	30.4	30.1	29.7	29.1
-18	35.7	35.6	35.4	35.2	35.0	34.8	34.4	34.2	33.3	32.7	32.1	31.3	31.0	30.5	30.3	30.0	29.6	28.8
-12	35.9	35.8	35.6	35.3	34.9	34.7	34.3	34.1	33.5	32.9	32.4	31.6	31.1	30.6	30.4	30.0	29.4	28.9
-8	35.8	35.7	35.5	35.3	35.0	34.5	34.2	34.1	33.7	33.0	32.4	31.4	31.1	30.6	30.3	29.9	28.9	28.7
-2	35.9	35.6	35.4	35.3	35.0	34.8	34.2	34.1	33.8	33.0	32.1	31.3	31.0	30.5	30.2	30.0	29.3	28.8
2	35.8	35.6	35.4	35.2	35.0	35.0	34.3	34.2	33.8	33.1	32.6	31.3	30.9	30.4	30.1	29.8	29.2	29.0
8	35.9	35.6	35.3	35.1	35.0	34.9	34.3	34.1	33.8	33.2	32.6	31.4	30.9	30.4	30.1	29.8	29.3	29.1
12	36.0	35.5	35.3	35.1	35.0	35.0	34.6	34.0	33.7	33.2	32.6	31.4	31.0	30.5	30.1	29.8	29.4	28.9
18	35.6	35.4	35.2	35.0	34.9	35.0	34.8	34.1	33.7	33.1	32.4	31.4	31.1	30.4	30.2	29.8	29.5	29.0
22	35.7	35.5	35.2	35.0	34.9	34.9	34.8	34.3	33.7	33.0	32.3	31.5	31.2	30.6	30.2	29.9	29.5	28.6
28	35.7	35.4	35.1	35.1	35.0	35.0	34.7	34.3	33.5	32.8	32.1	31.6	31.2	30.8	30.2	29.9	29.6	28.5
32	36.1	35.7	35.1	35.0	35.0	34.9	34.7	34.4	33.8	33.0	32.2	31.6	31.3	30.6	30.2	30.0	29.6	28.7
38	35.6	35.4	35.2	35.0	34.9	34.9	34.7	34.4	33.9	33.0	32.4	31.6	31.3	30.5	30.2	30.0	29.3	28.5
42	35.7	35.5	35.2	35.0	34.9	34.9	34.7	34.5	33.5	32.8	32.1	31.5	30.7	30.4	30.1	29.9	29.4	28.6
48	35.9	35.8	35.3	35.1	34.9	34.8	34.6	34.5	33.6	33.0	32.6	31.7	30.7	30.3	30.1	29.8	29.4	28.6
52	35.7	35.6	35.2	35.0	34.9	34.9	34.5	34.4	33.6	33.0	32.6	31.8	31.0	30.4	30.1	29.7	29.2	28.8
58	36.0	35.8	35.3	35.1	35.0	34.8	34.4	33.9	32.8	32.7	33.0	32.4	31.1	31.0	30.7	30.1	29.5	28.9
62	35.9	35.7	35.5	35.3	35.1	35.0	34.5	34.1	33.7	33.1	33.4	32.2	30.7	30.6	30.4	29.8	29.3	28.9
68	36.2	36.0	35.7	35.5	35.2	35.0	34.4	34.3	33.9	33.3	33.0	31.7	30.6	30.1	30.0	29.5	29.0	28.8
72	35.9	35.8	35.6	35.3	35.1	34.8	34.5	34.3	33.7	33.0	32.3	31.4	30.7	30.2	29.9	29.5	29.1	28.8
78	35.7	35.6	35.4	35.2	35.1	34.8	34.5	34.4	33.6	33.0	32.5	31.4	30.8	30.5	30.2	29.7	29.3	28.8
82	35.7	35.8	35.6	35.2	35.0	34.7	34.5	34.4	33.7	33.0	32.0	31.4	31.1	30.9	30.9	30.5	29.6	28.9
88	35.8	35.8	35.8	35.7	35.5	35.3	34.6	34.3	33.5	32.7	31.7	31.4	31.1	30.9	30.8	30.4	29.5	29.1
92	35.6	35.6	35.5	35.4	35.1	35.0	34.3	33.8	33.1	32.3	31.7	31.2	30.9	30.8	30.5	30.0	29.4	28.6
98	36.0	36.0	35.9	35.8	35.5	34.8	34.2	33.8	33.2	32.6	32.0	31.2	30.9	31.0	30.6	30.0	29.5	28.8
102	36.9	36.6	36.4	36.1	35.6	34.9	34.4	33.9	33.5	33.0	32.5	31.8	31.3	31.1	30.8	30.3	29.3	28.8
108	37.4	36.9	36.1	35.8	35.6	34.9	34.4	34.0	33.5	33.1	32.9	32.1	31.4	30.7	30.5	29.9	29.1	29.1
112	36.8	36.5	36.0	35.8	35.6	35.2	34.6	34.2	33.6	33.4	32.9	32.2	31.7	30.8	30.6	29.9	29.2	29.1
118	36.2	35.9	35.9	35.5	35.5	35.3	34.8	34.3	33.9	33.4	33.0	32.1	31.7	31.3	30.7	30.2	29.5	29.3
122	54.9	50.8	42.7	37.5	35.9	35.3	35.0	34.5	33.9	33.6	33.1	32.5	32.0	31.8	30.9	30.4	29.8	29.4
128	66.3	62.9	52.3	40.3	37.0	35.5	35.0	34.4	33.9	32.9	32.7	32.2	31.5	31.0	30.5	30.0	29.3	29.0
132	70.0	67.9	60.9	49.1	41.2	36.0	35.5	35.3	34.6	33.8	32.6	31.8	31.5	30.9	30.5	29.7	29.2	29.2
138	79.4	75.7	67.6	54.5	46.9	44.6	41.3	39.0	35.4	34.2	33.8	32.7	31.8	30.9	30.3	29.6	29.4	29.4
142	83.3	81.7	75.0	64.1	56.9	52.5	48.1	40.2	35.5	34.4	34.0	32.7	31.4	30.8	30.5	29.8	29.6	29.4
148	100.9	97.5	89.0	79.4	72.3	68.1	56.1	44.2	35.9	34.8	34.4	33.4	31.7	31.0	30.6	29.9	29.7	29.5
152	115.0	113.8	112.4	104.0	95.9	73.5	64.7	55.1	37.6	35.0	34.4	34.1	31.9	30.9	30.5	30.2	30.2	29.7
158	125.1	124.3	120.5	112.1	100.0	89.4	77.3	64.3	41.7	38.6	37.0	36.0	34.4	32.3	31.5	30.8	30.5	30.1
162	134.6	134.0	124.9	120.9	113.1	107.6	95.5	87.6	55.5	44.4	38.3	37.1	35.7	33.2	32.2	31.6	30.8	30.6
168	160.4	157.5	148.6	139.0	127.9	116.3	107.3	94.4	65.9	51.8	44.1	39.3	35.9	34.2	33.4	32.9	31.6	31.7
172	157.7	159.6	154.3	147.2	140.3	124.8	115.5	98.0	77.6	59.9	49.0	41.7	36.9	35.1	34.5	33.6	33.6	32.2
178	171.6	172.6	166.5	159.8	148.2	133.9	124.7	102.3	88.3	74.8	59.1	47.1	38.2	36.1	35.1	34.7	33.6	32.6
182	167.1	167.3	165.6	161.8	155.8	141.7	129.9	116.1	99.8	83.1	64.0	50.6	39.3	37.4	36.0	35.9	33.8	32.9

Temperature measurements (°C), twin beds experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
188	176.7	178.5	177.7	169.3	165.0	148.8	135.9	124.0	104.2	89.2	77.2	53.8	40.9	39.2	37.7	37.2	34.4	33.4
192	173.0	176.1	173.4	167.4	164.2	155.2	138.4	127.0	105.1	94.2	80.6	58.6	41.5	40.1	38.8	38.4	35.6	34.0
198	168.7	171.9	171.9	170.1	168.5	162.3	147.1	130.8	115.2	100.8	92.7	68.1	44.2	40.9	39.1	39.2	35.3	33.9
202	182.2	183.5	182.0	175.0	166.7	157.6	149.2	139.1	117.2	102.8	95.2	70.2	49.8	41.9	39.3	38.2	35.6	33.5
208	189.5	191.9	191.6	187.7	181.7	162.4	150.2	137.0	116.3	107.1	99.9	77.7	50.6	42.2	39.6	38.5	35.5	33.7
212	193.2	195.3	192.3	186.5	180.0	168.1	149.7	134.5	121.3	110.7	103.1	81.9	54.9	43.2	39.4	38.3	35.9	34.1
218	190.4	193.6	193.6	191.3	182.2	166.5	153.1	140.9	124.5	113.5	103.2	82.2	59.4	43.0	39.5	38.0	35.2	32.6
222	198.9	203.2	199.3	194.2	185.4	164.7	154.2	141.5	126.6	114.8	103.0	86.5	62.9	43.6	40.2	38.6	35.0	33.1
228	192.4	195.2	195.6	193.8	187.2	168.9	158.2	149.5	128.3	116.9	106.0	93.8	63.8	47.4	41.4	38.9	35.5	34.1
232	194.0	194.1	193.1	188.3	182.7	171.2	158.5	146.6	129.9	117.7	106.6	94.2	73.6	47.7	40.7	39.3	36.4	35.3
238	190.9	193.7	195.7	192.7	189.2	178.8	165.3	149.8	133.6	120.0	107.7	93.6	75.9	43.6	38.5	38.5	35.6	34.7
242	203.1	205.4	207.3	201.1	198.3	179.1	164.9	147.5	135.8	123.3	115.9	96.4	79.3	47.5	40.8	39.5	36.9	35.8
248	202.4	205.7	209.5	204.3	197.9	181.4	165.6	147.0	135.8	126.2	113.2	96.7	79.0	50.3	40.8	38.8	36.4	34.3
252	204.8	208.4	207.9	204.8	198.3	186.4	171.6	156.8	146.6	131.0	115.7	101.1	79.4	51.8	42.0	39.2	37.7	35.1
258	214.3	215.9	212.5	202.3	195.5	186.3	172.4	157.4	142.7	133.2	118.1	102.2	78.9	54.7	43.5	39.9	37.5	36.8

Temperature measurements (°C), twin beds experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
-122	38.5	39.3	39.2	38.9	38.5	38.1	37.5	36.8	35.7	35.2	34.3	33.8	33.4	32.3	31.4	31.1	31.1	30.6
-118	38.6	39.2	39.1	38.9	38.7	38.0	37.5	36.6	35.6	35.3	34.3	33.8	33.4	32.3	31.5	31.1	31.1	30.8
-112	38.6	39.4	39.6	39.4	39.0	38.5	37.9	36.6	35.8	35.3	34.2	33.7	33.3	32.2	31.4	31.2	31.1	30.7
-108	38.5	39.3	39.5	39.2	38.9	38.7	38.3	36.7	35.8	35.2	34.3	33.7	33.3	32.0	31.3	31.2	31.2	30.8
-102	38.5	39.1	39.3	39.1	38.8	38.6	37.7	36.5	35.7	35.2	34.4	33.7	33.2	32.1	31.4	31.2	31.1	30.8
-98	38.4	39.1	39.4	39.3	39.0	38.7	38.2	36.6	35.7	35.2	34.3	33.7	33.2	32.2	31.5	31.2	31.1	30.7
-92	38.4	39.1	39.4	39.5	39.3	38.9	38.6	37.1	35.8	35.2	34.4	33.8	33.1	32.1	31.5	31.3	31.2	30.7
-88	38.5	39.3	39.6	39.2	38.7	38.5	38.4	37.4	36.1	35.2	34.5	33.8	33.1	32.1	31.5	31.3	31.2	30.6
-82	38.4	39.0	39.1	38.9	38.3	37.9	37.6	37.2	35.9	35.1	34.4	33.6	32.8	31.8	31.4	31.4	31.1	30.6
-78	38.4	38.9	38.7	38.6	38.3	38.0	37.5	36.7	35.7	34.8	34.4	33.5	32.8	31.9	31.5	31.2	31.2	30.6
-72	38.4	38.8	38.8	38.9	38.8	38.7	38.1	37.3	35.7	35.0	34.5	33.5	32.8	32.1	31.6	31.3	31.3	30.5
-68	38.5	38.8	38.7	38.8	38.8	38.7	38.3	37.9	36.4	35.3	34.7	33.7	33.0	32.1	31.5	31.3	31.2	30.5
-62	38.5	38.9	39.0	38.9	38.7	38.6	38.3	37.8	36.8	35.5	34.7	33.6	32.9	32.3	31.5	31.3	31.2	30.6
-58	38.6	39.1	39.0	38.8	38.6	38.6	38.4	37.5	36.8	35.5	34.4	33.5	32.7	32.0	31.5	31.3	31.1	30.7
-52	38.5	39.3	39.1	38.8	38.4	38.5	38.1	37.3	36.7	35.4	34.2	33.6	32.7	32.1	31.5	31.3	31.2	30.8
-48	38.5	39.2	39.1	38.9	38.5	38.4	37.8	37.0	36.6	35.6	34.3	33.4	32.6	32.1	31.5	31.2	31.1	30.8
-42	38.5	39.2	39.2	39.1	38.7	38.3	38.0	36.8	36.5	35.4	34.8	33.2	32.7	32.0	31.3	31.1	31.2	30.6
-38	38.4	39.2	39.3	39.1	38.8	38.4	38.2	36.9	36.2	35.2	34.6	33.3	32.7	32.3	31.5	31.1	31.2	30.8
-32	38.6	39.0	39.1	39.0	38.7	38.5	37.9	36.7	36.1	35.4	34.6	33.6	32.6	32.3	31.6	31.2	31.2	30.7
-28	38.4	39.0	38.9	38.8	38.6	38.4	37.6	36.7	36.1	35.5	34.7	33.6	33.0	32.3	31.6	31.2	31.3	30.7
-22	38.3	38.8	38.8	38.7	38.6	38.1	37.4	36.8	36.1	35.5	34.7	33.7	33.1	32.3	31.5	31.2	31.2	30.6
-18	38.3	38.8	38.8	38.8	38.6	38.2	37.4	36.9	36.0	35.4	34.6	33.8	33.4	32.1	31.4	31.0	31.2	30.6
-12	38.3	39.0	39.2	39.1	39.0	38.4	37.4	36.9	35.9	35.2	34.6	34.0	33.6	32.2	31.4	31.1	31.2	30.6
-8	38.3	38.9	39.0	38.9	38.6	38.1	37.4	36.8	35.7	35.1	34.7	34.0	33.6	32.2	31.5	31.2	31.0	30.8
-2	38.4	38.9	39.0	38.7	38.5	38.1	37.3	36.6	35.6	35.0	34.7	34.1	33.5	32.3	31.5	31.2	31.0	30.7
2	38.3	38.7	38.7	38.5	38.3	38.0	37.3	36.7	35.5	35.1	34.7	34.2	33.3	32.4	31.4	31.1	31.1	30.6
8	38.3	38.8	38.7	38.5	38.3	38.0	37.2	36.6	35.6	35.2	34.7	34.0	33.3	32.2	31.3	31.0	30.9	30.7
12	38.3	38.9	38.9	38.7	38.3	38.0	37.4	36.8	35.5	35.2	34.6	34.0	33.5	32.3	31.4	31.1	31.0	30.6
18	38.2	38.9	39.1	39.0	38.6	38.1	37.5	36.9	35.7	35.2	34.6	34.1	33.6	32.4	31.6	31.2	31.1	30.5
22	38.2	39.0	39.3	39.3	39.1	38.4	37.9	37.0	35.8	35.2	34.7	34.2	33.9	32.3	31.5	31.2	31.0	30.5
28	38.5	39.5	39.7	39.5	39.1	38.4	38.2	37.2	36.0	35.2	34.7	34.2	33.6	32.2	31.4	31.2	31.0	30.5
32	38.5	39.6	39.7	39.5	39.1	38.5	38.2	37.3	36.1	35.3	34.8	34.1	33.6	32.1	31.4	31.1	30.9	30.6
38	38.7	39.6	39.8	39.4	39.0	38.5	38.4	38.1	36.3	35.3	34.7	34.0	33.6	32.3	31.3	31.1	30.9	30.5
42	39.0	40.0	39.5	39.3	39.0	38.6	38.3	38.1	36.2	35.3	34.8	34.0	33.4	32.3	31.3	30.7	30.7	30.6
48	39.3	40.1	39.5	39.2	39.0	38.9	38.4	37.9	36.2	35.3	34.9	33.9	33.3	32.2	31.4	30.9	30.7	30.6
52	39.4	40.6	39.7	39.4	39.0	38.7	38.3	37.8	36.1	35.3	34.9	33.8	33.1	32.3	31.5	31.0	30.7	30.5
58	39.7	40.8	40.1	39.9	39.5	39.0	38.3	37.6	36.1	35.5	34.9	33.8	32.9	32.0	31.3	30.9	30.8	30.6
62	40.1	41.5	41.1	40.6	39.5	39.2	38.3	37.7	36.2	35.7	35.1	33.9	33.0	32.2	31.3	30.9	30.6	30.5
68	40.8	42.0	41.9	41.3	40.3	39.3	38.7	37.9	36.4	35.9	34.9	33.9	33.1	32.2	31.2	30.9	30.7	30.4
72	41.1	42.5	41.9	40.9	40.2	39.8	39.0	38.1	36.6	35.9	34.6	33.9	33.0	32.2	31.2	30.9	30.8	30.2
78	41.1	42.9	42.3	41.4	40.3	39.8	39.4	38.4	36.7	35.8	34.6	34.0	33.1	32.4	31.3	30.9	30.8	30.3
82	41.4	43.5	43.3	42.5	41.5	40.2	39.7	38.7	36.5	35.9	34.8	33.9	32.9	32.4	31.3	30.9	30.8	30.3
88	42.1	44.0	43.8	42.8	41.5	41.0	40.2	38.7	36.4	36.0	34.9	33.9	33.2	32.3	31.2	31.0	30.8	30.3
92	43.3	44.7	44.0	42.8	41.7	41.3	40.8	39.2	36.4	35.9	35.2	34.0	33.1	32.3	31.5	31.1	30.9	30.5
98	44.4	47.0	46.1	44.7	43.3	41.7	41.3	39.3	36.6	35.9	34.9	33.9	33.0	32.3	31.5	31.0	30.9	30.4
102	46.4	49.4	48.5	47.0	45.3	42.6	42.0	40.0	37.1	36.1	35.0	34.0	33.2	32.3	31.5	31.1	31.0	30.6
108	72.3	82.3	78.2	65.8	55.2	46.4	44.0	43.0	40.4	37.9	36.4	34.8	34.4	32.9	32.1	31.6	31.2	30.8
112	133.7	153.0	154.0	139.2	107.0	76.6	61.9	52.3	44.7	43.6	39.5	36.8	36.1	33.9	33.0	32.1	31.4	30.9
118	153.5	178.1	169.9	155.5	140.3	119.4	100.8	81.1	49.9	45.6	39.6	36.6	35.9	34.2	33.4	32.5	31.9	31.0
122	165.1	182.1	175.8	166.9	159.2	145.4	133.3	107.4	57.6	42.4	38.6	36.8	35.8	34.5	33.4	32.9	32.5	31.6
128	164.0	187.0	180.9	173.6	167.1	157.5	147.4	129.9	67.6	43.0	38.6	36.5	35.3	34.4	33.7	33.2	32.9	31.9
132	178.7	201.1	199.8	191.6	182.2	173.0	158.1	133.3	77.4	49.8	39.9	37.5	36.7	35.6	33.9	33.4	33.3	32.3
138	204.3	237.6	234.2	213.9	193.7	180.1	173.0	162.3	119.0	94.2	45.5	39.0	37.8	35.8	34.2	33.8	33.7	32.7
142	235.9	265.7	260.1	245.4	230.9	211.0	201.7	191.4	143.3	109.9	58.5	44.4	39.4	36.2	34.6	34.4	34.0	32.9
148	262.2	301.1	297.5	285.2	268.5	247.2	234.0	233.7	189.1	163.2	115.8	66.7	53.7	37.9	35.7	35.6	35.2	33.4
152	278.4	328.3	334.6	321.0	298.3	271.4	256.5	244.0	213.4	193.3	146.3	105.2	84.2	46.5	39.9	37.5	36.3	34.3
158	320.6	358.6	354.5	342.0	326.2	307.3	284.2	259.3	243.4	244.3	204.1	149.5	115.2	59.9	43.8	38.8	37.3	34.7
162	316.7	364.4	379.3	378.8	372.8	349.9	327.9	323.8	276.3	277.2	252.7	238.3	189.2	133.5	71.8	49.1	42.4	35.9
168	331.6	377.0	369.9	361.7	350.2	336.6	320.0	308.7	278.6	259.8	229.5	190.8	164.0	107.4	81.6	55.2	43.9	37.1
172	344.4	391.7	403.1	396.5	379.9	355.1	330.2	309.0	281.4	240.0	220.1	199.1	189.0	111.4	83.9	56.5	47.2	38.8
178	365.3	412.3	412.8	393.3	371.5	346.1	330.3	318.1	285.6	253.5	230.7	202.3	188.0	136.2	91.2	54.1	48.1	39.9
182	363.8	412.7	418.9	414.3	404.8	369.3	342.9	318.8	296.6	277.1	237.5	206.2	186.6	144.2	105.9	58.4	49.9	40.9
188	362.2	408.5	418.7	417.4	411.3	395.5	379.1	358.9	315.7	283.6	240.8	220.2	196.8	151.1	105.9	69.1	50.7	41.7

Temperature measurements (°C), twin beds experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
192	365.1	402.4	403.5	400.0	385.5	359.2	351.0	340.2	304.7	277.5	245.6	210.8	206.4	160.1	105.7	74.4	53.7	42.0
198	381.5	423.5	432.9	426.0	414.8	386.8	356.0	318.7	287.5	262.6	245.4	226.1	204.3	154.8	113.9	71.0	55.3	46.6
202	382.7	424.0	416.2	398.3	378.6	364.7	349.7	328.8	307.0	286.4	260.1	221.5	196.9	134.5	89.9	67.8	57.0	47.5
208	364.9	401.5	402.4	397.8	391.4	379.7	365.0	343.5	323.7	295.0	263.7	239.4	218.5	146.7	85.3	63.5	55.8	47.9
212	374.5	417.3	430.1	426.0	415.9	396.5	361.9	331.0	318.5	299.5	282.2	254.2	230.9	153.4	92.4	65.4	57.4	48.1
218	376.8	414.2	423.4	417.9	404.8	379.9	364.1	357.8	323.5	317.3	297.5	253.0	227.5	170.8	118.0	70.0	59.0	49.7
222	382.9	416.8	423.8	414.4	400.5	367.1	346.1	339.5	313.0	289.2	257.4	230.9	199.9	150.7	94.2	67.9	57.8	51.4
228	389.0	422.2	427.0	422.3	410.8	382.0	350.7	329.9	307.5	289.8	273.3	243.1	238.0	164.1	94.5	65.2	57.7	49.6
232	389.0	420.9	428.6	422.8	409.8	383.6	371.4	355.2	332.3	313.5	289.9	268.3	242.6	168.4	98.1	69.4	60.8	50.2
238	386.7	421.4	430.9	426.0	414.8	385.3	358.0	342.8	331.5	318.8	278.3	245.2	226.9	169.0	98.1	67.1	59.7	52.4
242	390.8	426.7	436.1	430.9	416.3	395.1	379.5	359.3	334.7	315.9	275.4	247.2	224.0	170.1	89.5	70.5	61.7	49.9
248	391.4	422.5	427.0	418.0	400.4	374.2	362.9	348.1	319.7	304.2	270.7	241.4	227.4	167.5	101.2	71.1	60.2	50.1
252	392.4	426.2	433.4	427.6	418.4	395.9	377.2	366.3	331.4	308.3	291.7	274.0	253.9	178.3	101.3	69.1	60.4	49.4
258	387.6	418.5	417.7	411.2	403.3	383.4	374.3	355.0	324.3	304.7	285.1	252.3	230.6	168.9	96.8	71.4	63.5	52.6

Temperature measurements (°C), overcrowded experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
-125	27.3	27.2	27.0	27.0	26.9	26.7	26.7	26.5	26.3	26.1	25.9	25.7	25.7	25.4	25.4	25.2	25.1	25.1
-119	27.3	27.2	27.0	27.0	27.0	26.7	26.7	26.5	26.3	26.1	25.9	25.7	25.7	25.5	25.4	25.2	25.1	25.0
-115	27.3	27.2	27.0	27.0	26.9	26.7	26.6	26.4	26.3	26.0	25.9	25.7	25.7	25.4	25.4	25.2	25.2	25.0
-109	27.2	27.1	26.9	27.0	26.9	26.7	26.5	26.4	26.2	26.0	25.8	25.7	25.7	25.5	25.4	25.3	25.2	25.0
-105	27.3	27.1	27.0	27.0	27.0	26.7	26.5	26.4	26.2	26.0	25.9	25.7	25.7	25.4	25.4	25.3	25.2	25.0
-99	27.3	27.1	27.0	27.0	26.9	26.7	26.5	26.4	26.2	25.9	25.8	25.6	25.7	25.4	25.4	25.2	25.2	24.9
-95	27.3	27.1	27.0	27.0	26.9	26.6	26.5	26.4	26.2	26.0	25.8	25.6	25.7	25.4	25.4	25.3	25.2	24.9
-89	27.3	27.1	26.9	27.0	26.9	26.7	26.5	26.4	26.2	25.9	25.8	25.6	25.6	25.4	25.3	25.2	25.1	24.9
-85	27.3	27.1	26.9	26.9	26.9	26.6	26.5	26.4	26.1	25.9	25.8	25.6	25.6	25.3	25.3	25.1	25.1	24.9
-79	27.3	27.1	26.9	26.9	26.9	26.7	26.5	26.4	26.1	25.9	25.8	25.6	25.6	25.3	25.3	25.1	25.1	24.9
-75	27.3	27.1	26.9	26.9	26.8	26.6	26.5	26.3	26.1	25.8	25.7	25.6	25.6	25.4	25.2	25.1	25.1	24.9
-69	27.3	27.1	26.9	26.9	26.9	26.7	26.5	26.3	26.1	25.8	25.8	25.6	25.6	25.4	25.2	25.1	25.2	24.9
-65	27.2	27.1	26.9	26.9	26.9	26.7	26.5	26.4	26.1	25.9	25.8	25.6	25.6	25.4	25.2	25.1	25.1	25.0
-59	27.3	27.2	26.9	26.9	26.9	26.7	26.5	26.4	26.1	25.8	25.8	25.6	25.6	25.4	25.2	25.1	25.1	25.0
-55	27.3	27.1	26.9	26.9	26.9	26.7	26.5	26.3	26.1	25.8	25.7	25.6	25.6	25.3	25.2	25.0	25.0	24.9
-49	27.3	27.1	26.9	26.9	26.8	26.6	26.5	26.3	26.1	25.8	25.7	25.6	25.6	25.3	25.2	25.0	25.0	24.9
-45	27.3	27.1	26.9	26.8	27.1	26.4	26.6	26.0	26.4	26.3	25.9	25.9	25.8	25.4	25.2	25.3	25.6	25.3
-39	27.3	27.1	26.9	26.9	26.7	26.4	26.4	26.3	26.1	26.2	26.1	25.8	25.7	25.4	25.3	25.4	25.5	25.4
-35	27.3	27.1	26.8	26.9	26.7	26.4	26.4	26.3	26.2	26.1	26.1	25.8	25.7	25.6	25.5	25.6	25.6	25.3
-29	27.3	27.1	26.9	26.9	26.8	26.4	26.4	26.3	26.2	26.1	25.9	25.7	25.7	25.6	25.5	25.6	25.6	25.4
-25	27.3	27.2	26.9	26.9	26.8	26.4	26.4	26.3	26.2	25.9	25.8	25.6	25.7	25.6	25.5	25.4	25.5	25.3
-19	27.2	27.1	26.9	26.9	26.9	26.5	26.4	26.3	26.2	25.9	25.7	25.6	25.6	25.5	25.6	25.5	25.4	25.2
-15	27.2	27.2	26.9	27.0	26.9	26.5	26.4	26.3	26.1	26.0	25.8	25.6	25.8	25.6	25.6	25.6	25.4	25.3
-9	27.3	27.1	26.9	26.9	26.9	26.5	26.3	26.2	26.2	26.0	25.8	25.7	25.8	25.6	25.6	25.4	25.4	25.2
-5	27.3	27.1	26.9	26.9	26.9	26.5	26.4	26.2	26.1	26.1	25.9	25.8	25.8	25.9	26.0	25.5	25.8	25.6
1	27.3	27.2	27.0	26.9	26.9	26.6	26.4	26.4	26.3	26.3	26.2	25.9	26.1	25.9	25.8	25.5	25.7	25.5
5	27.3	27.2	27.1	27.1	27.0	26.7	26.5	26.4	26.3	26.2	26.1	25.9	26.0	25.8	25.6	25.4	25.5	25.2
11	27.4	27.3	27.2	27.2	27.0	26.7	26.5	26.3	26.2	26.2	26.1	25.9	25.9	25.7	25.6	25.3	25.4	25.1
15	27.6	27.7	27.5	27.3	27.1	26.8	26.6	26.4	26.3	26.3	26.1	25.9	25.9	25.7	25.6	25.3	25.3	25.2
21	28.7	28.7	28.0	27.6	27.3	26.9	26.6	26.7	26.5	26.4	26.2	25.9	26.0	25.8	25.6	25.4	25.4	25.2
25	29.5	29.7	28.6	27.8	27.4	27.0	26.7	26.7	26.6	26.5	26.3	26.1	26.0	25.9	25.7	25.4	25.4	25.2
31	30.8	30.9	29.7	28.5	28.2	27.6	26.9	26.9	26.8	26.7	26.4	26.2	26.1	25.9	25.7	25.5	25.5	25.3
35	31.5	31.7	30.5	29.0	28.9	28.3	27.4	27.6	27.1	26.9	26.5	26.2	26.1	25.9	25.7	25.5	25.5	25.2
41	31.2	31.8	31.1	29.7	29.8	29.1	28.1	27.8	27.1	26.8	26.4	26.2	26.0	25.8	25.7	25.6	25.6	25.2
45	31.6	32.6	32.0	30.3	30.5	29.6	28.4	27.5	26.9	26.5	26.3	26.1	26.0	25.8	25.7	25.6	25.6	25.2
51	31.9	32.3	31.6	30.3	30.7	29.9	28.3	27.4	26.8	26.5	26.3	26.1	25.9	25.8	25.8	25.5	25.6	25.3
55	31.7	32.4	32.0	30.8	31.2	30.5	28.7	27.3	26.8	26.6	26.3	26.1	26.0	25.8	25.8	25.6	25.6	25.3
61	32.0	32.7	32.0	31.3	31.4	30.8	29.3	27.4	26.9	26.7	26.4	26.1	26.1	25.9	25.8	25.5	25.6	25.3
65	33.5	34.4	33.1	31.4	31.8	31.3	30.2	28.3	27.0	26.7	26.4	26.2	26.1	25.9	25.8	25.5	25.6	25.3
71	34.6	35.1	34.2	31.9	32.1	31.8	30.7	28.2	27.0	26.7	26.5	26.2	26.2	26.0	25.9	25.7	25.7	25.3
75	34.6	35.2	34.5	32.6	33.0	32.3	31.1	27.8	27.0	26.6	26.5	26.3	26.2	26.1	25.9	25.7	25.7	25.3
81	35.4	35.7	35.3	34.1	34.3	33.3	31.5	27.6	27.0	26.8	26.6	26.3	26.3	26.2	26.0	25.8	25.7	25.4
85	35.5	35.7	35.4	34.1	34.8	34.2	32.3	28.2	27.1	27.0	26.6	26.4	26.4	26.2	26.0	25.8	25.7	25.5
91	35.7	35.9	35.0	34.6	34.8	34.6	32.3	28.5	27.2	27.1	26.6	26.4	26.4	26.2	26.0	25.8	25.8	25.5
95	36.1	36.3	35.7	34.9	35.1	34.8	33.3	30.6	27.6	27.1	26.8	26.6	26.4	26.2	26.1	25.8	25.8	25.5
101	35.9	37.2	36.8	35.2	35.5	34.7	33.6	29.5	27.6	27.3	26.9	26.6	26.5	26.2	26.0	25.8	25.8	25.5
105	39.4	41.3	40.4	37.2	36.7	35.8	34.4	30.0	27.8	27.4	27.1	26.7	26.5	26.3	26.1	25.8	25.8	25.5
111	42.7	43.9	41.6	38.6	38.5	38.0	35.7	31.8	28.2	27.7	27.3	26.7	26.6	26.4	26.2	25.8	25.8	25.5
115	73.0	74.3	56.2	44.4	42.5	41.4	39.0	34.8	28.9	28.0	27.5	27.0	26.8	26.6	26.4	26.0	26.0	25.7
121	115.0	120.8	96.0	79.7	83.8	75.4	54.6	43.5	33.5	28.9	28.2	27.4	27.2	27.1	26.7	26.3	26.3	25.8
125	130.5	141.3	135.1	120.7	124.0	110.9	80.0	42.5	33.8	30.0	29.0	28.0	27.6	27.5	27.1	26.6	26.7	26.4
131	201.0	211.4	183.7	168.4	169.9	145.7	115.7	52.7	41.2	36.3	34.8	31.4	29.9	28.6	28.0	27.1	27.3	26.9
135	227.5	252.5	240.7	222.3	229.1	200.8	158.2	88.3	52.5	42.6	39.3	35.0	32.6	30.8	30.0	28.6	28.6	28.0
141	303.9	320.8	302.8	277.1	279.9	257.2	203.2	168.9	75.1	56.3	45.2	40.5	36.7	34.6	33.3	30.9	31.6	30.3
145	369.8	396.5	369.0	338.2	326.6	297.6	254.8	257.0	152.1	108.8	83.6	49.3	42.5	38.2	36.8	33.6	34.7	33.0
151	464.3	475.8	434.4	380.6	366.0	348.3	310.2	320.5	264.7	163.6	127.0	76.0	59.4	46.5	42.1	37.8	38.3	36.2
155	488.6	498.9	450.7	422.4	403.9	385.0	354.3	357.5	333.4	248.4	198.6	120.2	79.7	58.2	51.3	41.8	44.5	41.6
161	497.2	521.3	504.9	462.9	442.9	421.5	396.1	398.8	381.0	362.5	317.3	227.0	142.7	86.2	64.6	49.4	52.3	47.9
165	497.7	528.6	534.3	523.5	512.3	471.6	433.3	436.4	417.7	389.4	360.2	299.5	210.2	161.6	88.6	59.8	60.7	51.4
171	479.9	508.7	514.7	504.9	492.2	465.1	441.9	437.3	431.0	420.1	403.1	374.6	286.4	224.0	139.1	75.2	70.3	57.0
175	466.3	496.7	503.9	496.6	483.9	449.7	437.2	434.4	429.8	418.9	398.5	372.5	334.2	254.5	195.0	116.6	76.7	60.9
181	506.8	536.6	541.3	537.0	525.6	503.5	464.9	445.2	435.3	421.8	407.9	389.9	339.1	271.1	222.7	171.3	93.8	66.8
185	515.5	544.5	543.5	536.3	519.3	485.0	463.2	455.2	449.7	436.7	427.7	418.7	393.0	350.5	267.3	216.4	117.6	73.0

Temperature measurements (°C), overcrowded experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
191	515.4	544.9	546.2	538.3	521.2	501.3	483.1	480.9	474.5	465.1	448.7	432.2	408.0	377.1	304.0	224.7	146.0	79.9
195	517.6	544.1	549.0	546.3	534.9	510.1	492.7	484.9	477.3	467.3	454.2	431.5	416.0	383.1	329.5	257.0	180.0	91.6
201	508.4	532.0	532.1	527.6	520.3	508.8	498.6	491.8	480.9	473.0	463.0	450.9	432.6	415.6	360.6	276.5	219.6	111.3
205	496.0	520.0	524.2	525.0	521.7	508.7	497.2	482.0	472.5	465.7	458.4	448.0	434.5	409.3	367.4	296.2	236.4	134.5
211	488.3	506.1	508.8	508.4	506.3	496.6	487.7	481.4	472.8	464.6	453.4	441.6	433.0	411.2	377.2	312.5	245.6	147.3
215	474.6	497.8	504.7	508.5	508.2	500.3	492.1	484.3	475.4	466.5	455.8	448.1	436.5	420.3	392.4	323.6	247.3	150.0
221	472.9	495.0	498.1	500.8	498.2	488.7	483.0	473.1	466.5	461.3	451.6	442.3	428.1	407.7	377.2	322.8	255.3	154.3
225	458.5	480.6	485.3	487.3	484.6	480.3	476.1	469.9	463.0	456.6	449.0	440.2	425.1	405.0	372.3	308.7	259.8	154.0
231	453.8	474.5	477.7	479.9	479.4	479.5	476.3	472.4	465.4	458.0	449.3	437.5	424.3	409.6	379.2	319.1	258.3	160.4
235	448.1	465.1	470.9	474.9	476.8	478.1	476.4	472.4	464.2	458.3	449.4	438.5	423.1	402.0	375.3	315.9	259.8	162.6
241	448.8	469.7	475.9	479.6	480.3	481.7	479.2	475.9	470.1	461.3	452.4	443.5	430.2	401.2	368.1	308.7	260.8	166.6
245	451.4	473.0	477.9	478.6	476.6	476.5	476.7	474.7	469.7	462.8	452.6	439.1	427.0	411.7	379.2	327.8	269.0	170.9
251	465.2	481.8	485.8	486.3	486.2	482.5	477.3	470.1	464.0	458.6	453.1	446.2	431.7	406.8	382.8	334.0	269.1	174.3
255	463.3	484.7	490.9	494.5	494.1	488.8	484.0	479.9	471.5	460.4	452.8	444.6	431.8	409.5	375.4	333.4	272.4	177.4
261	464.2	482.8	487.1	488.6	485.8	485.3	482.3	474.9	469.6	461.5	453.8	446.2	434.6	418.7	382.7	325.5	266.6	178.1
265	470.3	487.3	491.1	491.8	492.2	487.6	484.4	477.8	472.5	465.3	454.4	443.3	421.4	401.7	368.1	314.6	269.3	175.6
271	475.5	492.1	496.9	499.7	498.4	491.3	485.5	478.6	470.2	461.7	451.1	440.5	424.6	396.7	373.6	320.7	274.0	180.5
275	474.2	495.3	500.0	501.3	500.7	496.5	488.1	483.1	475.2	468.2	460.3	450.6	437.9	420.6	397.7	341.8	273.2	179.9
281	483.3	501.2	503.1	504.2	503.2	501.9	492.6	486.9	479.9	472.6	464.1	453.0	440.7	429.3	398.8	339.5	270.9	179.8
285	481.3	501.4	505.6	505.1	502.7	495.7	490.7	487.0	480.7	472.3	462.0	451.3	437.6	420.1	390.6	341.5	277.6	184.8
291	481.2	500.0	503.5	504.6	503.1	498.6	493.5	488.5	483.5	476.9	467.7	457.4	444.7	425.2	395.6	342.6	274.8	186.2
295	480.9	496.8	498.9	499.0	498.0	498.4	494.4	490.4	482.3	471.6	465.3	458.5	437.9	415.2	389.0	341.5	278.4	188.5
301	487.7	504.3	506.8	508.2	507.0	504.1	498.1	492.8	486.5	478.1	470.2	458.8	447.5	427.5	395.6	351.6	281.9	191.7
305	484.3	504.3	506.6	507.3	507.4	507.6	502.5	496.3	488.1	476.7	469.0	460.3	445.6	428.6	401.5	356.0	282.8	194.1
311	490.4	509.3	513.0	513.6	513.0	508.9	504.2	497.9	490.9	481.8	475.0	466.6	454.6	435.6	409.3	364.6	288.5	198.3
315	490.0	508.9	513.0	517.2	518.8	512.9	508.5	503.4	493.9	487.8	477.8	467.2	455.7	440.3	415.5	358.0	289.4	197.2
321	496.8	515.3	518.8	520.4	520.8	517.3	511.5	506.7	499.4	491.2	481.2	470.9	457.6	439.2	407.4	350.6	292.4	198.7
325	498.5	518.8	524.5	524.0	522.4	516.9	511.6	507.6	499.1	491.5	483.4	472.3	458.6	442.2	409.4	342.3	291.0	200.2
331	498.8	517.2	521.9	521.7	520.3	515.3	510.5	502.9	496.0	489.7	482.3	471.3	450.6	423.1	394.4	338.1	290.5	201.2
335	503.1	522.5	527.6	528.8	528.7	523.1	515.6	507.7	500.3	492.8	483.8	473.7	466.5	450.6	423.8	363.9	300.0	206.1
341	504.7	525.1	529.4	532.2	532.0	524.0	516.0	510.4	503.9	494.5	485.0	475.0	459.4	449.1	420.9	355.0	295.0	205.9
345	509.2	527.8	532.5	534.6	534.0	529.6	521.8	517.1	506.4	496.3	486.8	472.9	458.6	439.6	418.8	368.0	289.3	203.5
351	503.2	522.3	528.9	530.1	529.2	525.7	520.1	513.1	506.1	499.7	489.5	480.6	468.6	454.1	426.2	370.1	299.3	206.9
355	508.5	528.2	532.6	534.2	533.1	528.7	523.3	518.7	512.8	505.2	496.0	484.5	470.6	452.2	420.2	363.4	305.2	199.2
361	515.5	533.7	539.3	541.3	541.2	535.3	526.6	520.9	514.2	506.4	496.3	486.6	477.0	459.9	432.2	381.0	306.0	215.1
365	515.4	534.0	540.9	546.5	547.8	541.2	531.5	524.2	517.3	506.7	495.4	486.7	475.7	455.9	413.8	373.3	307.3	209.7
371	518.5	536.9	542.1	544.7	543.2	537.9	531.0	522.0	516.4	506.6	498.0	489.1	477.3	458.9	430.5	374.4	303.3	198.8
375	523.0	540.3	545.2	547.3	547.9	540.0	531.0	524.2	515.1	509.0	501.8	494.0	482.5	462.2	430.1	375.0	307.7	212.6
381	514.9	531.0	537.3	541.7	543.7	540.0	530.4	524.0	518.6	506.9	498.8	488.8	478.7	463.5	431.0	382.5	311.8	217.2
385	529.5	544.9	548.6	549.4	549.9	544.1	536.2	529.4	521.4	514.2	505.4	493.8	480.9	452.6	420.3	371.4	311.3	220.2
391	528.0	548.0	552.5	554.0	555.0	549.0	540.1	533.6	527.4	520.1	510.2	498.6	488.0	466.7	437.1	388.2	320.2	224.8
395	529.2	549.7	552.0	552.8	552.6	548.7	540.0	532.5	527.0	516.5	508.7	498.6	487.4	467.2	440.1	391.9	316.5	219.2
401	527.4	545.4	551.2	553.7	555.2	549.8	542.2	537.0	529.0	517.9	506.4	495.5	484.4	466.1	440.1	372.7	309.9	217.4
405	535.7	555.7	558.6	559.5	560.9	555.5	547.0	539.4	531.4	521.3	514.2	502.8	488.0	473.0	447.8	388.5	319.2	222.4
411	534.7	553.4	557.4	558.9	560.8	556.6	546.7	539.5	532.2	521.4	514.9	504.1	492.0	472.4	444.7	380.2	317.3	222.9
415	539.6	556.8	557.5	556.7	557.7	551.7	542.9	537.3	531.7	524.6	517.1	504.6	489.4	471.3	449.1	380.8	316.6	228.4
421	542.3	561.3	564.9	568.0	568.6	563.1	550.0	544.6	537.7	526.9	515.9	498.7	483.2	466.3	446.3	385.9	323.7	231.8
425	542.7	562.7	568.8	571.6	573.4	568.4	553.8	545.3	537.1	529.4	520.8	506.2	490.2	471.6	448.7	392.3	329.0	242.3
431	553.2	569.1	572.8	573.4	571.9	564.6	556.8	547.1	538.7	528.3	520.8	508.5	492.7	465.4	438.9	379.7	329.9	241.8
435	557.1	574.9	579.5	580.6	581.1	570.7	558.5	547.2	538.7	525.7	514.1	504.2	489.0	471.9	446.3	377.8	333.8	236.8
441	548.7	567.4	574.7	577.5	578.9	570.1	559.6	551.1	542.7	530.8	521.9	510.4	495.9	478.2	455.4	393.2	337.8	240.0
445	557.1	575.6	581.0	582.8	581.3	575.6	563.2	556.4	548.4	536.9	527.2	515.5	505.9	485.9	465.1	403.3	335.7	236.3
451	557.4	576.5	578.3	578.5	579.0	572.1	563.3	555.2	551.7	543.9	530.9	517.7	501.4	480.2	461.2	399.0	334.3	240.9
455	562.0	580.8	587.1	589.1	589.4	581.4	567.7	555.8	550.3	540.7	529.4	516.4	504.6	487.3	464.5	399.8	340.8	244.7
461	557.6	573.9	581.2	583.3	584.5	577.8	567.4	558.2	549.5	539.3	531.8	519.3	507.1	485.6	453.9	393.7	341.3	243.3
465	564.1	582.4	588.9	591.8	591.4	585.6	574.0	560.5	554.1	545.8	537.5	524.5	512.6	487.5	455.6	395.9	343.4	241.4
471	564.4	581.0	586.5	586.7	586.2	580.7	571.9	556.2	549.1	542.1	534.9	522.0	503.8	481.0	457.0	395.6	345.7	242.8
475	568.4	587.2	593.3	596.6	596.5	586.2	576.4	560.2	550.9	540.0	525.0	512.0	497.9	480.7	449.5	390.1	342.5	239.2
481	565.7	583.3	590.9	595.8	596.7	587.4	578.2	561.1	549.0	539.3	530.1	517.6	501.3	475.9	444.9	388.6	339.1	235.0
485	567.4	586.2	591.8	594.7	592.5	584.1	570.9	550.0	541.7	534.9	526.7	514.5	504.0	484.6	449.2	388.0	349.7	251.7
491	565.5	581.2	587.3	591.4	592.4	587.6	575.5	559.7	548.4	541.0	528.3	517.2	501.5	482.4	454.2	392.9	348.7	247.0
495	567.3	583.5	588.0	591.7	592.5	582.8	575.7	560.0	548.8	539.7	529.2	516.0	497.3	481.0	454.2	387.6	346.4	248.7
501	569.8	589.9	595.8	599.9	602.7	595.3	578.1	557.8	549.5	538.8	530.8	520.2	504.8	488.0	458.8	397.4	352.9	249.1

Temperature measurements (°C), overcrowded experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
505	570.1	582.9	587.5	589.0	589.5	586.8	578.9	563.6	549.9	542.2	534.6	520.5	502.3	487.0	463.0	397.9	354.5	251.3
511	561.2	574.9	579.1	581.3	583.5	582.1	581.7	572.3	563.3	552.3	540.3	526.0	510.6	489.0	467.3	419.1	359.1	259.0
515	554.0	569.8	574.1	577.9	578.8	578.2	576.2	566.6	558.8	550.8	541.3	526.5	511.7	488.9	465.9	421.2	361.6	253.2
521	551.9	566.8	569.2	573.4	575.6	576.1	574.7	568.7	560.5	554.7	547.1	526.8	501.7	482.4	459.1	417.9	366.2	259.3
525	552.2	565.0	567.3	569.7	572.5	572.7	571.1	564.5	557.4	552.1	544.6	527.6	514.5	503.7	478.5	440.4	366.9	259.7
531	549.6	564.3	565.8	567.9	569.4	571.5	571.9	566.7	561.2	554.4	548.5	533.6	520.6	507.0	488.9	458.2	391.0	257.2
535	545.2	560.7	563.0	566.3	569.2	569.2	568.4	563.2	559.1	553.7	547.3	534.3	521.5	504.7	490.2	451.0	381.6	270.3
541	543.2	556.8	559.7	563.6	566.6	568.1	569.0	566.2	561.0	555.0	544.8	520.9	500.8	484.7	481.8	438.6	368.8	267.9
545	542.0	554.9	559.7	562.8	563.5	565.1	566.7	563.1	560.1	555.6	548.7	536.0	525.1	508.8	492.3	455.8	376.2	279.0
551	538.7	551.1	554.3	557.7	560.3	562.1	564.0	561.8	558.0	553.1	544.7	530.1	521.2	511.7	496.8	469.2	411.1	306.0
555	535.6	546.5	549.0	551.9	555.8	560.4	561.3	558.9	556.6	553.3	548.4	538.2	526.4	514.3	497.1	461.5	404.7	309.1
561	562.5	585.7	595.8	602.9	608.3	595.6	574.2	569.2	560.6	555.6	547.6	538.3	527.2	510.4	493.5	463.8	421.0	324.5
565	584.5	599.6	600.0	596.0	587.7	575.1	572.6	565.4	561.4	554.4	547.5	540.3	528.5	511.8	493.2	455.0	392.3	301.2
571	596.3	612.2	606.2	596.5	588.7	579.6	572.2	564.4	559.1	552.8	546.8	539.7	531.4	517.1	497.2	453.2	416.7	317.2
575	606.3	623.4	620.0	618.4	606.8	585.6	574.4	566.5	561.9	556.8	550.4	542.7	535.2	526.0	510.6	482.6	444.9	316.3
581	605.2	619.2	616.5	609.4	597.9	586.3	572.5	564.7	558.7	553.0	548.1	540.7	535.3	524.6	504.8	472.0	418.8	301.4
585	612.2	625.7	625.7	624.8	619.3	596.0	574.8	560.3	551.0	544.0	536.2	528.9	517.0	507.2	489.1	446.2	397.3	304.7
591	616.1	631.9	634.1	627.3	615.6	592.2	576.2	564.0	556.2	552.1	544.7	531.7	519.1	503.2	497.3	475.3	404.3	327.0
595	616.1	635.1	637.3	633.4	623.7	594.3	576.1	566.2	558.5	547.9	538.2	529.0	516.3	499.9	483.0	448.4	422.9	329.7
601	623.4	639.3	639.7	635.2	622.1	600.8	583.1	572.7	565.1	556.7	547.9	538.9	530.5	520.0	499.7	465.9	434.2	328.3
605	621.7	636.0	634.8	631.4	618.3	601.2	582.2	571.9	564.7	559.6	556.6	542.3	529.7	517.4	499.3	475.1	430.5	333.1
611	624.4	638.9	636.9	631.5	622.5	600.5	587.9	579.2	572.7	565.9	560.6	552.7	541.3	527.6	505.5	479.7	427.6	332.8
615	627.9	640.4	639.9	635.5	625.7	608.3	594.8	585.0	577.1	571.3	563.4	550.0	539.9	517.7	497.2	467.0	425.0	337.4
621	629.2	642.7	637.2	630.5	622.3	608.0	595.4	585.9	574.0	567.2	560.9	553.9	544.5	531.2	514.2	478.0	426.7	346.7
625	543.4	513.8	498.7	522.0	517.5	509.7	499.5	439.7	475.5	462.5	476.9	491.3	485.9	472.7	445.4	397.4	379.4	311.2
631	405.3	355.7	379.2	435.6	444.8	440.6	444.2	313.6	364.1	392.5	396.4	398.6	394.4	364.8	357.1	329.1	284.6	227.1
635	418.2	371.3	288.2	384.6	398.2	393.8	398.6	89.7	298.8	336.9	323.2	343.0	342.9	312.3	272.7	210.8	195.4	128.9

Temperature measurements (°C), overcrowded experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
-125	25.8	25.7	25.7	25.6	25.5	25.4	25.2	25.0	24.9	24.8	24.7	24.6	24.7	24.7	24.5	24.5	24.6	24.6
-119	25.8	25.7	25.7	25.5	25.5	25.5	25.3	25.1	25.0	24.8	24.7	24.7	24.7	24.7	24.6	24.6	24.6	24.6
-115	25.8	25.7	25.7	25.6	25.6	25.4	25.3	25.2	25.0	24.9	24.8	24.7	24.7	24.7	24.6	24.6	24.6	24.4
-109	25.8	25.8	25.7	25.6	25.6	25.5	25.3	25.2	25.0	24.9	24.8	24.7	24.7	24.7	24.5	24.5	24.4	24.3
-105	25.9	25.8	25.7	25.6	25.6	25.4	25.3	25.1	25.0	24.9	24.8	24.7	24.7	24.6	24.5	24.5	24.4	24.3
-99	25.8	25.7	25.6	25.6	25.5	25.4	25.2	25.1	25.0	24.9	24.8	24.7	24.7	24.7	24.6	24.5	24.5	24.4
-95	25.9	25.7	25.7	25.6	25.5	25.3	25.2	25.2	25.1	25.0	24.9	24.8	24.8	24.7	24.5	24.6	24.5	24.5
-89	25.9	25.7	25.7	25.6	25.5	25.4	25.2	25.2	25.2	25.1	25.0	24.8	24.8	24.6	24.6	24.6	24.5	24.5
-85	25.9	25.7	25.7	25.6	25.6	25.5	25.4	25.3	25.2	25.1	25.0	24.8	24.8	24.7	24.5	24.5	24.5	24.5
-79	25.9	25.7	25.6	25.6	25.6	25.6	25.5	25.4	25.3	25.2	25.1	24.8	24.7	24.6	24.5	24.4	24.4	24.4
-75	25.9	25.8	25.8	25.8	25.7	25.7	25.5	25.4	25.3	25.2	25.2	25.1	24.9	24.7	24.5	24.4	24.4	24.4
-69	25.9	25.8	25.8	25.7	25.7	25.7	25.6	25.4	25.4	25.2	25.1	25.1	24.9	24.8	24.5	24.5	24.4	24.4
-65	26.0	25.8	25.8	25.8	25.7	25.7	25.6	25.5	25.4	25.3	25.2	25.0	24.9	24.7	24.4	24.4	24.4	24.3
-59	25.9	25.8	25.7	25.7	25.7	25.7	25.6	25.5	25.5	25.3	25.3	25.1	25.1	25.1	24.9	24.8	24.6	24.5
-55	25.8	25.8	25.7	25.7	25.7	25.6	25.6	25.6	25.5	25.2	25.3	25.2	25.1	25.1	24.9	24.8	24.8	24.6
-49	25.9	25.9	25.8	25.8	25.7	25.7	25.6	25.6	25.5	25.4	25.3	25.1	24.9	24.9	24.8	24.8	24.7	24.5
-45	25.8	25.8	25.8	25.8	25.8	25.7	25.6	25.5	25.5	25.4	25.3	24.9	25.0	25.0	24.8	24.7	24.6	24.4
-39	25.8	25.8	25.8	25.7	25.7	25.7	25.6	25.6	25.4	25.3	25.2	25.1	25.0	24.9	24.6	24.7	24.5	24.5
-35	25.8	25.8	25.7	25.7	25.7	25.7	25.5	25.4	25.3	25.2	25.2	25.0	25.0	24.9	24.7	24.7	24.6	24.5
-29	25.8	25.8	25.7	25.7	25.6	25.4	25.3	25.2	25.3	25.2	25.3	25.1	25.1	24.9	24.7	24.7	24.6	24.5
-25	25.9	25.8	25.7	25.7	25.6	25.3	25.3	25.2	25.2	25.1	25.1	25.1	25.1	24.8	24.7	24.7	24.5	24.4
-19	26.0	25.8	25.7	25.7	25.6	25.5	25.4	25.3	25.2	25.1	25.1	25.1	25.1	24.9	24.7	24.6	24.4	24.3
-15	26.0	25.8	25.8	25.7	25.6	25.5	25.4	25.4	25.3	25.2	25.2	25.1	25.1	25.0	24.7	24.6	24.4	24.4
-9	25.9	25.8	25.8	25.7	25.7	25.6	25.4	25.4	25.3	25.2	25.2	25.0	25.1	24.9	24.7	24.6	24.5	24.4
-5	25.9	25.8	25.8	25.7	25.7	25.6	25.4	25.3	25.3	25.2	25.2	25.0	24.9	24.9	24.7	24.7	24.4	24.4
1	25.9	25.8	25.8	25.7	25.7	25.6	25.4	25.4	25.3	25.3	25.2	24.9	24.9	24.8	24.7	24.6	24.4	24.4
5	25.9	25.8	25.8	25.7	25.7	25.6	25.4	25.4	25.4	25.3	25.3	25.0	25.0	24.8	24.6	24.5	24.5	24.5
11	25.9	25.8	25.7	25.7	25.6	25.6	25.4	25.4	25.3	25.3	25.3	25.0	24.9	24.7	24.7	24.6	24.6	24.5
15	25.9	25.8	25.7	25.7	25.6	25.5	25.4	25.4	25.4	25.3	25.2	24.9	24.8	24.7	24.6	24.6	24.6	24.4
21	25.9	25.7	25.7	25.7	25.6	25.5	25.4	25.4	25.3	25.3	25.1	24.8	24.8	24.7	24.6	24.6	24.6	24.5
25	25.9	25.8	25.7	25.7	25.6	25.5	25.4	25.4	25.3	25.3	25.1	24.9	24.8	24.7	24.6	24.6	24.5	24.5
31	25.9	25.8	25.7	25.7	25.6	25.5	25.4	25.4	25.3	25.3	25.2	24.9	24.9	24.8	24.7	24.6	24.5	24.4
35	26.0	25.9	25.8	25.7	25.7	25.6	25.5	25.4	25.4	25.3	25.2	24.9	24.9	24.8	24.7	24.6	24.5	24.4
41	26.0	25.9	25.8	25.7	25.7	25.7	25.5	25.4	25.3	25.3	25.2	24.9	24.9	24.8	24.8	24.6	24.5	24.4
45	26.0	25.9	25.8	25.8	25.7	25.6	25.5	25.4	25.4	25.3	25.2	24.9	24.9	24.8	24.7	24.6	24.5	24.4
51	26.0	25.9	25.8	25.8	25.7	25.7	25.6	25.4	25.4	25.2	25.1	25.0	24.9	24.7	24.7	24.6	24.4	24.4
55	26.0	25.9	25.9	25.9	25.8	25.8	25.6	25.5	25.4	25.2	25.1	25.0	24.9	24.7	24.6	24.6	24.4	24.4
61	26.0	25.9	25.8	25.9	25.9	25.8	25.7	25.5	25.3	25.2	25.1	25.0	24.9	24.7	24.7	24.6	24.4	24.3
65	25.9	25.9	25.8	25.9	25.9	25.9	25.7	25.5	25.3	25.2	25.1	25.0	24.9	24.7	24.7	24.6	24.3	24.3
71	25.9	25.9	25.9	25.9	25.9	25.8	25.7	25.5	25.3	25.1	25.1	25.0	24.9	24.7	24.7	24.6	24.4	24.3
75	25.9	25.9	25.9	25.9	25.9	25.8	25.7	25.5	25.2	25.1	25.1	25.0	25.0	24.8	24.7	24.6	24.4	24.3
81	25.9	26.0	25.9	25.9	25.9	25.8	25.7	25.4	25.2	25.1	25.1	25.0	25.0	24.8	24.7	24.6	24.5	24.4
85	25.9	26.0	25.9	25.9	25.9	25.8	25.6	25.5	25.2	25.1	25.1	25.0	24.9	24.8	24.6	24.6	24.4	24.4
91	26.0	26.0	26.0	25.9	25.9	25.8	25.6	25.5	25.3	25.2	25.1	25.0	25.1	24.8	24.7	24.6	24.5	24.4
95	26.0	26.0	26.0	26.0	25.9	25.8	25.7	25.5	25.3	25.2	25.1	25.1	25.1	24.8	24.7	24.6	24.4	24.4
101	26.0	26.0	26.1	26.0	25.9	25.8	25.6	25.6	25.3	25.2	25.1	25.1	25.1	24.8	24.7	24.6	24.5	24.4
105	26.1	26.1	26.0	26.0	25.9	25.9	25.6	25.6	25.3	25.2	25.1	25.1	25.1	24.8	24.7	24.6	24.4	24.4
111	26.2	26.3	26.2	26.0	26.0	25.9	25.8	25.6	25.3	25.2	25.2	25.1	25.1	24.8	24.7	24.6	24.5	24.4
115	26.3	26.3	26.3	26.1	26.0	25.9	25.7	25.6	25.3	25.2	25.1	25.1	25.1	24.9	24.7	24.7	24.5	24.4
121	26.6	26.5	26.4	26.1	26.0	25.9	25.7	25.6	25.4	25.2	25.1	25.2	25.0	24.9	24.7	24.7	24.5	24.4
125	26.8	26.6	26.4	26.1	26.0	25.8	25.7	25.5	25.4	25.2	25.2	25.1	25.0	24.9	24.7	24.7	24.5	24.4
131	26.8	26.5	26.3	26.1	26.0	25.8	25.7	25.5	25.3	25.3	25.2	25.1	25.0	24.9	24.8	24.6	24.5	24.4
135	26.6	26.5	26.3	26.2	26.0	25.8	25.6	25.4	25.3	25.3	25.3	25.1	25.1	24.8	24.8	24.6	24.6	24.4
141	35.1	32.0	29.2	26.5	26.1	25.9	25.7	25.5	25.4	25.3	25.3	25.2	25.1	24.9	24.8	24.7	24.6	24.4
145	49.6	41.9	35.8	27.8	26.3	26.1	25.8	25.6	25.5	25.4	25.4	25.3	25.1	25.0	24.9	24.8	24.7	24.5
151	61.4	54.8	45.9	36.1	28.8	26.4	26.0	25.7	25.6	25.5	25.4	25.3	25.2	25.0	24.9	24.8	24.8	24.6
155	75.0	69.2	62.6	49.6	40.8	28.6	27.6	29.2	28.1	26.6	25.7	25.5	25.4	25.2	25.1	25.0	24.9	24.7
161	88.4	85.7	79.2	66.6	55.6	44.2	38.8	35.4	29.3	26.9	26.1	25.9	25.7	25.5	25.3	25.1	25.0	25.1
165	110.2	108.2	105.7	96.1	85.6	71.9	49.9	48.7	31.1	27.4	26.7	26.8	26.8	26.3	25.9	25.8	25.8	25.9
171	134.2	134.3	134.5	120.1	102.8	73.2	66.1	61.1	37.0	28.5	28.0	28.0	27.1	26.5	26.4	26.2	26.3	26.4
175	145.3	146.3	145.8	137.3	118.1	111.4	95.7	86.3	47.4	31.0	29.5	29.3	28.0	27.6	27.4	27.5	27.1	27.1
181	156.1	161.1	158.3	153.4	139.4	124.6	110.1	102.4	66.7	43.5	36.7	31.2	28.7	28.8	28.4	28.7	27.6	28.0
185	158.7	165.4	164.9	159.9	153.2	138.0	120.8	108.7	84.5	62.7	45.3	34.7	29.4	29.2	28.8	29.2	28.3	28.8

Temperature measurements (°C), overcrowded experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
191	166.1	172.0	169.9	165.5	155.8	141.8	126.8	116.9	89.2	72.0	58.3	38.8	32.0	30.3	29.8	29.8	28.6	29.7
195	172.4	178.0	175.4	171.1	166.4	159.3	140.3	124.4	93.0	83.2	68.5	38.3	33.6	31.2	30.3	30.2	29.5	30.9
201	175.5	185.1	185.9	180.1	173.2	160.7	137.4	125.3	106.8	94.4	81.5	50.8	35.0	32.5	31.4	30.9	30.2	31.6
205	197.1	204.0	200.2	190.3	181.3	166.6	147.7	130.9	111.7	93.7	82.4	51.8	36.5	33.7	31.8	31.8	30.4	31.9
211	184.1	194.2	194.1	192.1	187.8	178.5	162.2	144.4	121.8	100.3	90.2	61.0	37.6	33.8	31.9	31.5	30.3	32.1
215	186.5	199.0	199.4	195.2	191.1	177.6	153.7	138.1	120.4	104.4	93.0	66.2	40.3	34.4	31.7	31.0	29.2	30.1
221	178.6	191.2	190.9	191.1	186.7	172.0	158.7	140.7	125.0	115.9	105.3	68.1	46.0	35.0	31.0	29.8	29.1	29.7
225	181.3	191.2	189.5	188.2	185.7	171.0	156.6	138.2	123.0	113.5	100.3	69.7	51.6	37.0	31.6	31.7	30.1	29.6
231	179.7	189.1	188.0	184.5	181.2	170.6	156.5	141.1	123.8	112.2	101.4	75.4	49.5	38.2	33.1	32.5	31.4	30.6
235	183.6	192.1	191.7	185.1	177.7	164.3	156.6	145.7	129.8	114.7	103.6	74.8	55.1	41.8	34.5	33.0	31.5	31.6
241	177.0	186.7	186.0	183.8	178.4	172.0	163.7	147.8	130.6	117.5	104.8	75.8	57.8	39.3	34.2	32.4	31.2	31.3
245	183.0	190.0	187.4	185.0	181.2	166.4	156.5	143.4	129.7	119.5	109.2	77.3	56.6	37.7	34.1	32.5	31.9	31.5
251	177.1	190.3	188.6	187.9	187.3	177.3	163.7	150.3	133.6	119.2	107.7	77.2	62.4	45.8	36.7	34.1	32.6	31.5
255	180.0	190.6	189.7	186.7	183.5	174.5	163.7	139.4	124.9	115.0	102.5	75.3	61.7	47.9	35.9	32.9	31.9	31.7
261	176.0	187.9	189.2	186.0	182.3	169.4	155.3	138.6	126.1	117.0	110.1	81.2	63.6	52.4	37.3	33.9	32.1	31.8
265	176.8	188.8	189.0	187.9	185.6	175.1	162.4	146.0	125.7	117.0	110.4	80.1	62.4	52.5	37.4	33.5	32.2	31.5
271	185.6	193.9	193.1	190.7	187.4	179.8	163.9	147.7	127.1	119.1	111.2	85.8	63.5	51.7	36.8	34.0	32.6	32.5
275	182.6	192.1	189.6	184.7	181.2	174.8	159.0	141.4	124.5	118.5	108.6	87.3	67.8	50.2	38.0	35.2	33.3	32.4
281	184.7	194.4	192.2	185.9	183.4	175.3	166.5	148.4	130.7	120.8	107.7	87.3	70.6	47.5	38.3	36.6	34.8	32.3
285	183.1	191.8	192.6	190.5	184.8	171.1	162.3	148.7	136.2	126.1	112.7	85.0	71.1	48.8	38.6	36.6	35.5	32.6
291	187.2	199.1	199.6	196.1	190.4	172.4	163.6	145.4	133.7	127.1	113.5	84.0	69.3	50.7	39.1	36.8	34.4	32.1
295	194.2	201.7	203.1	200.5	197.6	184.2	166.6	150.0	135.8	125.1	107.0	83.7	72.2	49.1	38.5	37.7	35.3	33.6
301	192.1	197.4	195.2	194.7	194.5	185.7	169.0	148.5	133.3	124.4	112.9	85.9	71.6	51.1	39.3	37.2	35.7	32.9
305	191.4	200.3	201.3	201.1	200.3	192.0	174.6	154.7	139.5	129.5	122.6	90.9	73.5	51.7	39.8	37.6	35.3	31.3
311	190.6	202.7	201.7	196.9	194.5	186.0	170.8	159.0	145.1	133.8	122.1	89.4	77.4	56.0	38.5	37.9	35.0	33.3
315	195.9	203.4	199.8	196.5	196.9	188.6	170.5	156.3	141.7	133.1	119.3	87.0	75.7	54.9	40.5	38.2	35.9	33.6
321	197.3	206.4	201.0	199.4	192.5	178.1	167.4	155.8	142.8	131.5	121.6	93.6	74.8	52.2	39.3	37.3	35.4	32.1
325	195.7	203.1	199.1	195.3	191.0	181.1	171.5	156.7	140.5	133.0	122.4	93.4	71.6	53.8	40.7	38.3	36.3	35.0
331	199.5	207.7	207.1	202.7	196.8	182.6	169.1	153.8	141.1	133.2	121.5	94.0	75.6	49.0	40.4	38.9	36.8	32.3
335	194.5	204.6	206.2	204.2	202.8	196.9	177.8	154.8	147.4	134.4	120.7	95.7	79.0	52.1	41.2	39.9	37.7	32.8
341	201.8	213.4	214.9	210.1	207.1	197.8	172.4	152.8	141.1	134.1	116.4	94.1	76.5	52.5	41.0	39.5	37.4	33.5
345	197.3	209.7	207.2	200.3	197.8	190.2	173.3	158.6	149.8	141.8	122.2	96.8	74.7	53.1	41.4	39.7	38.2	33.6
351	200.7	213.1	209.5	203.2	195.1	184.7	175.0	159.1	148.5	138.8	127.8	98.8	79.2	55.0	41.8	40.4	38.6	35.4
355	203.7	218.0	220.7	215.0	208.8	194.1	178.2	162.3	148.2	141.1	127.5	98.0	77.0	54.4	43.0	39.9	37.2	34.1
361	203.1	215.9	216.7	215.1	210.8	197.9	180.4	160.9	149.6	143.1	132.6	96.1	74.5	56.0	44.5	37.9	36.2	34.2
365	198.0	208.2	206.4	205.7	206.2	201.7	184.9	163.3	150.5	139.2	125.9	98.3	74.3	52.2	45.9	39.1	36.2	34.7
371	198.7	210.2	209.6	208.8	204.4	195.2	174.2	157.8	148.7	141.7	129.6	102.5	76.9	50.9	44.7	39.5	36.5	35.0
375	204.8	214.1	214.1	211.1	204.7	194.1	179.5	163.8	147.7	136.2	126.1	99.3	76.2	51.8	43.9	40.7	39.6	33.5
381	200.4	210.9	211.4	207.7	206.4	201.8	183.8	166.2	150.9	135.8	122.0	98.1	74.8	52.8	45.2	41.3	37.6	33.4
385	206.5	218.3	213.9	210.2	206.9	195.1	175.2	163.9	150.2	140.6	124.4	100.0	75.8	55.2	45.3	41.8	38.5	34.9
391	205.3	217.9	216.3	215.1	212.5	199.5	181.0	165.6	150.5	139.0	126.9	96.6	71.8	53.0	42.0	38.9	36.7	34.2
395	206.3	215.4	214.3	213.9	214.4	205.8	187.7	168.9	151.1	140.4	128.2	99.1	70.6	52.9	43.7	40.2	37.9	34.1
401	216.3	222.3	220.4	217.2	209.5	192.4	175.8	161.2	151.9	142.1	134.4	97.8	78.3	57.3	44.6	41.7	39.0	34.9
405	213.8	224.3	225.7	222.1	218.3	207.9	186.2	167.2	155.6	144.1	131.3	98.8	77.7	54.2	47.0	43.7	39.6	36.3
411	215.4	224.7	226.4	224.1	220.9	203.9	184.4	168.8	152.7	140.9	122.0	97.4	77.1	54.6	45.5	40.9	37.5	34.9
415	210.2	221.1	222.3	218.9	212.6	198.3	183.6	171.0	161.9	150.0	136.9	96.3	79.4	55.2	44.5	40.5	37.8	35.3
421	218.5	230.8	231.3	225.0	217.5	202.3	182.1	172.5	161.7	149.4	135.1	100.8	78.8	55.6	45.2	41.8	38.3	36.2
425	216.3	228.4	229.5	226.1	221.9	207.6	187.3	173.7	159.8	147.4	132.0	101.2	80.8	55.1	47.4	43.3	40.0	37.7
431	214.8	229.0	231.5	227.1	224.3	218.5	197.3	174.1	159.5	150.7	130.6	99.1	76.9	57.0	49.2	43.0	38.8	36.6
435	217.4	228.1	228.7	221.7	215.6	202.2	187.0	175.4	162.8	151.8	133.0	101.2	77.2	55.2	48.5	42.3	39.0	36.5
441	218.1	227.9	225.1	223.8	221.8	206.8	189.1	170.1	158.9	149.8	134.3	102.9	74.4	55.6	47.8	43.8	38.9	36.3
445	210.5	222.3	221.9	222.2	222.8	215.9	191.9	174.0	159.2	149.4	132.4	102.6	81.3	56.2	48.0	43.6	40.0	37.5
451	214.9	224.8	225.9	224.8	218.5	208.3	190.7	172.2	162.2	156.2	142.3	107.2	83.1	57.8	48.8	45.4	40.3	37.5
455	220.4	230.5	230.5	228.2	222.8	213.4	197.2	179.6	164.1	156.2	141.2	105.9	79.6	59.2	49.1	46.7	40.7	37.8
461	225.1	234.1	232.4	228.7	222.7	209.0	193.3	169.8	159.4	152.9	136.7	107.3	79.4	60.5	50.3	46.7	41.2	38.8
465	223.0	233.3	235.5	231.9	226.1	213.4	194.5	178.1	166.4	150.2	130.2	108.1	78.6	59.8	50.1	43.4	40.2	38.4
471	223.6	234.3	229.6	226.0	216.9	205.3	187.9	172.1	161.8	151.6	134.5	106.1	84.5	59.1	49.6	45.0	41.9	37.7
475	226.9	236.3	232.8	230.3	223.1	208.3	193.6	175.3	162.6	153.6	138.4	106.2	80.3	59.9	48.6	44.6	40.2	37.1
481	222.2	231.0	228.3	226.2	222.1	210.3	197.5	178.8	165.9	153.8	143.6	104.9	77.4	61.0	50.4	43.2	39.6	38.0
485	228.3	237.0	235.5	229.8	226.0	212.5	199.0	179.1	162.0	153.5	135.4	108.0	77.7	59.2	49.1	45.2	41.7	39.3
491	226.2	237.5	238.7	233.2	223.4	210.4	195.9	176.9	164.1	148.3	133.0	106.0	83.9	57.5	50.4	46.7	43.4	38.8
495	233.0	238.2	233.7	229.3	226.2	214.4	200.3	185.6	169.6	157.1	146.8	111.3	84.2	61.0	49.2	46.3	44.8	40.2
501	232.4	241.9	238.7	238.0	232.9	218.9	201.2	186.2	167.1	154.7	140.6	112.8	88.2	62.5	50.0	48.6	45.5	40.4

Temperature measurements (°C), overcrowded experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
505	229.5	241.2	242.8	240.3	235.8	227.6	216.3	195.6	175.1	158.0	137.0	113.7	83.3	62.9	50.0	49.8	44.4	39.3
511	229.3	242.7	244.0	239.4	233.7	219.7	197.0	183.3	171.2	160.0	145.0	115.5	89.9	63.2	51.2	47.7	42.8	40.0
515	238.3	249.7	250.2	242.1	234.1	213.5	199.8	186.6	172.1	159.8	146.3	115.4	92.6	61.3	49.4	45.1	42.7	39.8
521	236.4	245.1	236.1	232.6	227.6	217.0	205.2	187.6	171.4	162.2	145.6	116.6	85.2	62.5	50.2	46.9	42.8	38.2
525	235.2	245.8	244.9	241.3	235.3	226.1	208.3	190.4	175.3	160.9	139.7	114.1	88.1	63.5	49.9	47.9	44.1	39.4
531	236.9	244.7	244.2	240.6	237.4	223.7	206.7	192.7	173.1	161.6	147.4	115.2	88.6	65.0	51.5	49.1	45.3	39.1
535	237.9	250.7	252.3	246.0	239.8	228.6	209.7	191.7	170.1	161.7	149.1	111.6	90.0	68.0	51.9	47.5	43.4	39.4
541	235.1	247.5	248.9	244.4	239.0	222.9	207.8	193.0	170.1	158.9	143.7	112.4	83.1	64.9	51.3	46.9	44.4	40.8
545	230.8	241.1	238.4	235.3	231.5	219.0	199.9	190.7	175.1	163.2	149.4	117.1	89.4	66.3	51.9	48.0	44.6	41.5
551	239.3	249.0	246.1	236.0	230.9	222.0	207.7	188.1	177.8	169.1	158.9	118.5	91.8	62.9	50.4	48.0	45.9	42.6
555	239.2	253.3	253.6	250.0	248.1	240.4	223.4	202.7	187.9	171.5	157.9	119.3	92.0	66.3	53.3	51.1	47.8	42.1
561	237.3	248.4	246.8	244.0	240.0	227.8	215.6	202.4	185.7	167.4	158.7	114.8	91.6	64.0	55.3	51.2	47.1	41.4
565	233.2	243.2	241.9	240.1	236.3	228.9	209.6	189.6	176.1	166.3	157.4	119.3	94.7	68.7	56.0	52.7	47.0	43.0
571	241.2	251.1	252.6	247.0	241.7	228.8	210.9	192.6	173.4	162.5	152.9	123.6	93.3	66.9	53.6	49.7	47.1	42.6
575	231.3	241.4	240.8	242.1	239.9	229.7	209.6	192.5	177.3	167.7	154.8	123.3	99.3	68.8	54.2	50.7	47.7	43.3
581	239.5	247.6	248.0	244.4	242.0	229.4	207.0	190.5	175.8	164.9	150.4	120.9	98.8	68.7	55.1	51.2	48.3	42.8
585	240.1	250.9	251.1	248.0	243.6	231.5	213.0	196.5	180.6	166.6	157.2	123.8	98.6	68.6	54.3	50.2	46.1	42.5
591	237.8	246.0	248.0	244.5	239.9	233.2	221.3	202.5	189.1	171.0	158.7	125.0	96.3	68.3	53.5	49.6	46.2	41.6
595	236.9	246.4	246.2	242.7	240.6	229.2	214.0	201.2	179.9	169.0	159.7	119.7	95.1	69.7	54.8	52.2	47.7	44.3
601	240.3	249.2	248.7	245.5	238.5	228.4	211.9	194.7	177.0	167.0	157.7	120.3	95.6	64.3	53.2	49.9	44.8	42.7
605	233.6	244.6	244.0	241.0	235.9	226.9	213.3	196.6	180.1	170.6	157.9	115.4	99.3	63.8	54.1	51.9	48.0	44.0
611	239.9	248.0	242.9	237.0	232.4	221.0	207.2	195.6	177.8	169.3	152.7	113.9	90.4	64.4	53.2	52.3	48.5	44.4
615	238.6	246.5	241.4	235.9	230.5	221.5	211.0	193.8	177.5	168.8	155.1	115.6	89.1	64.5	53.5	51.9	47.8	43.9
621	244.1	255.7	254.2	244.6	236.2	227.4	206.6	187.4	173.9	166.6	157.9	118.6	92.8	65.4	53.1	51.1	48.7	43.8
625	240.5	249.8	247.4	242.0	232.5	223.4	210.2	194.8	177.6	168.5	159.4	118.3	94.6	64.5	52.1	51.4	48.5	43.7
631	232.2	241.7	239.5	236.5	228.8	219.5	209.4	196.6	189.4	176.9	158.5	120.0	91.5	63.8	52.9	52.2	48.4	43.8
635	230.0	240.5	242.6	239.9	239.2	230.9	216.9	198.9	186.9	180.7	172.6	120.7	92.6	63.3	54.1	51.9	48.3	42.6

Temperature measurements (°C), overcrowded experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
-125	26.6	26.5	26.4	26.2	26.1	25.9	25.7	25.6	25.4	25.4	25.2	25.1	24.9	24.9	24.8	24.7	24.7	24.6
-119	26.6	26.5	26.4	26.2	26.1	25.9	25.7	25.7	25.6	25.4	25.3	25.0	24.9	24.9	24.7	24.7	24.7	24.5
-115	27.0	26.6	26.4	26.2	26.1	25.8	25.7	25.7	25.6	25.5	25.3	25.1	24.9	24.9	24.8	24.7	24.7	24.5
-109	26.9	26.7	26.4	26.2	26.1	25.8	25.8	25.9	25.7	25.6	25.4	25.2	25.0	24.9	24.8	24.7	24.6	24.4
-105	26.8	26.5	26.5	26.3	26.2	25.8	25.9	25.9	25.9	25.8	25.4	25.2	25.1	24.9	24.7	24.6	24.5	24.3
-99	26.9	26.5	26.4	26.3	26.3	26.0	25.9	26.0	25.9	25.9	25.5	25.4	25.1	25.0	24.8	24.7	24.6	24.4
-95	26.8	26.5	26.5	26.4	26.2	26.0	25.9	25.9	25.9	25.9	25.5	25.3	25.1	25.0	24.7	24.7	24.5	24.4
-89	26.8	26.7	26.7	26.6	26.5	26.3	26.1	26.0	25.8	25.9	25.5	25.4	25.1	25.0	24.7	24.6	24.6	24.5
-85	26.9	26.7	26.7	26.6	26.5	26.4	26.2	26.3	25.8	25.8	25.6	25.4	25.1	24.9	24.7	24.6	24.6	24.4
-79	27.0	26.8	26.7	26.5	26.4	26.3	26.3	26.3	25.8	25.8	25.5	25.4	25.1	24.9	24.7	24.6	24.6	24.5
-75	27.0	26.8	26.7	26.5	26.4	26.2	26.2	26.2	25.8	25.8	25.5	25.3	25.1	24.9	24.7	24.6	24.6	24.5
-69	27.0	26.8	26.7	26.6	26.5	26.2	26.2	26.1	25.8	25.7	25.5	25.3	25.1	24.9	24.6	24.5	24.6	24.5
-65	27.0	26.8	26.7	26.5	26.3	26.2	26.1	26.1	25.8	25.7	25.5	25.3	25.0	24.8	24.6	24.6	24.6	24.5
-59	27.0	26.8	26.7	26.5	26.3	26.2	26.1	26.1	25.9	25.7	25.5	25.4	25.1	24.9	24.6	24.6	24.6	24.5
-55	27.1	26.9	26.8	26.6	26.4	26.1	26.1	26.0	25.9	25.8	25.5	25.3	25.2	25.0	24.7	24.6	24.6	24.5
-49	27.1	26.9	26.6	26.5	26.3	26.2	26.1	26.1	25.9	25.9	25.6	25.4	25.1	25.1	24.6	24.6	24.6	24.5
-45	26.8	26.7	26.4	26.3	26.2	26.1	26.1	26.1	25.9	25.7	25.4	25.4	25.1	24.9	24.7	24.7	24.6	24.5
-39	26.7	26.5	26.4	26.3	26.2	26.2	26.1	26.0	25.7	25.5	25.5	25.4	25.1	24.8	24.7	24.6	24.6	24.5
-35	26.7	26.6	26.5	26.3	26.2	26.2	26.0	25.9	25.8	25.5	25.4	25.4	25.1	24.8	24.7	24.7	24.6	24.5
-29	26.8	26.6	26.5	26.4	26.3	26.2	26.1	26.0	25.9	25.7	25.4	25.4	25.2	24.8	24.7	24.6	24.6	24.5
-25	26.8	26.6	26.6	26.5	26.3	26.2	26.1	26.2	26.0	25.8	25.5	25.5	25.2	24.8	24.7	24.7	24.6	24.5
-19	26.7	26.6	26.6	26.5	26.4	26.3	26.2	26.2	26.1	25.8	25.5	25.4	25.2	24.9	24.7	24.7	24.6	24.4
-15	26.8	26.7	26.6	26.5	26.4	26.4	26.3	26.3	26.1	26.0	25.5	25.4	25.2	25.0	24.6	24.6	24.6	24.5
-9	26.9	26.6	26.7	26.5	26.5	26.4	26.4	26.4	26.2	26.0	25.7	25.4	25.2	25.1	24.8	24.6	24.7	24.4
-5	26.9	26.7	26.7	26.6	26.6	26.5	26.4	26.4	26.2	26.1	25.7	25.4	25.2	25.0	24.7	24.7	24.6	24.4
1	27.0	26.7	26.7	26.7	26.7	26.5	26.4	26.4	26.2	26.1	25.6	25.3	25.1	25.0	24.7	24.6	24.6	24.4
5	27.0	26.9	26.8	26.7	26.7	26.5	26.4	26.4	26.2	26.0	25.6	25.3	25.2	24.9	24.7	24.6	24.6	24.4
11	27.1	26.9	26.8	26.7	26.6	26.5	26.4	26.4	26.1	25.8	25.5	25.3	25.1	24.9	24.7	24.6	24.6	24.5
15	27.1	26.8	26.8	26.7	26.6	26.4	26.4	26.4	26.1	25.7	25.5	25.3	25.1	24.9	24.8	24.6	24.6	24.5
21	27.0	26.9	26.9	26.7	26.6	26.4	26.4	26.4	26.1	25.7	25.6	25.3	25.1	24.9	24.8	24.7	24.6	24.5
25	27.0	26.9	26.8	26.7	26.6	26.4	26.4	26.4	26.2	25.8	25.5	25.3	25.1	24.9	24.8	24.7	24.6	24.5
31	27.0	26.9	26.9	26.8	26.7	26.5	26.4	26.4	26.2	25.8	25.5	25.3	25.2	25.0	24.8	24.7	24.6	24.5
35	27.2	27.1	27.0	26.9	26.7	26.5	26.4	26.4	26.2	25.9	25.5	25.4	25.1	25.0	24.8	24.7	24.6	24.6
41	27.6	27.5	27.5	27.2	26.9	26.5	26.4	26.5	26.3	25.9	25.5	25.4	25.1	25.0	24.8	24.7	24.6	24.6
45	27.8	28.0	27.8	27.3	27.0	26.7	26.5	26.5	26.5	26.0	25.6	25.4	25.1	24.9	24.8	24.7	24.7	24.6
51	28.7	28.6	28.1	27.4	27.0	26.7	26.5	26.6	26.4	26.1	25.6	25.4	25.1	24.9	24.7	24.8	24.6	24.5
55	29.1	29.2	28.4	27.7	26.9	26.6	26.5	26.5	26.3	26.0	25.5	25.3	25.1	24.9	24.7	24.8	24.7	24.5
61	29.4	29.6	28.9	28.3	27.5	26.6	26.4	26.4	26.3	25.9	25.5	25.3	25.1	24.9	24.7	24.7	24.7	24.5
65	30.0	30.2	29.2	28.6	27.9	27.3	26.7	26.5	26.3	25.8	25.5	25.4	25.1	25.0	24.7	24.7	24.6	24.5
71	30.3	30.5	29.7	28.9	28.3	27.5	26.9	26.5	26.4	25.8	25.5	25.4	25.1	25.0	24.8	24.7	24.7	24.5
75	31.0	31.1	30.1	29.2	28.5	27.8	26.9	26.7	26.4	25.9	25.6	25.5	25.2	25.0	24.8	24.7	24.7	24.6
81	31.2	31.3	30.3	29.4	28.5	27.8	27.3	27.2	26.7	26.1	25.7	25.5	25.2	25.0	24.8	24.7	24.6	24.6
85	31.4	31.5	30.6	29.8	29.2	28.2	27.6	27.3	26.8	25.9	25.6	25.5	25.1	24.9	24.7	24.7	24.6	24.6
91	31.3	31.2	30.5	29.8	29.3	28.4	28.0	27.7	26.8	25.9	25.7	25.5	25.1	24.9	24.8	24.8	24.7	24.5
95	31.9	32.2	31.1	29.9	29.4	28.7	28.5	27.7	26.8	26.0	25.7	25.5	25.0	24.9	24.8	24.8	24.7	24.6
101	31.9	32.2	31.1	30.3	29.7	28.6	28.3	27.5	26.5	25.8	25.6	25.4	24.9	24.9	24.8	24.7	24.7	24.6
105	33.1	33.5	32.2	31.4	30.4	29.1	28.4	27.4	26.4	25.9	25.4	25.4	25.0	25.0	24.8	24.7	24.6	24.6
111	34.0	34.5	33.2	32.0	30.7	29.6	29.0	27.8	26.7	26.0	25.5	25.4	25.0	24.9	24.8	24.8	24.7	24.5
115	35.6	37.0	35.8	34.3	32.5	30.5	29.3	28.5	27.1	26.1	25.7	25.5	25.2	25.1	24.9	24.8	24.8	24.6
121	49.2	49.3	42.1	39.3	36.8	31.2	30.2	29.4	27.5	26.6	26.1	25.6	25.3	25.1	25.0	24.9	24.9	24.6
125	73.1	72.6	60.3	48.3	38.8	32.9	31.2	29.9	28.0	27.0	26.4	26.0	25.4	25.2	25.1	25.0	25.0	24.7
131	113.9	112.3	91.5	75.9	63.0	44.7	37.4	34.4	28.7	27.2	26.5	26.4	25.9	25.4	25.1	25.0	25.1	24.7
135	144.8	148.1	130.7	116.2	104.6	75.9	66.0	58.8	33.2	28.1	27.7	27.1	26.5	25.7	25.4	25.3	25.4	24.9
141	171.2	178.0	159.2	142.8	128.7	106.2	92.4	81.9	41.4	29.0	28.7	27.7	27.1	26.5	26.0	25.7	25.8	25.1
145	222.0	229.1	207.2	189.8	178.2	152.2	123.3	112.2	59.8	40.3	30.3	28.6	28.4	27.6	26.7	26.2	26.3	25.4
151	267.3	284.3	264.4	234.8	218.5	197.1	177.6	154.4	84.4	45.6	35.4	31.9	30.7	29.3	27.6	26.7	26.9	25.7
155	296.6	313.4	309.6	292.5	272.0	235.6	208.6	194.3	154.5	119.1	68.8	46.5	37.2	31.8	29.7	27.8	27.8	26.3
161	344.2	364.1	344.8	323.5	308.3	279.6	257.6	250.3	212.9	147.7	86.1	61.9	47.1	38.5	33.2	30.3	30.1	27.5
165	356.8	378.3	376.9	361.4	344.5	315.4	291.6	282.4	254.6	230.3	164.5	114.1	59.4	40.8	35.6	32.0	32.4	28.6
171	359.4	382.4	388.4	374.5	356.3	327.5	317.7	317.4	297.5	288.8	225.3	150.7	82.0	53.7	40.8	36.7	35.1	30.3
175	357.3	382.5	388.9	376.0	354.7	330.7	307.8	302.9	291.2	274.2	232.4	200.8	116.0	65.1	50.6	39.8	37.2	31.9
181	366.9	388.4	394.9	388.1	372.3	350.1	327.0	303.8	280.9	260.1	217.3	177.8	130.4	72.7	45.1	37.9	37.3	32.4
185	369.6	394.1	394.9	386.8	376.6	356.7	334.9	326.7	300.8	272.9	239.6	207.4	160.2	112.4	70.3	41.4	37.8	31.6

Temperature measurements (°C), overcrowded experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
191	380.7	398.0	399.8	388.2	370.9	345.9	311.7	303.5	279.7	255.5	233.1	201.2	158.3	115.4	66.6	45.4	38.8	32.9
195	378.6	401.6	409.0	401.6	392.3	368.4	343.7	330.7	296.8	263.4	246.5	226.6	180.1	115.8	63.3	50.6	42.1	35.3
201	435.6	455.4	454.1	439.3	427.2	397.7	369.3	337.1	303.4	271.8	248.1	226.2	192.2	143.2	69.0	53.7	44.9	35.5
205	428.0	449.2	459.6	459.3	450.5	424.5	409.7	390.9	348.3	328.3	278.2	237.0	178.9	107.3	61.4	53.6	45.9	38.6
211	408.1	428.8	434.6	434.5	426.5	413.6	392.2	368.9	349.4	315.9	269.9	236.7	179.0	95.1	61.7	52.2	48.7	40.7
215	380.0	394.4	397.6	393.5	387.1	370.4	355.7	342.6	330.7	309.3	262.9	241.9	195.0	102.5	62.5	53.5	48.6	40.1
221	365.8	380.3	388.6	389.2	383.6	371.5	351.9	332.2	315.0	312.2	286.0	259.1	194.1	109.5	69.7	54.4	49.5	39.9
225	368.5	381.5	387.2	383.3	369.9	350.3	336.4	323.6	299.4	285.3	268.8	256.8	190.6	99.3	63.3	52.0	47.5	41.0
231	368.6	384.1	387.5	381.6	373.5	357.2	343.4	324.6	302.1	299.1	276.2	248.2	182.0	93.1	65.6	52.7	45.8	40.9
235	371.1	380.2	377.3	373.1	363.0	346.1	331.3	310.9	297.0	284.8	254.7	231.1	183.6	112.3	66.4	57.0	47.4	41.9
241	369.3	385.2	389.7	385.7	379.4	358.8	345.0	321.5	301.4	278.3	261.4	230.3	186.8	125.2	74.3	59.3	47.4	41.5
245	362.6	375.8	377.7	377.4	372.8	362.4	345.0	326.8	303.3	287.2	258.8	235.6	191.0	125.5	69.0	57.0	47.4	40.9
251	366.1	378.2	383.3	381.3	376.3	366.4	344.8	330.7	321.5	303.8	269.2	240.7	194.3	135.8	75.4	62.5	51.4	45.0
255	376.0	387.1	389.7	383.3	370.3	348.3	333.9	322.9	307.3	286.7	250.1	224.0	194.7	137.3	80.6	61.3	48.7	42.7
261	378.7	391.4	396.9	396.9	394.0	373.0	345.3	325.3	301.6	287.9	249.9	217.9	179.9	111.3	70.1	63.3	48.8	42.3
265	373.4	385.0	383.4	377.3	371.4	351.2	336.6	323.5	315.1	292.7	258.2	229.5	177.1	109.8	66.9	56.8	48.1	42.4
271	377.9	390.1	392.7	391.1	389.6	384.1	360.9	336.8	311.0	289.0	261.3	231.4	188.8	110.7	70.2	57.4	48.8	41.7
275	375.9	391.6	399.6	401.7	399.5	381.5	360.2	337.3	309.1	293.6	268.8	244.7	197.3	114.2	69.0	60.2	48.9	42.7
281	380.8	393.6	399.1	398.0	394.7	387.7	371.2	350.8	316.5	289.3	253.8	228.9	186.4	109.2	69.7	60.0	47.9	43.2
285	386.7	394.7	393.8	388.5	379.9	365.1	351.0	343.2	335.1	313.8	286.0	261.8	191.6	119.4	70.8	61.7	49.4	43.6
291	382.1	395.3	403.5	405.6	400.3	389.6	371.3	353.6	318.2	285.3	258.5	240.7	200.5	129.5	75.4	63.7	49.6	44.0
295	385.8	401.1	407.6	400.2	390.0	374.6	357.4	342.6	327.9	309.8	278.2	259.8	219.8	128.9	74.5	63.6	48.7	42.5
301	389.8	401.0	403.9	397.6	390.7	372.2	355.9	341.1	321.9	295.4	255.5	232.3	195.5	117.0	71.9	59.6	47.8	42.1
305	393.5	402.6	405.5	397.3	384.4	370.0	354.4	346.7	335.7	324.1	303.1	281.7	224.1	130.8	75.3	59.5	47.4	42.8
311	396.2	408.9	416.8	418.4	409.3	368.9	337.8	325.3	312.8	306.9	272.6	236.1	197.6	110.8	71.3	58.8	47.7	42.6
315	389.1	404.2	407.0	406.1	402.4	394.4	376.9	369.6	344.5	333.1	299.1	282.8	222.7	123.0	74.0	60.3	48.5	42.5
321	397.3	410.6	414.1	412.0	402.5	375.6	356.6	341.0	330.4	312.0	293.4	274.4	225.0	130.1	77.4	58.9	47.5	43.3
325	393.8	407.5	415.8	413.8	400.8	384.7	369.6	356.9	336.2	314.9	290.3	267.1	224.5	149.5	80.7	63.4	50.1	42.7
331	396.1	408.5	412.2	408.8	401.5	391.5	378.1	367.5	336.6	316.0	282.7	253.8	202.5	139.9	77.0	62.5	48.7	42.5
335	399.2	407.9	413.0	412.9	406.8	378.8	365.1	348.3	328.9	306.1	273.8	241.5	208.1	135.1	77.6	65.0	49.0	41.6
341	402.2	413.9	422.2	424.5	424.3	409.8	384.7	367.7	340.5	325.4	294.1	257.3	224.6	126.5	74.1	61.0	48.3	41.4
345	408.1	418.9	414.8	402.0	394.0	383.7	361.8	352.0	334.4	311.1	282.7	254.6	196.4	111.8	72.8	57.6	46.8	40.3
351	403.4	415.6	416.2	413.4	403.4	396.6	381.4	375.6	353.8	330.3	296.9	271.3	233.8	151.5	86.6	66.9	51.8	42.3
355	408.9	419.1	419.3	409.9	398.2	379.6	372.3	362.4	345.0	329.0	285.5	250.9	214.9	160.6	86.6	67.3	50.9	41.9
361	406.3	417.9	421.2	418.2	413.7	407.1	384.2	370.7	341.2	315.3	267.0	230.4	195.9	133.7	80.4	62.2	51.7	43.5
365	407.3	420.0	420.7	419.3	412.3	399.8	376.2	354.1	335.5	317.2	294.2	268.5	227.0	142.9	84.3	67.1	52.3	45.3
371	413.1	426.4	428.8	423.2	412.1	395.3	373.0	363.4	347.6	338.5	310.6	282.0	227.5	135.9	84.4	65.6	55.2	44.7
375	403.8	414.5	418.1	415.9	409.3	403.9	388.5	375.6	348.6	328.4	295.1	252.3	204.4	132.1	82.6	63.7	54.4	45.9
381	405.5	420.6	428.2	430.4	428.6	415.2	396.0	384.4	365.6	349.3	296.7	258.8	229.9	155.3	86.8	70.3	55.8	48.3
385	417.6	431.7	431.4	420.1	406.5	388.8	375.4	363.7	351.4	335.3	286.7	254.6	213.4	149.1	89.2	67.4	56.5	47.5
391	400.6	413.5	419.8	421.6	422.1	414.7	396.1	368.0	319.6	290.7	274.2	254.1	217.3	144.1	82.8	66.2	57.8	47.1
395	421.4	432.2	435.2	429.7	419.1	397.2	375.8	364.2	343.7	330.3	313.3	273.0	211.6	134.5	84.0	65.0	53.5	45.5
401	420.2	428.8	428.8	425.7	411.6	392.7	379.3	372.4	356.3	348.3	335.4	306.4	233.5	147.4	88.9	68.4	54.7	46.9
405	412.3	425.8	429.7	426.9	423.9	413.5	401.7	383.8	365.6	346.5	325.1	292.9	249.6	169.5	103.6	77.0	57.2	48.5
411	420.1	435.0	437.1	433.9	420.5	401.9	391.8	380.1	360.3	336.9	302.2	286.2	238.2	169.4	100.2	73.1	58.3	48.7
415	430.2	444.0	449.1	446.6	437.8	422.8	392.4	375.7	355.5	337.6	304.8	275.0	223.9	150.1	88.6	67.5	56.2	47.8
421	424.6	438.4	438.8	432.4	417.8	401.9	385.8	376.9	369.4	369.7	331.1	298.2	248.4	169.4	98.2	71.0	56.7	50.2
425	428.9	440.6	441.8	434.6	426.9	416.5	395.4	379.6	356.2	342.9	311.7	293.8	238.1	159.7	98.9	73.7	60.1	52.6
431	424.5	438.5	441.4	436.0	427.5	409.4	389.5	376.4	349.7	328.6	315.7	302.2	263.2	182.6	107.4	75.8	61.8	52.1
435	433.5	444.2	433.5	423.7	409.4	398.7	388.5	378.6	365.7	353.2	327.3	305.7	241.0	171.4	101.2	76.8	58.9	49.3
441	430.0	445.4	449.7	445.4	438.6	427.5	400.6	369.7	339.8	322.2	304.0	283.9	238.6	166.7	102.0	75.8	60.0	51.1
445	434.5	449.8	449.5	442.0	426.7	408.4	388.5	379.7	365.8	356.1	336.1	314.2	246.9	161.2	97.1	74.6	59.4	49.7
451	437.8	451.8	447.6	437.4	426.6	410.4	386.1	370.2	353.3	336.1	315.8	294.9	229.7	158.4	101.2	75.1	60.6	49.6
455	436.7	453.4	454.3	448.9	441.2	429.7	405.5	370.0	356.1	345.4	316.4	291.8	249.9	187.0	123.3	82.6	61.8	49.8
461	436.3	454.4	458.2	450.9	438.5	412.7	394.0	377.1	352.4	324.3	302.6	283.7	236.7	177.5	103.9	77.9	60.9	49.6
465	431.9	453.0	458.3	455.1	445.8	428.5	410.8	389.9	368.1	346.6	319.4	287.2	245.1	184.3	111.0	80.6	60.2	47.7
471	437.4	449.5	449.4	442.5	431.6	408.7	394.2	380.4	365.0	344.9	316.3	281.9	232.4	170.7	103.5	77.4	59.6	48.2
475	437.0	446.7	447.4	446.1	444.6	429.5	396.3	363.5	346.2	333.9	317.9	287.0	247.0	170.9	106.5	78.3	63.1	50.1
481	438.3	448.6	447.3	445.3	436.9	420.7	406.8	402.4	391.4	384.0	357.0	322.5	268.8	183.8	117.7	84.8	63.9	51.0
485	437.9	451.4	450.2	443.1	438.9	429.7	412.0	399.9	380.6	355.6	321.6	289.5	253.6	173.5	109.1	81.1	63.9	53.2
491	440.9	461.5	465.8	460.5	451.0	435.0	408.1	399.7	375.3	353.1	315.4	294.7	265.2	198.1	117.1	86.7	64.6	54.5
495	438.5	454.8	454.7	444.9	429.5	416.5	402.5	391.4	378.2	370.4	343.9	309.1	252.5	188.6	110.7	82.9	65.1	55.8
501	447.2	465.8	471.2	465.6	451.8	431.2	390.7	373.3	354.3	338.9	321.0	294.2	254.9	193.5	116.2	83.8	68.0	57.4

Temperature measurements (°C), overcrowded experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
505	435.2	452.9	448.1	441.0	434.1	426.5	418.0	408.2	392.6	381.8	347.0	315.5	283.2	205.0	124.1	84.4	70.0	57.9
511	446.4	457.4	454.5	453.4	445.2	432.7	409.9	389.8	370.3	359.4	337.6	315.8	271.8	191.3	117.0	85.1	67.6	56.8
515	457.4	474.2	475.5	468.6	455.5	436.6	415.4	407.1	392.2	367.7	330.8	307.4	271.6	190.7	115.1	88.0	70.0	58.9
521	462.1	475.0	471.4	464.3	457.2	435.0	405.8	393.0	388.7	379.8	348.2	325.6	274.7	180.3	111.8	85.4	68.9	57.3
525	454.4	474.8	477.6	473.6	460.7	446.2	428.7	422.2	402.5	393.0	360.9	349.1	283.5	217.3	132.8	91.4	70.6	56.4
531	458.2	471.6	467.0	456.0	441.6	418.8	405.3	394.3	378.9	367.8	347.9	311.1	252.4	185.5	117.1	86.4	69.2	59.5
535	464.2	479.8	485.5	478.7	466.8	451.0	419.2	402.9	388.7	369.4	347.9	322.9	285.3	206.9	130.4	88.1	72.2	61.3
541	461.5	473.3	471.7	462.9	448.0	435.2	419.9	403.8	391.0	379.5	353.1	324.4	261.1	199.6	114.6	86.3	70.3	57.6
545	463.3	476.6	479.0	474.4	470.0	459.8	442.6	424.2	397.9	369.0	341.1	310.3	271.6	193.3	125.8	90.3	71.3	58.0
551	462.9	477.2	482.1	481.4	474.7	449.2	427.4	410.4	383.3	351.7	326.2	322.4	268.0	188.4	116.1	90.3	69.8	56.1
555	468.3	482.3	485.0	485.8	485.3	477.2	452.1	425.6	388.7	371.1	329.3	289.5	263.8	181.1	106.7	82.8	68.6	56.3
561	461.2	475.2	476.8	473.9	468.5	454.6	428.6	413.3	399.3	378.4	349.4	339.0	294.9	186.6	111.1	85.1	67.2	57.3
565	443.4	456.1	458.9	460.0	460.3	456.8	445.6	431.3	414.2	398.8	370.0	329.6	283.1	213.3	133.3	95.4	71.5	59.6
571	447.8	457.1	457.7	454.0	446.6	432.7	413.8	403.6	396.2	384.1	359.7	326.6	283.2	218.7	133.6	96.0	71.0	58.2
575	444.6	460.3	466.2	467.5	466.8	455.9	439.8	430.6	416.4	396.0	355.0	324.0	261.5	207.5	119.8	91.1	69.7	56.5
581	447.4	460.2	463.9	462.0	450.6	438.1	427.5	417.8	405.3	386.6	364.5	340.4	269.8	196.8	113.4	86.2	70.3	54.9
585	444.9	459.9	464.5	464.1	462.8	456.3	436.5	416.5	394.8	372.9	327.1	283.0	244.0	183.6	109.4	84.7	69.7	57.2
591	449.5	461.5	464.4	456.5	448.8	440.9	418.0	399.9	380.1	362.4	315.7	277.4	250.1	193.6	117.5	88.5	69.7	58.6
595	443.1	456.8	460.7	456.5	449.3	439.8	422.8	415.2	396.2	367.0	332.9	303.7	258.6	189.5	114.5	87.5	70.3	60.6
601	448.6	463.2	462.8	459.0	454.6	441.3	420.8	409.2	380.1	362.0	331.1	287.6	239.4	161.0	104.7	81.7	70.0	62.0
605	443.1	457.0	460.8	456.9	451.7	445.5	430.4	419.0	401.9	389.1	352.2	314.4	255.3	187.0	117.6	87.7	71.2	59.7
611	446.6	460.8	462.9	458.9	450.7	439.5	431.0	425.0	417.4	410.7	386.8	359.2	301.1	215.6	130.9	93.9	72.9	61.3
615	445.9	456.8	457.8	452.2	445.7	437.4	430.1	414.8	402.2	384.6	360.0	331.8	271.6	211.5	126.1	92.5	74.0	61.5
621	442.1	459.3	466.0	465.9	460.1	449.0	434.4	415.6	395.0	364.4	327.9	295.6	269.4	227.7	134.3	95.1	73.1	61.4
625	449.8	463.9	466.7	460.1	448.2	437.7	429.3	411.1	387.0	368.3	332.7	290.3	242.8	165.6	110.8	85.2	70.3	61.7
631	425.2	433.7	434.5	435.2	434.8	433.6	422.7	413.2	389.9	367.0	338.4	276.7	232.3	150.6	98.6	80.6	70.1	60.7
635	412.6	422.6	424.4	425.2	420.6	414.6	395.0	379.3	364.0	354.0	336.3	296.3	236.0	151.9	97.9	80.4	68.0	59.5

APPENDIX B. TEMPERATURE MEASUREMENTS (SECTION 3)

Temperature measurements (°C), bunk beds experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
-124	29.4	29.0	28.4	28.1	27.6	27.1	26.8	26.5	26.0	25.4	25.2	25.1	24.9	24.9	25.0	24.8	24.6	24.5
-120	29.4	28.9	28.3	28.1	27.6	27.1	26.8	26.5	26.0	25.5	25.2	25.0	24.9	24.9	25.0	24.8	24.7	24.6
-114	29.4	28.9	28.4	28.1	27.6	27.1	26.8	26.5	26.1	25.4	25.2	25.1	25.0	24.9	25.0	24.9	24.6	24.6
-110	29.3	28.9	28.3	28.0	27.6	27.0	26.8	26.6	26.1	25.4	25.3	25.1	25.0	24.9	25.1	24.9	24.6	24.6
-104	29.2	28.8	28.3	27.9	27.6	27.0	26.8	26.6	26.1	25.7	25.3	25.2	25.0	24.9	25.1	24.9	24.7	24.6
-100	29.2	28.8	28.2	27.9	27.6	27.0	26.8	26.6	26.1	25.7	25.4	25.2	25.0	25.0	25.1	24.9	24.8	24.7
-94	29.2	28.7	28.2	27.9	27.6	27.1	26.9	26.6	26.1	25.6	25.4	25.3	25.1	25.0	25.1	25.0	24.8	24.7
-90	29.3	28.7	28.2	27.9	27.6	27.1	26.9	26.7	26.2	25.7	25.4	25.3	25.1	25.0	25.1	25.0	24.8	24.7
-84	29.3	28.8	28.2	27.9	27.6	27.1	26.9	26.7	26.2	25.7	25.5	25.3	25.1	25.0	25.2	25.0	24.7	24.7
-80	29.3	28.7	28.2	27.9	27.6	27.1	27.0	26.8	26.3	25.9	25.5	25.3	25.1	25.1	25.2	25.0	24.8	24.7
-74	29.3	28.7	28.2	27.9	27.6	27.2	27.0	26.8	26.4	25.9	25.6	25.3	25.1	25.1	25.2	25.0	24.9	24.7
-70	29.2	28.6	28.1	27.9	27.7	27.2	27.0	26.8	26.4	25.9	25.5	25.3	25.1	25.1	25.3	25.1	24.9	24.7
-64	29.2	28.6	28.2	27.9	27.7	27.2	27.0	26.8	26.4	25.9	25.6	25.3	25.1	25.1	25.2	25.0	24.8	24.7
-60	29.3	28.7	28.2	28.0	27.8	27.3	27.1	26.8	26.4	25.9	25.5	25.3	25.2	25.1	25.2	25.1	24.9	24.7
-54	29.3	28.7	28.2	28.0	27.8	27.3	27.1	26.8	26.4	25.9	25.6	25.3	25.2	25.1	25.2	25.0	24.8	24.6
-50	29.3	28.8	28.2	28.0	27.8	27.3	27.1	26.8	26.4	25.8	25.6	25.4	25.2	25.1	25.2	25.0	25.0	24.7
-44	29.4	28.8	28.2	28.0	27.8	27.3	27.1	26.8	26.4	25.9	25.6	25.4	25.2	25.1	25.2	25.1	24.9	24.7
-40	29.3	28.9	28.3	28.0	27.8	27.4	27.1	26.8	26.5	25.9	25.6	25.4	25.3	25.1	25.2	25.1	24.9	24.8
-34	29.3	28.9	28.3	28.1	27.8	27.4	27.1	26.9	26.5	25.9	25.6	25.4	25.3	25.2	25.2	25.1	25.0	24.8
-30	29.3	28.8	28.4	28.1	27.8	27.4	27.1	26.8	26.5	26.0	25.7	25.4	25.3	25.2	25.2	25.1	24.9	24.8
-24	29.3	28.8	28.3	28.0	27.7	27.4	27.1	26.8	26.3	25.9	25.7	25.5	25.3	25.2	25.3	25.1	24.9	24.8
-20	29.3	28.8	28.3	28.0	27.8	27.4	27.1	26.8	26.3	25.9	25.7	25.4	25.3	25.2	25.4	25.1	24.9	24.8
-14	29.3	28.8	28.3	27.9	27.7	27.3	27.1	26.8	26.3	25.9	25.7	25.5	25.4	25.4	25.4	25.3	25.0	24.9
-10	29.3	28.8	28.3	28.0	27.7	27.4	27.1	26.9	26.4	25.9	25.7	25.6	25.5	25.4	25.5	25.3	25.1	24.8
-4	29.4	28.9	28.4	28.0	27.8	27.4	27.2	26.9	26.5	26.1	25.8	25.6	25.5	25.5	25.6	25.4	25.2	24.8
0	29.4	29.0	28.5	28.1	27.8	27.4	27.2	26.9	26.6	26.1	25.9	25.7	25.5	25.5	25.6	25.5	25.2	24.9
6	29.5	29.1	28.6	28.3	27.9	27.4	27.3	27.0	26.6	26.2	26.0	25.7	25.5	25.5	25.6	25.5	25.2	24.8
10	29.5	29.1	28.6	28.3	28.0	27.5	27.3	27.0	26.6	26.2	26.0	25.7	25.5	25.4	25.6	25.4	25.2	24.9
16	29.4	29.0	28.6	28.3	28.1	27.6	27.4	27.1	26.7	26.2	26.0	25.8	25.5	25.5	25.6	25.5	25.1	24.9
20	29.4	28.9	28.4	28.3	28.2	27.6	27.4	27.1	26.8	26.3	26.1	25.8	25.6	25.4	25.6	25.5	25.2	24.9
26	29.4	28.9	28.4	28.3	28.2	27.7	27.4	27.1	26.9	26.3	26.1	25.9	25.7	25.5	25.7	25.5	25.2	25.0
30	29.4	28.9	28.5	28.3	28.3	27.8	27.4	27.2	26.9	26.4	26.1	25.9	25.7	25.5	25.7	25.5	25.2	25.0
36	29.3	28.9	28.6	28.5	28.3	27.9	27.4	27.2	26.9	26.7	26.4	26.0	25.7	25.5	25.7	25.5	25.2	25.0
40	29.3	28.9	28.6	28.5	28.4	27.9	27.4	27.2	26.9	26.6	26.4	26.0	25.8	25.6	25.6	25.4	25.2	25.0
46	29.3	29.0	28.8	28.7	28.5	28.1	27.5	27.1	26.9	26.6	26.3	26.0	25.8	25.6	25.7	25.5	25.2	25.0
50	29.1	29.0	28.7	28.7	28.6	28.2	27.5	27.2	27.0	26.6	26.3	26.1	25.8	25.7	25.7	25.5	25.2	25.0
56	29.3	29.1	28.8	28.7	28.6	28.2	27.5	27.2	27.1	26.8	26.4	26.0	25.8	25.7	25.7	25.5	25.3	25.1
60	29.5	29.4	29.1	28.9	28.8	28.2	27.6	27.3	27.1	26.9	26.5	26.1	25.9	25.8	25.8	25.6	25.3	25.1
66	30.1	29.7	29.3	29.1	28.8	28.3	27.9	27.4	27.3	27.0	26.6	26.3	26.0	25.7	25.8	25.6	25.3	25.1
70	30.7	30.1	29.6	29.2	28.8	28.4	27.9	27.5	27.5	27.3	26.8	26.3	26.1	25.8	25.9	25.6	25.3	25.1
76	30.6	30.4	30.1	29.5	29.0	28.5	28.1	27.6	27.6	27.2	26.9	26.3	26.1	25.8	25.9	25.6	25.4	25.2
80	31.1	30.6	30.2	29.8	29.2	28.6	28.1	27.6	27.5	27.2	26.8	26.1	26.0	25.8	25.9	25.6	25.4	25.1
86	31.4	31.2	30.5	30.1	29.5	29.1	28.2	27.7	27.9	27.1	26.7	26.1	26.0	25.8	25.9	25.7	25.4	25.2
90	32.5	32.3	31.7	30.7	29.8	29.1	28.2	27.9	27.9	27.2	26.8	26.1	26.0	25.8	25.9	25.7	25.5	25.3
96	33.2	32.8	31.9	30.9	30.4	29.7	28.3	28.1	27.8	27.3	26.8	26.2	26.0	25.9	25.9	25.8	25.5	25.3
100	33.6	33.2	32.6	31.3	31.0	30.7	28.7	28.1	27.9	27.4	26.8	26.3	26.1	25.9	26.0	25.8	25.6	25.2
106	34.8	34.0	32.4	31.8	31.3	31.0	29.2	28.3	27.9	27.6	27.0	26.5	26.3	26.0	26.0	25.8	25.5	25.2
110	36.1	35.4	34.0	32.7	31.9	31.4	29.5	28.5	28.0	27.5	27.1	26.6	26.4	26.0	26.0	25.8	25.5	25.2
116	36.9	36.2	34.4	33.2	32.6	31.9	29.8	29.0	28.2	27.7	27.1	26.7	26.5	26.1	26.0	25.8	25.5	25.3
120	37.8	37.4	35.7	34.6	33.0	32.1	30.2	29.4	28.5	27.8	27.4	26.8	26.6	26.1	26.0	25.8	25.6	25.3
126	39.6	38.9	38.0	35.1	33.7	32.4	30.5	29.9	29.0	28.1	27.5	26.9	26.7	26.1	26.0	25.9	25.7	25.4
130	42.1	41.5	39.6	37.0	34.8	34.1	31.7	30.6	29.1	28.5	27.8	27.0	26.8	26.1	26.0	25.9	25.6	25.4
136	43.8	43.1	40.9	38.6	37.2	34.5	32.5	31.5	30.7	28.4	27.8	27.1	26.7	26.1	26.1	25.9	25.7	25.4
140	45.9	44.8	43.4	40.6	37.1	35.0	33.8	33.2	31.4	28.6	27.9	27.1	26.5	26.1	26.1	25.9	25.6	25.4
146	49.9	47.7	45.2	42.2	38.2	36.2	35.6	35.4	35.5	29.3	28.4	27.3	26.6	26.2	26.3	26.0	25.7	25.4
150	51.0	50.3	46.9	43.9	40.8	39.3	38.7	39.9	40.1	31.5	28.7	27.6	27.0	26.5	26.4	26.2	25.8	25.6
156	54.9	52.4	47.4	45.6	43.1	43.3	43.1	43.4	44.5	39.8	29.7	28.0	27.4	26.5	26.6	26.6	26.0	25.6
160	59.0	56.4	52.6	49.0	46.6	47.1	46.6	47.0	49.5	47.9	34.0	28.3	27.6	26.9	26.8	26.7	26.1	25.6
166	64.4	59.3	52.4	50.1	49.4	51.0	50.3	52.2	55.5	49.9	38.4	28.5	27.7	26.9	26.9	26.8	26.2	25.8
170	64.4	61.2	57.0	52.8	53.5	56.3	55.4	57.7	59.6	55.9	44.6	29.0	27.9	27.1	27.0	26.8	26.3	25.9

Temperature measurements (°C), bunk beds experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
176	68.1	64.3	59.2	57.4	57.0	57.5	56.5	58.7	60.3	59.7	51.0	28.7	27.4	27.2	27.2	27.0	26.6	26.2
180	71.7	68.7	62.8	60.5	59.5	60.6	58.7	60.5	61.3	62.7	46.3	28.6	27.9	27.4	27.4	27.3	26.8	26.4
186	89.4	80.6	68.1	62.2	62.1	64.0	64.3	65.4	66.1	61.2	50.5	29.7	28.4	27.8	28.2	27.9	27.2	26.6
190	98.2	88.5	74.1	68.9	69.0	73.7	72.2	73.5	73.9	69.5	53.3	36.3	29.1	28.6	29.2	29.1	27.6	26.9
196	110.6	105.3	89.0	79.7	75.4	80.1	79.5	78.8	78.7	75.3	64.7	34.9	30.0	29.8	29.6	29.3	27.8	27.3
200	110.2	106.9	97.3	93.1	88.2	87.8	79.1	79.5	80.4	80.4	74.3	39.0	30.2	29.9	29.6	29.5	27.9	27.4
206	119.0	114.1	105.1	98.1	89.7	93.6	93.0	91.8	94.6	83.4	71.8	43.6	31.6	30.7	30.3	29.9	28.3	27.7
210	129.0	124.2	112.0	104.6	101.5	108.1	107.5	107.5	109.6	94.9	80.5	51.3	35.1	31.2	30.6	30.9	29.4	28.4
216	152.0	146.2	131.2	118.4	112.3	117.2	116.4	119.2	121.9	115.9	100.5	64.0	37.8	34.6	32.9	32.9	30.6	29.3
220	185.8	176.6	151.2	138.5	128.8	130.5	126.5	127.0	130.9	126.4	111.7	80.5	38.3	34.4	33.4	34.4	31.5	29.9
226	202.5	196.0	183.6	173.2	158.7	151.4	137.2	132.2	137.3	139.3	126.3	94.8	45.6	38.8	35.4	35.3	32.5	30.5
230	236.3	227.3	213.3	205.0	187.1	182.9	165.2	151.4	156.6	155.1	144.4	113.9	58.4	44.8	40.3	39.9	35.3	32.6
236	322.8	303.9	281.7	278.4	258.4	265.1	224.1	191.7	180.5	179.3	176.3	148.6	93.4	51.9	44.0	43.4	38.3	35.3
240	428.4	400.3	362.7	347.7	331.7	320.5	282.7	277.1	221.0	212.1	207.6	171.5	129.8	72.8	48.4	48.4	43.2	39.1
246	521.9	494.1	443.4	431.0	398.1	394.4	348.2	337.1	312.7	279.2	281.4	239.1	192.1	98.1	52.2	52.7	47.8	41.8
250	665.3	645.5	579.8	557.0	515.3	505.6	475.3	462.1	487.3	482.9	439.4	375.3	336.2	230.0	88.9	90.0	70.4	60.7
256	796.0	807.0	795.0	801.0	794.0	816.0	766.0	683.2	650.5	615.6	573.3	479.1	436.0	366.9	168.0	148.5	105.8	87.2
260	789.0	800.0	784.0	789.0	782.0	792.0	771.0	737.0	708.0	673.9	624.0	562.9	520.7	436.3	248.6	175.9	117.9	150.5
266	810.0	821.0	822.0	803.0	796.0	765.0	715.0	676.3	650.3	626.3	600.5	560.0	546.3	535.0	345.2	241.1	148.6	152.1
270	755.0	767.0	762.0	753.0	745.0	718.0	678.8	642.9	613.4	583.7	575.8	544.7	524.0	522.3	476.2	380.9	163.0	155.4
276	778.0	776.0	762.0	743.0	720.0	672.9	633.8	600.6	565.2	546.9	536.5	509.2	491.3	477.9	404.9	238.2	181.0	167.0
280	751.0	749.0	740.0	725.0	706.0	671.1	616.3	571.8	548.3	510.5	485.4	463.4	451.0	428.3	386.6	300.6	167.5	153.6
286	766.0	765.0	752.0	743.0	730.0	664.6	609.7	580.3	559.4	531.3	519.7	497.3	478.3	445.4	394.5	240.1	160.3	152.1
290	788.0	788.0	789.0	791.0	772.0	704.0	626.7	595.9	584.4	562.6	551.9	542.2	526.6	467.2	358.1	243.8	160.2	151.1
296	785.0	792.0	794.0	781.0	762.0	719.0	665.9	622.2	592.9	569.0	553.4	535.3	515.9	484.0	413.0	291.3	171.8	149.3
300	784.0	786.0	773.0	767.0	735.0	692.8	627.2	591.0	563.1	549.8	546.3	548.9	544.4	536.6	466.0	221.9	179.1	167.0
306	794.0	797.0	793.0	791.0	765.0	694.4	639.2	614.1	593.5	574.3	566.7	562.3	558.5	546.5	492.5	241.8	187.9	180.1
310	774.0	777.0	769.0	758.0	731.0	685.6	643.2	611.6	580.1	557.7	548.9	545.3	544.0	530.1	401.8	236.5	197.9	176.7
316	772.0	772.0	762.0	753.0	729.0	692.5	658.7	606.8	569.2	545.8	539.4	541.0	545.4	525.5	457.3	259.7	207.2	181.0
320	771.0	771.0	763.0	757.0	735.0	688.8	648.0	609.2	575.7	557.3	547.6	548.5	546.6	539.6	455.9	252.2	206.6	191.8
326	765.0	767.0	766.0	763.0	742.0	690.4	638.8	598.7	568.6	536.9	523.8	526.0	532.7	522.8	458.3	262.5	200.1	186.8
330	774.0	780.0	776.0	779.0	753.0	712.0	669.8	622.7	584.5	554.9	542.5	539.0	540.5	532.3	436.1	260.5	213.2	195.0
336	763.0	768.0	762.0	757.0	741.0	696.7	658.7	630.2	606.6	575.9	559.2	546.2	537.7	518.7	401.5	246.4	217.4	199.3
340	764.0	771.0	770.0	774.0	742.0	684.4	649.1	623.2	599.4	579.2	573.1	575.2	557.2	529.1	447.0	291.4	211.7	204.3
346	755.0	758.0	747.0	735.0	715.0	671.9	646.8	625.3	609.3	595.2	584.4	566.4	557.6	532.9	380.3	254.9	228.8	211.8
350	751.0	754.0	747.0	739.0	717.0	680.3	654.3	625.9	608.8	597.8	597.3	593.2	558.6	512.9	413.2	267.9	228.9	217.7

Temperature measurements (°C), bunk beds experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
-124	26.9	26.3	26.0	25.9	25.6	25.2	25.1	25.0	24.9	24.9	25.1	25.1	24.9	24.9	24.8	24.7	24.5	24.5
-120	27.0	26.6	26.3	26.3	25.9	25.7	25.4	25.1	25.1	25.0	25.2	25.0	24.9	25.0	24.9	24.7	24.5	24.4
-114	27.1	26.8	26.3	26.2	26.0	25.9	25.6	25.4	25.2	25.1	25.1	25.1	24.9	25.0	24.9	24.8	24.6	24.5
-110	27.2	27.0	26.5	26.5	26.3	26.2	25.7	25.5	25.3	25.2	25.3	25.1	25.0	25.0	24.9	24.8	24.6	24.5
-104	27.2	27.1	26.6	26.6	26.3	26.2	25.9	25.5	25.3	25.3	25.4	25.1	25.0	25.0	25.0	24.8	24.7	24.6
-100	27.2	26.8	26.6	26.5	26.3	25.9	25.8	25.5	25.4	25.3	25.3	25.1	24.9	25.0	25.0	24.9	24.7	24.6
-94	27.2	26.8	26.6	26.5	26.2	26.0	25.8	25.5	25.4	25.3	25.3	25.1	25.0	25.0	25.0	24.9	24.8	24.6
-90	27.1	27.0	26.9	26.8	26.5	26.4	26.0	25.6	25.3	25.2	25.3	25.1	25.0	25.0	25.0	24.9	24.7	24.7
-84	27.2	27.1	27.0	26.9	26.6	26.3	26.2	25.8	25.4	25.2	25.2	25.2	25.0	25.0	25.0	24.9	24.8	24.6
-80	27.2	27.0	27.0	26.8	26.7	26.4	26.1	25.8	25.5	25.2	25.2	25.2	25.0	25.0	25.0	24.9	24.8	24.6
-74	27.1	27.0	26.8	26.6	26.5	26.2	26.0	25.7	25.5	25.3	25.2	25.2	25.0	25.0	25.0	24.9	24.9	24.6
-70	27.1	27.0	26.8	26.6	26.5	26.3	26.1	25.7	25.5	25.4	25.3	25.2	25.0	25.0	25.0	24.9	24.8	24.6
-64	27.1	27.1	26.9	26.7	26.5	26.3	26.2	25.9	25.5	25.4	25.4	25.2	25.0	25.0	25.0	24.9	24.8	24.6
-60	27.3	27.2	27.0	26.9	26.6	26.3	26.3	26.0	25.7	25.4	25.4	25.2	25.1	25.0	25.0	24.9	24.8	24.5
-54	27.2	27.1	26.9	26.7	26.6	26.4	26.2	25.9	25.6	25.4	25.4	25.2	25.1	25.0	25.0	24.9	24.8	24.5
-50	27.3	26.9	26.7	26.6	26.5	26.4	26.2	25.9	25.6	25.3	25.4	25.3	25.1	25.0	25.0	24.9	24.8	24.4
-44	27.4	26.9	26.6	26.5	26.5	26.4	26.2	25.9	25.7	25.4	25.5	25.3	25.2	25.1	25.1	25.0	24.9	24.6
-40	27.3	27.0	26.8	26.6	26.4	26.3	26.2	26.0	25.7	25.5	25.5	25.3	25.2	25.1	25.1	25.0	24.9	24.5
-34	27.4	27.2	27.0	27.0	26.6	26.5	26.3	26.0	25.7	25.6	25.4	25.3	25.2	25.2	25.1	25.0	24.9	24.7
-30	27.5	27.3	27.1	27.1	26.9	26.9	26.5	26.0	25.9	25.6	25.5	25.3	25.2	25.1	25.1	25.0	24.9	24.7
-24	27.5	27.4	27.2	27.2	27.0	26.9	26.8	26.3	26.1	25.8	25.7	25.4	25.3	25.1	24.9	24.9	24.7	24.7
-20	27.4	27.2	27.0	26.9	26.8	26.6	26.5	26.3	26.2	25.8	25.7	25.6	25.4	25.2	25.0	24.8	24.6	24.7
-14	27.3	27.2	27.0	26.8	26.8	26.5	26.4	26.2	26.1	25.8	25.8	25.6	25.5	25.2	25.0	24.8	24.7	24.6
-10	27.2	27.0	26.9	26.8	26.6	26.3	26.3	26.2	26.0	25.8	25.7	25.6	25.4	25.2	25.0	24.8	24.7	24.6
-4	27.2	26.7	26.7	26.7	26.5	26.4	26.4	26.2	26.1	25.9	25.9	25.7	25.5	25.3	25.1	24.9	24.8	24.6
0	27.1	26.7	26.6	26.6	26.5	26.4	26.3	26.2	26.1	25.9	25.9	25.7	25.4	25.3	25.1	24.9	24.8	24.6
6	27.1	26.9	26.8	26.8	26.6	26.5	26.3	26.2	26.1	25.9	25.9	25.7	25.4	25.4	25.1	24.9	24.8	24.7
10	27.2	27.1	26.9	26.9	26.7	26.5	26.4	26.2	26.2	26.1	25.9	25.6	25.4	25.4	25.2	24.9	24.8	24.6
16	27.2	27.4	27.2	27.0	26.8	26.5	26.4	26.3	26.3	26.0	26.0	25.6	25.4	25.4	25.2	24.9	24.8	24.5
20	27.5	27.4	27.2	27.1	26.9	26.7	26.5	26.3	26.3	26.0	25.8	25.5	25.4	25.3	25.2	24.9	24.9	24.6
26	27.5	27.3	27.1	27.0	26.9	26.8	26.6	26.4	26.3	25.7	25.7	25.6	25.3	25.3	25.2	25.0	24.9	24.8
30	27.4	27.2	27.0	27.0	26.9	26.8	26.5	26.3	26.1	25.7	25.6	25.5	25.3	25.3	25.2	25.0	24.8	24.6
36	27.5	27.3	27.1	26.9	26.8	26.8	26.5	26.3	26.1	25.8	25.7	25.5	25.4	25.3	25.3	25.0	24.8	24.6
40	27.7	27.3	27.1	27.0	26.8	26.7	26.6	26.4	26.2	25.9	25.8	25.6	25.5	25.3	25.3	25.1	24.8	24.7
46	27.7	27.4	27.2	27.1	26.8	26.6	26.6	26.4	26.2	26.0	25.9	25.8	25.5	25.5	25.3	25.2	24.9	24.5
50	27.6	27.5	27.3	27.1	26.9	26.6	26.5	26.4	26.2	26.0	26.0	25.9	25.6	25.5	25.4	25.2	24.9	24.7
56	27.6	27.4	27.3	27.1	26.9	26.7	26.5	26.3	26.2	26.1	26.0	25.9	25.7	25.5	25.3	25.3	24.9	24.7
60	27.5	27.5	27.4	27.3	27.0	26.6	26.4	26.4	26.3	26.1	26.0	25.9	25.7	25.4	25.4	25.3	25.0	24.7
66	27.5	27.5	27.4	27.4	27.0	26.6	26.5	26.3	26.2	26.1	26.1	25.9	25.6	25.4	25.3	25.0	24.7	24.6
70	27.5	27.5	27.4	27.2	26.8	26.6	26.5	26.3	26.2	26.1	26.0	25.8	25.6	25.4	25.3	25.0	24.9	24.5
76	27.6	27.6	27.5	27.2	26.8	26.7	26.6	26.3	26.3	26.1	26.0	25.8	25.5	25.3	25.3	25.1	24.9	24.4
80	27.7	27.6	27.5	27.3	26.9	26.8	26.7	26.5	26.4	26.3	26.0	25.8	25.4	25.3	25.3	25.0	24.7	24.5
86	27.8	27.7	27.5	27.3	27.1	26.9	26.7	26.5	26.5	26.3	26.1	25.8	25.5	25.4	25.3	25.2	24.9	24.7
90	27.7	27.6	27.4	27.3	27.1	26.9	26.7	26.6	26.5	26.2	26.0	25.8	25.5	25.4	25.4	25.2	24.9	24.5
96	27.7	27.7	27.5	27.4	27.3	26.9	26.6	26.6	26.5	26.2	26.0	25.8	25.4	25.4	25.3	25.1	25.0	24.5
100	27.7	27.6	27.5	27.4	27.2	26.9	26.7	26.5	26.5	26.2	26.0	25.8	25.4	25.4	25.3	25.1	25.0	24.6
106	27.6	27.6	27.5	27.3	27.2	27.0	26.8	26.5	26.5	26.3	26.1	25.9	25.5	25.4	25.3	25.1	24.9	24.7
110	27.6	27.7	27.5	27.5	27.4	27.0	26.8	26.6	26.5	26.4	26.2	25.9	25.6	25.4	25.3	25.1	24.9	24.8
116	27.7	27.8	27.7	27.6	27.3	27.0	26.8	26.6	26.5	26.3	26.2	26.0	25.6	25.3	25.2	25.1	24.9	24.8
120	27.9	27.9	27.7	27.5	27.3	27.0	26.9	26.6	26.6	26.4	26.4	26.1	25.5	25.2	25.1	25.0	24.9	24.8
126	28.0	28.0	27.7	27.5	27.1	27.0	26.9	26.7	26.6	26.4	26.3	26.1	25.7	25.2	25.1	25.0	24.8	24.7
130	28.0	28.1	27.7	27.7	27.2	27.2	27.0	26.8	26.6	26.5	26.4	26.1	25.7	25.2	25.1	24.9	24.7	24.6
136	28.1	28.1	27.7	27.5	27.3	27.1	27.0	26.8	26.7	26.6	26.5	26.1	25.7	25.2	25.1	25.0	24.6	24.4
140	28.1	28.1	27.6	27.5	27.4	27.3	27.0	26.8	26.8	26.6	26.6	26.2	25.7	25.2	25.1	24.9	24.5	24.4
146	28.1	28.0	27.6	27.5	27.3	27.2	27.0	26.8	26.8	26.6	26.6	26.2	25.7	25.3	25.2	24.9	24.6	24.4
150	28.1	28.2	27.8	27.7	27.5	27.2	27.0	26.9	26.7	26.6	26.4	26.0	25.6	25.3	25.2	25.1	24.6	24.5
156	28.2	28.3	28.1	27.9	27.7	27.5	27.1	26.9	26.7	26.5	26.3	26.0	25.6	25.3	25.3	25.0	24.7	24.6
160	28.7	28.6	28.4	28.2	28.0	27.6	27.1	27.0	26.8	26.4	26.3	26.0	25.7	25.5	25.3	25.1	24.9	24.7
166	29.4	29.6	29.1	28.7	28.1	27.7	27.2	27.1	27.0	26.5	26.4	26.1	25.8	25.7	25.4	25.2	25.0	25.0
170	29.5	29.6	29.1	28.6	28.0	27.7	27.3	27.0	26.9	26.5	26.5	26.3	26.0	25.6	25.5	25.2	25.1	25.1
176	31.0	31.8	30.6	29.8	28.4	28.0	27.4	27.2	26.9	26.5	26.5	26.2	25.7	25.3	25.4	25.2	25.2	25.1
180	32.0	31.9	30.7	30.0	29.0	28.6	27.9	27.3	27.0	26.6	26.6	26.1	25.5	25.3	25.3	25.1	25.1	25.0
186	32.4	32.5	31.5	31.3	30.3	29.5	28.1	27.7	27.5	27.0	26.9	26.3	25.7	25.3	25.3	25.2	24.9	24.7

Temperature measurements (°C), bunk beds experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
190	33.2	33.7	32.9	32.6	31.3	30.1	28.4	28.4	28.1	27.4	27.0	26.4	25.7	25.3	25.2	24.8	24.8	24.5
196	33.8	34.1	33.4	33.2	32.4	31.5	28.9	28.9	28.0	27.3	26.9	26.4	25.6	25.4	25.4	25.1	24.9	24.7
200	35.3	36.5	36.0	36.1	34.4	31.5	30.0	29.9	28.4	27.2	26.9	26.4	25.7	25.4	25.4	25.2	24.8	24.6
206	35.8	37.8	36.8	37.1	35.5	32.8	30.9	30.6	27.9	27.0	26.8	26.3	25.8	25.5	25.4	25.2	24.9	24.6
210	39.5	41.6	40.3	40.8	38.1	34.3	31.9	31.9	29.4	26.9	26.6	26.3	25.9	25.6	25.5	25.3	25.0	24.7
216	42.3	44.4	43.3	43.6	41.0	35.5	33.7	33.6	31.5	27.0	26.6	26.3	25.9	25.5	25.5	25.3	24.9	24.8
220	44.9	47.0	46.0	46.7	44.6	38.8	36.7	35.6	32.5	26.9	26.7	26.3	26.0	25.6	25.5	25.4	25.0	25.0
226	50.1	52.2	50.4	50.6	48.3	44.5	40.5	40.0	36.8	27.2	26.8	26.4	26.0	25.7	25.6	25.4	25.1	25.0
230	55.3	57.0	54.6	55.3	52.2	47.5	42.7	41.8	38.2	27.4	27.0	26.7	26.3	25.8	25.7	25.5	25.2	25.0
236	60.5	65.8	63.1	64.2	59.9	51.6	46.0	45.3	40.6	30.5	27.3	27.1	26.8	26.3	25.9	25.5	25.3	25.0
240	71.7	76.6	73.2	73.5	68.4	63.7	55.2	52.9	49.6	37.8	29.2	28.1	27.2	26.7	26.1	25.7	25.4	25.1
246	90.0	97.9	91.3	93.2	86.5	79.2	61.3	61.5	60.0	43.5	31.1	28.8	27.4	26.9	26.2	25.7	25.6	25.3
250	121.5	129.4	122.5	127.6	117.0	104.4	84.2	76.1	76.8	54.9	35.4	32.1	29.0	27.6	26.7	25.8	25.6	25.5
256	163.3	173.6	162.8	168.3	153.7	139.6	115.3	107.9	103.4	75.9	39.4	34.2	30.9	28.4	28.1	26.6	26.0	25.8
260	176.5	190.3	186.2	193.0	186.0	173.6	148.3	142.8	137.6	102.2	50.0	39.8	33.2	29.5	29.1	27.4	26.9	26.9
266	199.6	211.7	209.8	210.7	202.3	187.4	167.5	165.3	161.9	113.3	66.5	52.7	42.6	31.3	31.0	29.0	28.0	28.1
270	202.2	213.3	212.4	212.6	206.0	199.4	181.7	174.5	171.3	134.4	99.2	75.0	47.5	32.8	33.4	30.2	29.0	28.6
276	341.5	351.1	298.1	268.8	228.2	207.8	194.1	184.0	178.4	150.6	117.4	88.6	65.0	42.1	36.0	31.2	30.1	29.8
280	246.7	260.1	257.2	251.4	241.2	233.5	216.1	210.5	203.5	157.7	120.9	89.0	48.7	40.3	36.8	32.9	31.6	31.0
286	227.9	242.6	242.5	242.3	236.9	232.8	211.6	204.7	188.6	163.6	123.3	102.3	58.7	39.7	35.1	33.2	31.3	30.9
290	236.1	247.5	246.1	249.3	235.7	214.9	198.6	185.1	175.8	162.9	133.7	97.6	59.8	42.9	38.2	31.9	30.1	30.4
296	236.2	242.8	239.3	237.3	226.8	212.0	201.8	192.7	186.4	165.8	143.7	105.8	61.3	45.4	38.9	34.5	32.0	30.9
300	234.7	242.5	238.6	237.7	228.2	208.3	196.9	188.0	169.4	159.3	141.4	112.8	64.9	45.6	39.7	35.5	33.2	32.5
306	233.1	243.0	237.8	233.8	223.7	202.8	195.5	189.5	173.0	159.0	146.8	122.5	72.6	46.7	41.6	37.6	36.1	35.6
310	235.1	246.9	245.1	241.4	227.1	211.6	197.8	195.3	190.4	163.5	150.2	132.6	87.3	51.0	41.9	37.3	36.5	35.0
316	242.2	248.3	243.8	239.3	228.3	218.8	201.0	196.6	182.3	165.6	149.5	121.5	80.5	58.8	45.6	38.9	34.7	33.3
320	238.7	246.1	239.0	237.2	227.0	216.1	201.0	188.5	179.7	168.8	156.3	132.2	83.2	60.4	46.4	39.0	34.8	32.2
326	242.5	249.3	247.2	248.7	240.5	231.2	214.7	197.5	184.8	166.5	153.3	133.8	78.1	55.4	45.6	39.4	36.3	33.3
330	240.4	248.7	245.6	236.3	229.6	212.8	201.0	186.9	175.3	166.9	154.1	132.2	80.9	55.7	46.7	39.4	36.7	34.3
336	240.7	248.3	247.2	246.7	238.3	225.7	205.7	190.3	178.5	167.9	158.5	136.9	89.0	61.1	48.8	42.2	39.4	34.4
340	239.7	252.4	250.7	250.9	246.0	236.0	219.7	202.0	189.1	172.3	159.5	133.5	90.0	57.9	49.5	41.4	36.5	32.6
346	236.5	246.9	247.0	248.0	242.9	233.9	213.5	201.0	190.6	172.2	157.7	140.6	85.4	58.4	47.6	40.4	35.6	30.7
350	245.3	258.0	256.1	253.6	226.7	213.5	207.9	191.8	179.6	172.2	156.5	139.2	88.4	64.4	49.4	40.4	35.0	32.2

Temperature measurements (°C), bunk beds experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
-124	29.0	28.7	27.5	27.3	26.9	26.4	26.4	26.2	26.1	26.1	25.8	25.4	25.3	25.1	25.0	24.8	24.9	24.7
-120	29.0	28.4	27.6	27.3	26.9	26.4	26.4	26.2	26.2	26.1	25.7	25.4	25.2	25.0	25.0	24.9	24.9	24.8
-114	28.9	28.4	27.5	27.2	27.0	26.6	26.5	26.2	26.2	26.0	25.7	25.4	25.2	25.0	25.1	24.9	24.9	24.8
-110	28.9	28.7	27.7	27.5	27.0	26.7	26.7	26.3	26.2	26.1	25.9	25.5	25.3	25.1	25.1	24.9	24.9	24.8
-104	28.8	28.8	28.1	27.6	27.1	26.9	26.7	26.3	26.1	26.0	26.0	25.5	25.3	25.2	25.0	24.9	24.9	24.8
-100	28.8	28.8	28.3	27.5	27.0	26.8	26.6	26.3	26.1	26.0	25.9	25.5	25.3	25.2	25.1	24.9	24.9	24.8
-94	28.9	28.9	27.9	27.3	27.2	26.8	26.7	26.3	26.2	26.0	26.0	25.7	25.4	25.2	25.1	24.9	24.9	24.8
-90	28.9	28.9	28.0	27.6	27.1	26.8	26.8	26.4	26.3	26.0	25.8	25.4	25.3	25.2	25.1	24.9	24.9	24.8
-84	28.9	28.9	28.3	27.7	27.2	26.9	26.8	26.4	26.3	26.0	25.9	25.6	25.3	25.2	25.1	24.9	24.9	24.9
-80	29.0	29.0	28.3	27.8	27.3	26.9	26.8	26.4	26.3	26.1	26.0	25.6	25.2	25.2	25.2	25.0	25.0	24.9
-74	29.0	28.6	27.9	27.7	27.3	26.8	26.7	26.5	26.3	26.2	25.9	25.6	25.2	25.2	25.2	25.1	25.0	24.9
-70	29.0	28.4	28.0	27.6	27.1	26.8	26.8	26.5	26.4	26.2	26.0	25.6	25.3	25.2	25.2	25.0	25.0	24.9
-64	28.9	28.3	27.9	27.5	27.0	26.8	26.7	26.5	26.4	26.3	26.0	25.7	25.4	25.3	25.3	25.1	25.0	24.9
-60	28.8	28.2	27.9	27.4	27.0	26.8	26.6	26.5	26.4	26.3	26.1	25.8	25.4	25.3	25.3	25.0	25.0	24.9
-54	28.9	28.4	27.9	27.7	27.0	26.8	26.8	26.5	26.4	26.3	26.2	25.9	25.5	25.4	25.3	25.1	25.1	25.0
-50	28.8	28.1	27.7	27.4	27.0	26.7	26.8	26.4	26.5	26.2	26.3	25.9	25.5	25.3	25.3	25.0	25.0	25.0
-44	28.9	28.3	27.8	27.2	27.0	26.7	26.8	26.6	26.5	26.4	26.2	26.0	25.5	25.4	25.4	25.1	25.1	25.0
-40	28.9	28.2	27.9	27.3	27.0	26.8	26.8	26.6	26.5	26.4	26.2	26.1	25.6	25.4	25.4	25.1	25.1	25.0
-34	28.9	28.4	28.0	27.3	27.0	26.8	26.8	26.6	26.4	26.3	26.2	26.1	25.7	25.5	25.5	25.3	25.3	25.2
-30	28.9	28.3	27.8	27.2	26.9	26.8	26.8	26.5	26.4	26.2	26.1	25.9	25.6	25.5	25.6	25.5	25.4	25.3
-24	29.0	28.3	27.9	27.3	26.9	26.8	26.9	26.7	26.5	26.4	26.2	25.8	25.7	25.7	25.9	25.5	25.7	25.4
-20	29.0	28.4	27.6	27.3	26.9	26.9	27.0	26.8	26.6	26.5	26.3	26.0	25.8	25.7	25.8	25.6	25.5	25.5
-14	29.1	28.5	27.7	27.4	27.1	26.8	27.0	26.8	26.5	26.4	26.3	26.1	25.9	25.7	25.8	25.6	25.6	25.3
-10	29.0	28.7	27.6	27.4	27.1	26.9	26.9	26.6	26.5	26.3	26.1	25.9	25.8	25.8	25.7	25.5	25.5	25.3
-4	28.9	28.3	27.5	27.3	27.1	26.9	26.9	26.6	26.5	26.2	26.0	25.8	25.7	25.7	25.8	25.4	25.4	25.2
0	28.9	28.7	27.8	27.5	27.1	26.8	26.8	26.6	26.5	26.3	26.0	25.9	25.7	25.6	25.6	25.3	25.3	25.2
6	29.1	28.7	28.0	27.4	27.2	26.9	26.9	26.7	26.6	26.3	26.1	25.8	25.7	25.5	25.5	25.3	25.3	25.2
10	29.1	29.0	28.1	27.6	27.2	27.0	27.0	26.8	26.6	26.3	26.2	25.9	25.7	25.5	25.5	25.3	25.4	25.2
16	29.2	28.7	27.9	27.4	27.2	26.9	26.9	26.7	26.6	26.4	26.3	26.0	25.7	25.6	25.5	25.4	25.3	25.2
20	29.2	28.9	27.9	27.4	27.1	26.9	26.9	26.8	26.7	26.5	26.3	26.1	25.8	25.6	25.5	25.3	25.3	25.2
26	29.1	28.6	27.8	27.4	27.1	26.9	26.9	26.8	26.7	26.5	26.3	26.1	25.9	25.7	25.6	25.5	25.3	25.2
30	29.0	28.7	27.8	27.3	27.1	27.0	27.0	26.8	26.7	26.5	26.4	26.2	25.9	25.7	25.6	25.4	25.4	25.2
36	28.9	28.6	27.8	27.5	27.3	27.0	27.0	26.9	26.8	26.6	26.5	26.3	25.9	25.8	25.5	25.5	25.4	25.3
40	29.0	28.4	28.0	27.7	27.4	27.2	27.1	26.9	26.8	26.6	26.5	26.3	26.0	25.8	25.6	25.4	25.4	25.2
46	29.0	28.3	27.8	27.7	27.4	27.1	27.1	26.9	26.8	26.7	26.5	26.3	26.0	25.8	25.5	25.4	25.4	25.2
50	29.0	28.3	27.9	27.8	27.4	27.1	27.1	27.0	26.8	26.7	26.5	26.4	26.0	25.9	25.5	25.5	25.3	25.2
56	29.1	28.5	28.0	27.8	27.4	27.1	27.2	27.0	26.8	26.7	26.5	26.4	26.0	25.8	25.6	25.5	25.3	25.2
60	29.1	28.4	28.0	27.8	27.5	27.1	27.2	27.0	26.8	26.7	26.5	26.3	25.9	25.7	25.5	25.5	25.2	25.2
66	29.0	28.2	28.0	27.7	27.4	27.1	27.3	27.0	26.8	26.7	26.5	26.3	25.9	25.6	25.6	25.4	25.3	25.2
70	29.0	28.3	28.0	27.9	27.3	27.1	27.2	27.0	26.9	26.7	26.5	26.4	26.0	25.6	25.6	25.6	25.4	25.2
76	29.1	28.4	28.1	27.9	27.5	27.1	27.1	27.0	26.9	26.7	26.5	26.4	26.2	25.8	25.6	25.6	25.4	25.2
80	29.1	28.5	28.0	28.0	27.5	27.2	27.1	27.0	26.9	26.7	26.6	26.5	26.2	25.8	25.6	25.6	25.5	25.2
86	29.2	28.7	28.2	28.0	27.5	27.1	27.1	27.0	26.9	26.7	26.6	26.4	26.2	25.8	25.7	25.6	25.4	25.2
90	29.2	28.6	28.2	28.1	27.6	27.3	27.1	26.9	26.9	26.7	26.6	26.4	26.1	25.8	25.7	25.6	25.4	25.2
96	29.1	28.6	28.2	28.0	27.7	27.5	27.3	26.9	26.9	26.7	26.6	26.5	26.0	25.8	25.7	25.5	25.3	25.2
100	29.1	28.7	28.2	28.0	27.8	27.4	27.4	27.1	26.9	26.7	26.6	26.5	26.0	25.8	25.7	25.5	25.4	25.1
106	29.1	28.7	28.2	28.1	27.8	27.4	27.5	27.1	26.9	26.8	26.6	26.5	26.0	25.7	25.6	25.5	25.3	25.1
110	29.1	28.8	28.3	28.0	27.8	27.4	27.4	27.1	26.9	26.8	26.6	26.5	26.0	25.7	25.7	25.5	25.3	25.1
116	29.2	28.9	28.3	28.1	27.9	27.4	27.3	27.0	26.9	26.8	26.6	26.5	26.0	25.6	25.7	25.5	25.2	25.1
120	29.1	28.9	28.4	28.3	28.2	27.5	27.4	27.1	26.9	26.9	26.6	26.5	26.0	25.5	25.6	25.5	25.3	25.1
126	29.1	28.9	28.5	28.5	28.3	27.7	27.5	27.2	26.9	26.8	26.6	26.5	26.0	25.6	25.6	25.5	25.3	25.2
130	29.2	29.0	28.6	28.5	28.4	28.0	27.6	27.2	27.0	26.9	26.6	26.5	26.1	25.8	25.5	25.5	25.4	25.3
136	29.1	29.0	28.9	28.6	28.4	28.1	27.7	27.3	27.1	26.9	26.6	26.5	26.1	25.9	25.7	25.5	25.5	25.4
140	29.4	29.3	29.3	28.9	28.6	28.2	27.7	27.3	27.1	27.0	26.7	26.5	26.1	25.9	25.6	25.6	25.5	25.4
146	30.6	30.9	30.6	30.0	29.2	28.4	27.9	27.3	27.1	27.0	26.8	26.6	26.2	26.0	25.7	25.5	25.5	25.4
150	31.0	30.9	30.4	30.1	29.6	28.6	28.1	27.4	27.1	26.9	26.9	26.6	26.3	26.0	25.7	25.5	25.5	25.4
156	33.0	33.2	32.4	30.9	29.7	29.1	28.4	27.6	27.2	27.0	26.9	26.6	26.4	26.0	25.7	25.6	25.6	25.4
160	33.7	34.9	34.4	32.2	30.7	29.7	29.0	27.8	27.3	27.0	26.8	26.6	26.4	26.1	25.9	25.6	25.5	25.3
166	36.0	36.8	35.8	34.0	32.2	30.5	30.0	27.9	27.3	27.0	26.9	26.6	26.4	26.0	25.9	25.6	25.5	25.3
170	37.2	38.0	37.1	35.4	34.2	31.6	31.0	29.1	27.6	27.1	26.8	26.6	26.3	25.9	25.8	25.6	25.5	25.2
176	39.6	39.5	38.0	35.8	34.6	32.6	31.9	30.0	27.9	27.2	26.9	26.6	26.3	25.9	25.8	25.6	25.6	25.3
180	43.1	43.5	41.5	38.1	35.5	33.6	33.8	32.7	29.8	27.3	27.0	26.6	26.3	25.9	25.7	25.6	25.6	25.2
186	45.6	45.5	43.2	39.8	37.5	34.9	35.1	34.0	30.8	27.5	27.1	26.7	26.4	25.9	25.7	25.6	25.6	25.2

Temperature measurements (°C), bunk beds experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
190	48.6	48.9	45.7	42.6	40.0	37.7	36.8	35.6	31.2	27.6	27.1	26.8	26.3	25.7	25.6	25.5	25.6	25.3
196	50.8	52.1	49.8	46.1	42.6	39.6	39.0	37.3	31.0	27.7	27.2	26.8	26.3	25.8	25.6	25.6	25.6	25.3
200	56.8	56.7	53.6	47.6	44.7	42.0	40.6	38.3	31.1	27.7	27.2	26.9	26.2	25.9	25.7	25.6	25.6	25.4
206	57.2	59.6	58.5	52.7	48.8	46.3	43.6	42.0	33.2	28.0	27.3	27.0	26.4	26.0	25.8	25.6	25.6	25.4
210	64.3	67.7	64.4	58.5	56.4	52.1	50.5	46.6	36.7	28.9	27.6	27.1	26.6	25.9	25.8	25.7	25.7	25.5
216	69.9	69.8	67.5	62.3	58.5	57.2	57.6	52.6	41.1	29.4	27.8	27.3	26.9	26.4	26.0	25.8	25.7	25.5
220	74.5	77.6	75.0	69.8	64.7	61.8	61.9	59.1	45.8	29.4	27.9	27.5	27.2	26.9	26.4	26.1	25.8	25.6
226	88.3	91.4	86.2	78.2	74.7	69.9	73.2	68.7	52.5	30.0	28.2	27.7	27.4	27.1	26.9	26.5	26.1	25.7
230	97.6	101.1	98.4	90.3	87.0	81.3	84.2	81.2	59.4	34.6	28.7	28.0	27.7	27.4	27.2	26.9	26.6	26.3
236	115.3	120.9	112.6	100.2	94.1	89.9	91.8	84.8	69.4	38.3	29.6	28.3	28.0	27.7	27.5	27.1	26.8	26.5
240	146.4	147.0	140.3	120.8	114.5	103.5	113.8	116.1	99.6	57.3	33.2	29.6	28.6	28.2	28.0	27.5	27.2	26.9
246	168.8	176.4	173.8	159.0	155.1	144.7	153.2	164.3	147.0	91.1	39.2	31.5	30.2	29.4	28.7	28.1	27.6	27.5
250	229.4	247.7	234.7	207.4	192.2	177.4	180.7	182.6	182.5	202.4	99.8	58.1	35.4	32.2	30.4	29.3	28.6	28.6
256	268.6	301.5	288.6	265.8	256.1	233.0	251.9	261.6	256.7	287.9	205.2	132.8	55.1	37.8	34.5	31.0	31.1	31.3
260	267.5	287.1	283.7	275.1	264.2	256.1	263.4	268.4	264.3	278.6	247.4	190.6	75.2	45.9	39.9	32.2	32.1	34.5
266	268.3	287.1	292.1	284.3	281.7	272.9	279.6	288.7	295.4	303.3	270.9	231.7	85.8	53.1	42.6	33.5	35.6	36.3
270	285.4	312.0	319.8	310.5	306.0	289.1	283.8	287.3	291.2	301.1	282.2	261.2	102.5	68.0	47.9	39.9	40.4	36.8
276	622.1	665.4	664.5	567.6	509.8	472.8	496.9	515.3	438.8	344.2	253.4	187.9	112.8	79.1	60.8	46.8	42.1	39.5
280	337.7	356.0	356.3	357.3	350.0	333.0	332.6	323.3	326.8	309.0	239.8	152.7	106.4	74.7	56.8	39.9	37.9	38.3
286	290.3	309.0	308.5	307.4	303.6	300.0	301.2	302.3	306.9	309.0	261.5	180.7	105.1	72.5	52.3	42.2	38.1	38.2
290	292.7	318.2	323.6	313.8	303.2	294.0	296.6	304.1	307.3	313.8	272.5	206.1	111.1	72.0	51.5	39.3	37.7	37.5
296	297.6	319.8	322.6	315.8	307.0	297.8	303.5	314.6	317.0	325.2	287.3	207.7	113.5	77.7	52.9	40.4	38.9	38.7
300	300.9	327.4	330.0	324.6	318.9	305.2	305.4	311.8	321.0	328.4	299.2	222.6	112.8	80.4	63.3	47.1	40.8	39.8
306	302.2	323.6	330.4	322.9	311.7	303.4	306.1	313.3	317.9	323.4	286.3	186.5	109.7	72.3	59.2	48.4	44.5	41.8
310	298.7	323.6	326.3	324.6	315.1	307.5	310.4	316.2	318.9	332.7	296.8	214.1	116.6	73.8	56.7	48.8	47.3	43.0
316	302.8	326.5	331.3	326.5	318.9	304.2	308.7	312.5	312.2	317.0	275.4	186.8	117.7	77.5	57.0	49.7	47.9	46.1
320	313.9	333.4	333.9	329.3	324.3	317.0	319.9	324.4	314.5	287.8	230.0	170.1	112.0	81.6	61.9	50.0	47.4	44.1
326	318.3	334.0	338.6	334.7	330.6	319.3	324.6	329.6	321.9	317.2	242.0	166.2	111.0	85.3	62.8	51.7	46.3	44.4
330	317.3	327.9	326.2	322.2	317.3	314.1	323.2	329.4	329.7	338.5	296.7	195.2	115.4	84.0	61.9	50.7	48.1	46.1
336	308.9	327.3	327.8	324.2	319.4	314.6	324.8	337.2	340.1	341.9	281.7	173.8	112.2	81.5	63.9	52.1	50.3	46.6
340	313.9	336.0	341.4	334.4	330.1	319.6	318.5	323.6	333.8	346.4	293.2	204.2	117.4	80.2	61.9	53.4	51.6	47.8
346	314.9	335.6	342.5	336.9	327.4	316.8	319.1	332.4	335.0	340.6	288.2	206.9	117.9	84.3	62.4	54.9	51.7	47.3
350	321.4	346.6	348.1	340.9	337.1	325.3	328.5	333.1	340.4	346.6	298.2	206.6	116.4	85.6	66.9	54.7	52.1	47.6

Temperature measurements (°C), twin beds experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
-124	26.9	26.6	26.3	26.2	26.1	25.9	25.8	25.5	25.5	25.4	25.3	25.0	25.0	24.8	24.7	24.7	24.6	24.4
-118	26.8	26.6	26.3	26.2	26.1	25.9	25.8	25.5	25.4	25.2	25.1	25.0	24.9	24.8	24.7	24.7	24.6	24.4
-114	26.8	26.6	26.3	26.1	26.1	26.0	25.7	25.5	25.5	25.3	25.2	24.9	24.9	24.8	24.8	24.7	24.6	24.5
-108	26.8	26.6	26.3	26.2	26.1	26.0	25.7	25.5	25.5	25.3	25.2	25.0	24.9	24.8	24.8	24.7	24.6	24.5
-104	26.7	26.6	26.3	26.2	26.2	26.0	25.6	25.6	25.5	25.4	25.2	25.0	24.9	24.8	24.8	24.8	24.6	24.6
-98	26.8	26.5	26.3	26.1	26.1	25.9	25.7	25.4	25.4	25.2	25.2	25.0	24.9	24.8	24.9	24.8	24.6	24.5
-94	26.7	26.5	26.2	26.1	26.1	25.9	25.6	25.4	25.3	25.2	25.1	25.0	24.9	24.8	24.9	24.8	24.6	24.6
-88	26.7	26.5	26.2	26.1	26.1	25.8	25.7	25.4	25.3	25.2	25.1	25.0	24.9	24.8	24.9	24.9	24.7	24.6
-84	26.6	26.5	26.2	26.1	26.0	25.8	25.7	25.5	25.3	25.2	25.1	25.0	24.9	24.8	24.9	24.9	24.7	24.6
-78	26.6	26.4	26.2	26.1	26.1	25.8	25.6	25.4	25.3	25.2	25.2	25.0	24.9	24.8	24.9	24.9	24.8	24.6
-74	26.7	26.4	26.2	26.1	26.1	25.9	25.7	25.4	25.4	25.3	25.2	25.0	24.9	24.8	24.9	24.9	24.8	24.6
-68	26.8	26.4	26.2	26.0	25.9	25.8	25.7	25.5	25.5	25.3	25.3	25.0	24.8	24.7	24.9	24.9	24.8	24.7
-64	26.8	26.4	26.2	26.0	25.9	25.7	25.7	25.5	25.5	25.4	25.3	25.1	24.8	24.7	24.9	24.9	24.8	24.7
-58	26.8	26.4	26.2	26.0	25.9	25.8	25.6	25.5	25.5	25.3	25.3	25.1	24.8	24.7	24.9	24.9	24.7	24.7
-54	26.8	26.5	26.3	26.1	26.0	25.9	25.8	25.6	25.5	25.4	25.3	25.0	24.9	24.8	24.9	24.9	24.8	24.7
-48	26.9	26.8	26.5	26.2	26.1	26.1	25.9	25.6	25.6	25.4	25.3	25.1	24.9	24.8	24.9	25.0	24.9	24.7
-44	26.8	26.6	26.4	26.3	26.2	26.1	26.0	25.7	25.6	25.4	25.3	25.1	24.9	24.8	24.9	25.0	24.8	24.7
-38	26.7	26.5	26.4	26.3	26.2	26.2	26.0	25.8	25.8	25.7	25.6	25.2	25.0	24.9	25.0	25.0	24.8	24.8
-34	26.5	26.5	26.3	26.2	26.1	26.1	26.0	25.8	25.8	25.6	25.5	25.2	25.1	24.9	25.1	25.0	24.8	24.8
-28	26.6	26.4	26.3	26.1	26.1	26.1	26.1	25.8	25.7	25.5	25.5	25.2	25.1	24.9	25.0	25.0	24.9	24.8
-24	26.6	26.4	26.3	26.2	26.2	26.1	26.1	25.7	25.6	25.5	25.5	25.2	25.1	24.9	25.0	25.0	24.9	24.8
-18	26.5	26.4	26.2	26.2	26.2	26.2	26.1	25.8	25.6	25.5	25.4	25.2	25.1	24.9	24.9	25.0	24.9	24.8
-14	26.6	26.4	26.2	26.2	26.1	26.2	26.1	25.8	25.7	25.5	25.4	25.1	25.0	24.8	24.8	24.8	24.8	24.7
-8	26.7	26.5	26.1	26.1	26.1	26.2	26.1	25.8	25.7	25.5	25.4	25.1	24.8	24.7	24.8	24.7	24.6	24.5
-4	27.0	26.6	26.2	26.2	26.2	26.2	26.0	25.8	25.7	25.5	25.4	25.1	24.9	24.8	24.8	24.8	24.7	24.6
2	27.0	26.6	26.2	26.2	26.2	26.2	26.0	25.8	25.7	25.6	25.5	25.1	25.0	24.8	24.8	24.8	24.8	24.6
6	26.9	26.5	26.3	26.2	26.2	26.2	26.1	25.8	25.7	25.6	25.6	25.3	25.1	24.8	24.8	24.8	24.7	24.6
12	26.9	26.5	26.4	26.2	26.3	26.2	26.1	25.9	25.8	25.6	25.6	25.3	25.2	24.9	24.9	24.8	24.7	24.6
16	27.6	27.2	26.5	26.4	26.3	26.2	26.1	25.9	25.8	25.7	25.6	25.3	25.2	25.0	24.9	24.9	24.6	24.6
22	27.5	27.0	26.9	26.5	26.3	26.3	26.1	25.9	25.8	25.7	25.6	25.4	25.2	25.1	24.9	24.9	24.6	24.6
26	27.5	27.0	26.9	26.6	26.5	26.3	26.2	26.0	25.9	25.7	25.7	25.4	25.3	25.0	24.9	24.9	24.6	24.6
32	27.4	26.9	26.9	26.7	26.7	26.6	26.2	26.0	25.9	25.8	25.7	25.4	25.3	25.1	24.9	24.9	24.6	24.7
36	27.3	27.3	26.9	26.8	26.7	26.7	26.4	26.1	26.0	25.8	25.8	25.4	25.3	24.9	24.8	24.7	24.6	24.6
42	27.3	27.3	27.0	26.8	26.8	26.8	26.6	26.3	26.1	25.9	25.8	25.4	25.2	24.9	24.8	24.7	24.5	24.5
46	27.3	27.4	27.1	27.0	26.9	26.9	26.7	26.3	26.1	25.9	25.7	25.3	25.2	24.8	24.7	24.6	24.4	24.5
52	27.3	27.3	27.0	26.9	26.9	26.9	26.7	26.2	26.1	25.9	25.7	25.4	25.2	24.9	24.8	24.6	24.5	24.5
56	27.2	27.1	26.9	26.9	26.9	26.9	26.7	26.2	26.2	25.9	25.8	25.4	25.3	24.9	24.8	24.7	24.5	24.6
62	27.2	27.3	27.0	26.9	26.9	27.0	26.8	26.4	26.0	25.9	25.8	25.4	25.2	24.8	24.7	24.7	24.5	24.6
66	27.5	27.6	27.2	27.0	27.0	27.0	26.8	26.6	26.2	25.9	25.7	25.4	25.2	24.8	24.7	24.6	24.4	24.5
72	27.8	27.8	27.4	27.2	27.1	27.0	26.8	26.6	26.3	25.8	25.7	25.4	25.2	24.9	24.8	24.7	24.5	24.5
76	28.0	28.3	27.9	27.4	27.2	27.1	27.0	26.6	26.3	26.0	25.7	25.4	25.3	24.9	24.8	24.7	24.5	24.5
82	28.7	28.7	28.2	27.7	27.5	27.3	27.1	26.7	26.5	26.0	25.7	25.4	25.3	25.0	24.8	24.7	24.5	24.5
86	29.2	29.4	29.0	28.2	27.9	27.8	27.4	26.9	26.5	26.0	25.7	25.5	25.2	24.9	24.8	24.7	24.6	24.6
92	29.8	30.0	29.6	28.6	28.2	28.3	27.6	27.1	26.5	26.0	25.7	25.5	25.1	24.9	24.8	24.7	24.5	24.5
96	30.9	30.6	29.5	28.9	28.7	29.1	28.2	27.1	26.5	26.0	25.8	25.5	25.2	24.9	24.8	24.7	24.6	24.6
102	31.7	31.9	31.0	29.7	29.4	30.0	28.7	27.6	26.6	26.0	25.9	25.6	25.3	25.0	24.9	24.7	24.6	24.6
106	33.7	33.7	32.5	30.9	30.7	30.9	29.7	28.1	26.6	26.1	26.0	25.6	25.4	25.1	25.0	24.9	24.7	24.6
112	35.1	35.2	33.9	32.3	32.0	31.9	30.7	28.4	26.6	26.2	26.0	25.7	25.5	25.3	25.1	25.0	24.8	24.7
116	37.7	37.6	36.9	35.2	33.9	34.2	32.1	29.3	26.7	26.2	26.1	25.8	25.5	25.3	25.2	25.0	24.8	24.7
122	41.3	40.6	39.5	38.3	37.8	37.3	34.6	32.0	27.0	26.4	26.2	25.9	25.6	25.4	25.2	25.2	24.9	24.8
126	44.4	44.8	44.0	41.2	39.4	39.9	35.9	32.5	26.9	26.5	26.3	26.1	25.7	25.6	25.2	25.2	25.0	24.8
132	49.1	50.3	47.7	44.4	43.2	42.9	39.2	32.3	27.1	26.7	26.6	26.3	26.0	25.7	25.2	25.3	25.0	24.9
136	52.9	54.2	51.7	47.0	45.0	46.2	42.4	35.1	28.2	27.0	26.8	26.6	26.2	26.0	25.5	25.4	25.1	24.9
142	56.1	57.5	57.1	52.7	48.7	50.8	48.0	41.3	29.7	27.9	27.3	26.9	26.5	26.2	25.8	25.6	25.2	25.0
146	63.1	63.9	58.6	53.6	51.0	54.6	51.3	44.6	30.9	28.3	27.7	27.3	26.8	26.6	25.9	25.9	25.4	25.1
152	67.5	68.7	65.0	60.0	55.8	59.9	56.8	51.1	32.5	29.2	28.3	27.6	27.1	26.9	26.0	26.0	25.5	25.3
156	74.7	76.8	73.8	67.0	63.2	65.3	61.7	56.6	35.8	30.5	29.0	28.1	27.6	27.1	26.3	26.3	25.6	25.3
162	82.9	84.7	83.9	75.1	68.6	70.7	68.5	63.1	43.1	32.1	29.6	28.7	27.9	27.5	26.6	26.8	25.9	25.5
166	86.6	89.1	86.6	81.5	75.9	80.8	76.4	69.4	47.3	33.3	30.5	29.3	28.2	28.1	27.1	27.7	26.4	25.7
172	101.9	103.3	101.1	94.4	86.1	91.5	86.3	80.3	69.0	38.8	33.9	30.6	29.4	29.3	28.0	28.6	27.0	26.0
176	115.6	116.8	114.4	108.2	95.3	105.2	103.1	99.5	80.9	43.4	37.9	32.0	30.7	30.7	28.9	29.6	27.4	26.4
182	128.4	130.1	129.7	124.1	117.0	121.2	116.1	110.6	94.4	47.5	40.7	34.1	31.4	31.6	30.4	30.4	28.1	26.7
186	138.3	143.5	145.9	139.3	135.2	135.7	130.0	124.1	112.1	61.4	48.4	37.4	33.5	33.4	31.8	32.2	29.4	27.5

Temperature measurements (°C), twin beds experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
192	158.2	164.0	167.8	164.3	152.9	150.2	144.7	136.9	128.9	93.0	60.2	39.4	35.2	34.8	32.5	33.2	31.1	28.5
196	172.0	178.7	182.0	176.8	167.3	171.0	164.1	156.9	144.7	113.5	73.3	44.1	37.8	37.4	33.2	33.9	32.5	29.5
202	183.9	189.7	192.2	189.0	180.7	183.3	177.3	172.3	159.5	140.2	90.8	49.1	41.2	39.5	35.3	37.3	33.1	29.9
206	192.1	198.5	203.7	202.1	195.2	193.1	187.7	182.9	175.2	157.6	112.6	54.0	41.6	37.4	34.4	36.1	32.8	30.0
212	212.4	215.0	215.4	212.8	203.2	207.2	202.8	199.1	183.4	173.0	133.6	63.5	46.8	41.3	36.3	36.7	33.5	31.0
216	220.9	230.3	236.7	234.6	223.7	217.5	214.9	215.2	200.9	189.5	173.6	71.5	48.7	41.6	38.2	36.4	35.4	33.8
222	236.3	244.8	249.8	247.1	238.2	235.1	230.4	226.3	216.7	207.6	195.7	104.7	57.0	47.0	40.5	42.4	36.7	33.4
226	251.5	257.3	263.3	261.9	251.5	243.6	239.7	239.3	230.6	221.5	212.9	146.2	73.6	52.5	45.5	45.6	39.0	34.1
232	265.8	271.9	276.5	275.9	270.4	265.9	256.9	258.0	249.8	249.2	243.1	195.9	100.9	56.2	48.9	47.4	40.5	37.2
236	279.1	291.7	303.0	297.9	287.4	296.7	287.8	292.8	284.4	275.1	266.3	240.2	133.5	69.3	54.0	53.4	44.4	39.6
242	317.3	323.1	327.1	320.8	316.0	322.1	312.3	314.6	311.9	304.3	301.2	281.5	190.1	82.7	61.6	57.3	49.7	45.4
246	352.6	359.1	368.8	366.8	352.4	347.9	338.2	333.2	330.1	323.1	325.3	311.1	229.9	121.8	69.6	62.8	53.1	45.6
252	382.7	387.6	397.9	387.5	375.9	371.8	374.6	373.2	366.0	364.0	363.3	368.5	328.9	98.6	67.8	61.2	52.2	46.7
256	405.3	411.7	422.9	418.0	412.1	411.5	392.8	384.5	382.1	382.1	381.7	387.6	372.9	215.6	73.8	70.0	59.2	51.8
262	456.6	459.9	471.1	458.2	450.2	445.5	432.2	430.3	426.3	422.1	420.5	418.0	398.4	223.0	77.3	76.3	58.5	54.2
266	474.7	482.0	495.4	488.8	481.3	477.0	468.0	463.0	459.6	450.7	445.1	439.2	424.2	341.7	89.1	87.3	73.4	63.0
272	503.9	505.7	525.9	522.9	513.0	500.3	490.8	482.5	474.4	468.5	463.1	448.3	430.7	379.3	97.2	91.7	75.7	66.1
276	525.5	532.7	548.0	550.8	540.4	529.9	526.0	512.5	500.0	492.2	488.6	474.2	456.6	423.3	136.6	104.8	82.7	73.5
282	498.1	515.9	524.5	531.2	529.2	523.6	511.0	508.3	506.7	500.7	493.7	480.1	456.3	421.3	171.4	111.8	91.7	79.9
286	531.1	539.2	547.2	550.5	550.1	549.7	535.1	525.1	517.7	512.5	508.1	499.4	485.6	462.6	187.8	120.4	103.3	88.5
292	542.6	550.6	556.5	557.8	557.2	551.4	541.1	529.8	521.0	516.2	509.0	494.9	478.8	447.6	173.9	130.6	107.4	96.3
296	546.3	557.0	570.9	575.2	576.7	572.9	555.8	542.4	535.0	528.1	522.5	499.8	484.3	462.9	210.8	129.1	113.7	100.1
302	555.5	561.2	573.7	581.4	580.0	575.4	563.1	554.3	545.8	538.5	532.7	517.2	501.7	462.1	196.6	137.3	122.7	108.8
306	548.9	566.4	574.4	572.2	563.5	558.7	551.3	547.9	543.0	540.0	536.1	524.8	512.4	481.0	267.6	145.6	131.1	108.5
312	549.7	560.9	573.0	575.7	579.5	574.8	564.9	558.6	546.9	542.6	538.2	531.6	518.1	488.3	331.9	152.9	132.9	114.0
316	556.9	565.3	574.2	581.2	581.0	572.9	561.0	554.8	551.3	542.8	539.3	526.0	512.4	489.4	336.6	164.0	147.0	125.0
322	563.0	576.1	583.3	586.4	584.3	577.4	570.4	562.7	562.4	558.7	554.7	541.3	532.0	514.3	402.4	175.1	152.1	134.3
326	559.7	568.3	577.4	580.8	581.5	572.7	563.8	560.1	556.2	551.6	547.1	531.2	520.1	497.2	436.6	184.9	152.9	139.0
332	551.8	559.3	565.1	573.8	574.8	563.4	562.4	559.9	555.9	555.3	550.6	540.5	529.9	514.2	400.2	195.3	162.2	147.8
336	581.5	595.2	601.2	603.8	604.8	598.0	590.3	581.7	576.1	572.3	566.3	551.4	541.8	525.4	366.8	202.9	165.6	151.2
342	565.0	582.7	595.9	600.4	603.5	605.0	590.3	579.6	572.5	566.6	560.1	548.7	538.3	520.7	345.5	205.7	165.5	148.5
346	581.4	594.3	600.0	604.4	604.0	603.1	594.5	589.8	582.4	578.4	571.7	557.2	545.6	525.4	380.7	212.7	174.8	153.2
352	605.2	628.2	638.0	635.2	624.0	616.7	608.7	603.8	598.1	593.0	587.3	574.1	564.3	548.5	476.6	220.1	187.9	171.9
356	574.0	590.4	590.3	598.1	603.7	600.3	591.1	589.6	588.4	588.6	583.6	573.4	567.1	552.2	495.6	260.7	197.5	184.5
362	599.9	615.8	621.7	623.9	623.9	619.4	611.1	605.2	601.4	598.2	595.5	583.5	574.0	558.8	503.9	268.3	209.8	188.6
366	629.0	645.5	652.9	656.3	653.5	645.4	633.4	621.4	614.2	606.4	599.9	585.5	575.8	562.2	512.5	331.0	210.2	188.4
372	615.5	634.0	639.8	641.0	641.2	632.9	622.5	613.7	614.2	601.4	595.0	585.3	572.8	558.1	412.6	253.2	197.1	186.5
376	623.2	641.1	649.6	651.3	649.0	642.9	638.0	628.4	625.6	617.9	610.1	590.2	580.4	566.4	511.6	293.9	206.8	182.2
382	615.3	629.8	632.9	637.2	638.8	631.1	625.4	616.2	612.4	606.8	600.2	592.2	582.3	565.1	417.5	265.1	213.1	188.1
386	624.9	641.8	650.6	651.4	648.9	642.6	636.7	628.2	621.8	612.8	606.1	593.3	579.7	566.6	465.1	269.5	226.2	206.4
392	633.1	648.8	658.4	656.2	648.5	639.7	631.0	626.2	620.4	614.9	607.2	592.1	581.2	566.8	463.1	310.7	227.3	196.1
396	639.1	651.9	655.1	653.9	649.5	642.3	629.5	627.3	619.4	613.7	608.5	601.0	587.5	582.3	508.6	381.1	247.0	197.0
402	654.5	673.1	685.5	688.4	683.3	673.5	665.1	661.2	657.1	650.6	642.1	636.7	627.0	611.5	555.9	413.6	258.4	200.7
406	661.1	672.2	675.0	679.9	675.0	662.4	656.1	650.7	644.9	640.8	633.5	629.0	618.9	603.6	539.3	391.6	257.8	212.3
412	693.0	703.0	698.5	702.0	703.0	695.4	693.8	685.1	678.2	668.6	660.3	644.7	634.5	604.0	532.9	377.3	265.9	213.7
416	719.0	732.0	735.0	737.0	727.0	713.0	706.0	701.0	694.9	686.4	681.2	674.8	662.3	640.8	592.8	515.1	312.4	223.1
422	745.0	756.0	753.0	748.0	736.0	722.0	720.0	716.0	711.0	705.0	695.6	680.0	661.3	636.4	594.8	484.3	304.4	219.2
426	786.0	789.0	776.0	778.0	771.0	750.0	738.0	724.0	714.0	703.0	694.2	689.2	665.4	615.7	502.4	392.9	287.9	216.0
432	810.0	812.0	794.0	807.0	791.0	745.0	731.0	723.0	715.0	700.0	690.7	676.1	648.9	575.1	462.8	388.8	298.8	242.6
436	791.0	793.0	775.0	773.0	766.0	742.0	732.0	714.0	706.0	696.6	686.5	678.0	664.2	630.7	505.5	376.5	285.2	232.4
442	808.0	813.0	806.0	809.0	801.0	775.0	761.0	742.0	731.0	716.0	706.0	695.0	680.3	660.1	594.2	480.9	308.7	260.5
446	824.0	827.0	814.0	817.0	808.0	775.0	766.0	754.0	746.0	736.0	727.0	706.0	683.0	632.7	500.3	386.8	287.5	238.0
452	810.0	813.0	793.0	792.0	781.0	753.0	747.0	737.0	733.0	727.0	714.0	699.8	673.6	626.2	470.2	365.9	279.0	226.1
456	815.0	821.0	805.0	809.0	810.0	766.0	753.0	735.0	725.0	715.0	702.0	681.0	652.1	563.9	415.1	355.9	263.0	225.3
462	824.0	825.0	808.0	802.0	802.0	755.0	751.0	733.0	724.0	728.0	715.0	695.3	662.9	579.7	423.8	354.0	282.6	239.5
466	799.0	810.0	801.0	800.0	807.0	754.0	745.0	731.0	726.0	719.0	710.0	699.7	680.6	630.8	485.5	363.2	288.6	253.1

Temperature measurements (°C), twin beds experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
-124	24.6	24.6	24.5	24.6	24.6	24.5	24.5	24.4	24.5	24.4	24.4	24.4	24.5	24.5	24.4	24.4	24.3	24.2
-118	24.6	24.7	24.5	24.6	24.5	24.6	24.5	24.5	24.4	24.4	24.4	24.4	24.5	24.4	24.4	24.4	24.3	24.1
-114	24.6	24.6	24.6	24.7	24.6	24.6	24.6	24.4	24.4	24.4	24.3	24.4	24.4	24.5	24.4	24.3	24.2	24.2
-108	24.7	24.8	24.6	24.7	24.7	24.6	24.6	24.4	24.4	24.4	24.3	24.4	24.4	24.4	24.3	24.3	24.3	24.3
-104	24.8	24.8	24.7	24.7	24.8	24.6	24.6	24.5	24.4	24.4	24.3	24.4	24.4	24.4	24.4	24.4	24.4	24.4
-98	24.7	24.8	24.7	24.8	24.8	24.6	24.6	24.4	24.4	24.3	24.3	24.4	24.4	24.3	24.3	24.4	24.4	24.3
-94	24.7	24.8	24.7	24.8	24.7	24.6	24.5	24.4	24.4	24.3	24.3	24.3	24.4	24.3	24.3	24.3	24.4	24.3
-88	24.7	24.8	24.7	24.8	24.8	24.7	24.6	24.4	24.4	24.3	24.3	24.4	24.4	24.4	24.4	24.3	24.4	24.3
-84	24.7	24.7	24.7	24.7	24.7	24.6	24.5	24.4	24.3	24.2	24.2	24.3	24.3	24.3	24.3	24.3	24.3	24.2
-78	24.7	24.8	24.7	24.8	24.7	24.7	24.6	24.5	24.4	24.4	24.3	24.3	24.4	24.3	24.3	24.3	24.3	24.3
-74	24.7	24.8	24.7	24.8	24.8	24.7	24.7	24.4	24.4	24.4	24.3	24.4	24.4	24.3	24.3	24.3	24.3	24.2
-68	24.7	24.7	24.7	24.7	24.7	24.6	24.6	24.4	24.4	24.3	24.3	24.3	24.4	24.3	24.3	24.3	24.3	24.2
-64	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.5	24.5	24.4	24.3	24.3	24.4	24.3	24.3	24.3	24.3	24.2
-58	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.5	24.5	24.4	24.4	24.4	24.4	24.4	24.4	24.3	24.4	24.2
-54	24.7	24.7	24.7	24.8	24.8	24.7	24.7	24.5	24.6	24.4	24.3	24.4	24.4	24.5	24.4	24.3	24.3	24.2
-48	24.7	24.8	24.7	24.8	24.8	24.7	24.7	24.5	24.5	24.4	24.4	24.4	24.4	24.5	24.4	24.3	24.2	24.1
-44	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.5	24.5	24.4	24.4	24.4	24.4	24.5	24.4	24.2	24.2	24.1
-38	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.5	24.5	24.4	24.4	24.4	24.5	24.5	24.4	24.3	24.2	24.2
-34	24.7	24.8	24.7	24.7	24.7	24.6	24.6	24.5	24.5	24.4	24.3	24.4	24.4	24.3	24.3	24.2	24.2	24.1
-28	24.7	24.8	24.7	24.8	24.6	24.6	24.5	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.3	24.3	24.1
-24	24.7	24.7	24.7	24.7	24.7	24.6	24.5	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.3	24.3	24.1
-18	24.7	24.8	24.7	24.7	24.7	24.7	24.6	24.4	24.5	24.3	24.3	24.4	24.4	24.4	24.4	24.3	24.3	24.2
-14	24.7	24.7	24.6	24.7	24.6	24.7	24.6	24.4	24.4	24.3	24.3	24.3	24.4	24.4	24.3	24.3	24.3	24.2
-8	24.7	24.7	24.6	24.7	24.7	24.7	24.6	24.4	24.4	24.3	24.3	24.4	24.4	24.4	24.4	24.3	24.3	24.0
-4	24.6	24.7	24.6	24.8	24.7	24.6	24.5	24.4	24.4	24.3	24.3	24.3	24.3	24.4	24.4	24.3	24.3	24.1
2	24.6	24.7	24.6	24.7	24.6	24.6	24.5	24.4	24.4	24.3	24.3	24.4	24.4	24.4	24.4	24.3	24.3	24.1
6	24.6	24.7	24.6	24.7	24.6	24.6	24.5	24.5	24.4	24.4	24.4	24.4	24.4	24.5	24.4	24.4	24.3	24.1
12	24.7	24.7	24.7	24.7	24.6	24.6	24.5	24.4	24.4	24.4	24.4	24.4	24.5	24.5	24.5	24.3	24.3	24.1
16	24.6	24.7	24.6	24.7	24.6	24.5	24.5	24.4	24.4	24.4	24.4	24.4	24.5	24.4	24.5	24.3	24.2	24.0
22	24.6	24.6	24.6	24.6	24.6	24.5	24.4	24.5	24.4	24.4	24.4	24.4	24.4	24.5	24.3	24.3	24.3	24.0
26	24.6	24.6	24.6	24.6	24.6	24.6	24.5	24.4	24.4	24.3	24.4	24.5	24.4	24.5	24.4	24.3	24.3	24.1
32	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.5	24.4	24.3	24.4	24.5	24.4	24.5	24.4	24.4	24.4	24.1
36	24.6	24.6	24.6	24.7	24.6	24.6	24.6	24.5	24.4	24.3	24.3	24.5	24.5	24.6	24.5	24.4	24.3	24.1
42	24.7	24.7	24.7	24.7	24.7	24.6	24.6	24.5	24.5	24.3	24.3	24.4	24.4	24.5	24.5	24.4	24.3	24.1
46	24.8	24.8	24.7	24.7	24.7	24.6	24.6	24.5	24.5	24.3	24.3	24.3	24.4	24.5	24.5	24.3	24.2	24.0
52	24.7	24.8	24.8	24.8	24.6	24.6	24.5	24.5	24.4	24.3	24.3	24.3	24.4	24.4	24.3	24.2	24.2	24.0
56	24.8	25.0	24.9	25.0	24.8	24.6	24.5	24.5	24.4	24.3	24.2	24.3	24.3	24.3	24.3	24.2	24.2	24.0
62	24.9	25.0	24.9	24.9	24.9	24.8	24.6	24.5	24.4	24.3	24.2	24.4	24.4	24.4	24.4	24.3	24.2	24.0
66	24.8	24.9	24.8	24.8	24.8	24.7	24.6	24.5	24.4	24.3	24.3	24.3	24.3	24.4	24.3	24.2	24.1	24.0
72	24.9	24.9	24.9	24.8	24.8	24.7	24.7	24.5	24.5	24.3	24.3	24.3	24.4	24.4	24.3	24.2	24.1	24.0
76	24.8	25.0	24.9	24.9	24.8	24.7	24.6	24.6	24.4	24.3	24.3	24.3	24.3	24.3	24.3	24.2	24.1	24.0
82	24.8	24.9	24.8	24.8	24.7	24.7	24.6	24.6	24.5	24.3	24.3	24.3	24.3	24.3	24.2	24.2	24.1	24.0
86	24.8	24.9	24.8	24.8	24.7	24.7	24.7	24.6	24.5	24.4	24.3	24.3	24.3	24.4	24.3	24.2	24.1	24.0
92	24.8	24.9	24.8	24.8	24.7	24.8	24.7	24.6	24.5	24.4	24.4	24.4	24.3	24.4	24.3	24.2	24.1	24.0
96	24.8	24.9	24.8	24.8	24.8	24.7	24.6	24.6	24.5	24.3	24.3	24.3	24.4	24.4	24.3	24.2	24.1	24.0
102	24.9	25.0	24.9	24.9	24.8	24.7	24.6	24.5	24.5	24.3	24.3	24.3	24.3	24.4	24.3	24.3	24.1	24.0
106	25.0	25.0	24.9	25.0	24.9	24.8	24.6	24.5	24.5	24.4	24.3	24.4	24.4	24.4	24.3	24.2	24.1	23.9
112	24.9	25.0	25.0	25.0	24.9	24.8	24.7	24.5	24.5	24.4	24.3	24.4	24.4	24.4	24.3	24.2	24.1	24.0
116	24.9	25.0	24.9	24.9	24.9	24.8	24.7	24.5	24.5	24.4	24.4	24.4	24.4	24.4	24.3	24.2	24.1	24.0
122	24.9	24.9	24.9	24.9	24.9	24.8	24.7	24.6	24.6	24.5	24.5	24.5	24.5	24.5	24.3	24.2	24.1	24.0
126	25.0	25.2	25.0	25.0	24.9	24.9	24.7	24.7	24.6	24.5	24.5	24.5	24.5	24.5	24.4	24.2	24.2	24.0
132	25.0	25.2	25.0	25.1	24.9	24.8	24.8	24.6	24.6	24.5	24.5	24.6	24.5	24.5	24.4	24.2	24.1	23.9
136	25.1	25.3	25.0	25.1	24.9	24.9	24.7	24.6	24.6	24.5	24.5	24.6	24.6	24.5	24.4	24.2	24.1	23.9
142	25.3	25.5	25.2	25.1	25.1	24.9	24.8	24.7	24.7	24.6	24.6	24.7	24.6	24.5	24.4	24.2	24.1	23.9
146	25.2	25.4	25.2	25.2	25.1	25.0	24.8	24.7	24.7	24.6	24.5	24.6	24.6	24.6	24.5	24.4	24.2	23.9
152	25.6	26.1	25.6	25.5	25.3	25.2	24.9	24.7	24.7	24.5	24.6	24.6	24.6	24.7	24.6	24.5	24.3	24.0
156	27.0	27.1	26.0	25.6	25.3	25.2	24.9	24.7	24.6	24.5	24.5	24.5	24.5	24.7	24.5	24.4	24.3	24.1
162	28.4	28.8	26.7	25.8	25.3	25.3	24.8	24.7	24.7	24.5	24.5	24.5	24.6	24.7	24.6	24.5	24.4	24.2
166	29.9	29.8	28.3	27.1	25.6	25.4	25.0	24.9	24.8	24.6	24.5	24.5	24.5	24.6	24.6	24.4	24.4	24.2
172	30.5	30.5	28.4	27.3	26.5	26.1	25.3	25.0	24.9	24.8	24.6	24.6	24.6	24.6	24.5	24.4	24.3	24.2
176	32.5	32.0	29.5	29.0	27.6	27.1	26.4	25.5	25.0	24.8	24.7	24.7	24.7	24.6	24.6	24.4	24.4	24.2
182	37.4	37.6	32.8	31.1	29.2	28.1	27.0	25.5	25.3	24.9	24.8	24.8	24.8	24.7	24.6	24.5	24.4	24.2
186	38.1	39.1	36.2	35.0	31.2	30.0	27.9	26.6	26.3	25.2	24.9	25.0	24.9	24.8	24.7	24.5	24.4	24.2

Temperature measurements (°C), twin beds experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
192	43.7	44.5	40.8	39.2	33.7	32.8	29.4	28.4	27.9	25.7	25.1	25.1	25.1	24.8	24.7	24.6	24.4	24.2
196	44.0	46.5	44.9	44.6	38.2	34.3	31.1	30.3	28.7	25.6	25.2	25.1	25.0	24.8	24.7	24.6	24.4	24.2
202	49.9	54.0	51.2	50.8	43.3	37.0	33.8	31.3	27.0	25.6	25.4	25.2	25.1	24.9	24.7	24.5	24.4	24.3
206	61.6	65.9	61.5	58.5	50.4	42.2	37.9	35.0	28.3	25.4	25.2	25.2	24.9	24.8	24.8	24.7	24.5	24.3
212	66.4	69.2	65.9	65.9	57.4	48.9	43.8	43.9	33.1	25.7	25.5	25.4	25.3	25.0	24.9	24.8	24.6	24.3
216	66.6	70.1	68.5	69.2	62.2	58.7	49.0	42.4	29.3	25.9	25.7	25.6	25.3	25.1	25.0	24.8	24.6	24.3
222	69.6	74.0	74.0	74.9	69.4	65.6	55.3	51.8	31.9	26.4	26.1	25.9	25.4	25.3	25.2	24.9	24.7	24.5
226	80.3	83.4	82.5	83.8	78.1	73.4	62.1	56.1	35.1	28.6	27.2	27.0	26.3	25.8	25.5	25.3	25.0	24.7
232	88.3	94.4	92.2	94.5	85.8	81.5	65.9	66.0	46.4	30.0	27.3	27.1	27.1	26.3	25.9	25.6	25.2	24.8
236	94.2	100.6	98.3	98.0	93.1	85.9	74.8	73.7	47.1	32.0	27.8	27.2	27.0	26.4	26.2	25.7	25.3	24.9
242	101.2	107.6	106.5	106.5	99.6	91.0	82.2	80.7	60.2	39.2	31.9	27.9	26.8	26.4	26.5	26.0	25.6	25.2
246	109.3	117.4	114.0	114.8	105.6	101.4	89.1	87.1	75.1	45.2	34.0	28.2	26.9	26.7	26.8	26.2	25.7	25.5
252	119.9	126.2	123.4	120.4	114.6	107.5	93.8	94.6	80.3	50.2	38.8	29.9	27.6	27.1	27.5	26.7	26.2	25.7
256	138.6	142.7	138.5	137.4	125.3	125.5	110.9	107.3	99.4	66.0	47.5	31.8	28.7	27.8	28.1	26.9	26.4	26.2
262	141.9	144.4	139.8	140.1	133.1	130.0	121.5	117.8	110.8	77.5	51.8	39.5	29.2	28.9	28.9	27.6	27.2	26.8
266	150.0	154.1	151.6	152.7	145.7	140.4	129.9	124.3	114.8	87.8	65.1	48.7	31.1	29.8	29.8	28.4	28.0	27.2
272	159.1	165.0	162.2	163.6	157.1	148.8	133.0	131.6	124.1	96.1	73.4	55.7	32.9	30.6	30.5	29.4	28.4	27.9
276	170.6	179.0	177.4	178.7	168.1	160.4	147.0	143.1	138.3	111.2	82.6	59.5	35.2	31.8	31.9	29.7	28.9	28.2
282	177.5	184.2	182.2	185.4	179.0	179.4	167.5	158.7	146.7	122.8	86.0	61.1	38.0	33.3	33.3	31.1	29.7	28.3
286	182.1	191.3	188.8	191.2	180.7	161.3	155.6	153.3	136.0	114.3	94.7	77.0	38.0	33.6	33.5	31.5	29.3	28.3
292	188.1	197.5	196.7	197.9	188.4	174.4	160.3	154.9	145.6	121.7	102.3	81.8	42.3	35.6	34.2	32.0	29.9	28.5
296	188.1	199.0	199.1	201.7	195.9	190.7	176.5	162.3	149.9	126.3	105.1	88.0	44.4	37.0	34.9	31.8	29.8	28.4
302	190.6	202.6	202.6	205.1	200.9	195.2	186.6	177.1	158.0	132.8	111.2	95.0	46.4	37.5	36.6	32.0	30.6	28.4
306	208.2	215.5	211.1	211.2	200.0	182.3	177.3	173.9	158.6	134.0	115.2	98.3	49.6	38.0	36.1	32.4	29.4	29.0
312	203.7	214.0	214.9	216.1	203.8	197.4	183.4	173.7	162.4	139.8	120.2	98.7	50.9	38.0	35.3	31.9	30.1	29.2
316	216.9	230.0	226.9	224.0	211.6	206.0	182.8	175.0	164.3	143.9	123.9	106.2	61.1	40.1	36.3	32.0	29.9	29.9
322	229.1	238.2	232.5	231.6	218.1	204.1	183.3	181.6	170.9	143.8	126.4	103.3	63.6	42.8	37.3	31.4	29.8	30.0
326	219.8	230.6	230.2	228.4	218.7	202.3	184.6	184.7	166.5	149.1	129.0	108.5	68.2	44.1	38.7	34.3	33.2	30.8
332	217.5	227.6	226.7	224.6	214.1	202.8	186.5	182.2	173.3	150.3	133.9	109.2	62.3	44.5	40.2	35.7	32.6	30.5
336	225.2	238.5	235.7	235.5	224.7	211.2	195.6	185.5	179.9	151.6	135.3	114.7	72.0	46.7	41.1	35.1	30.8	29.8
342	226.2	239.3	239.0	237.9	224.9	209.2	195.1	187.5	178.7	149.3	138.0	116.1	69.5	48.6	40.8	35.4	32.8	30.0
346	228.5	241.4	240.7	239.1	229.3	217.1	198.1	189.7	182.6	156.9	139.7	118.0	74.5	49.1	41.9	35.2	30.9	30.3
352	230.2	239.1	237.0	236.8	229.6	221.0	211.3	205.5	191.5	160.3	142.9	123.2	75.3	51.7	44.6	35.3	31.8	31.1
356	234.8	246.0	244.1	246.3	240.0	236.2	210.5	198.3	178.6	161.1	146.0	125.0	74.2	50.8	44.0	35.1	33.0	32.4
362	244.3	256.2	255.9	257.5	247.4	241.0	219.0	198.6	189.0	167.0	151.2	126.8	80.4	53.4	44.5	38.7	34.5	31.3
366	237.3	249.6	249.4	251.3	244.2	228.8	213.4	201.6	191.8	166.9	155.5	131.9	73.9	55.3	46.7	38.7	33.3	31.2
372	237.6	246.9	248.2	249.3	240.5	234.4	212.2	192.6	179.4	165.2	153.2	131.3	80.2	55.4	47.5	39.8	35.4	32.6
376	239.1	248.1	246.8	246.6	241.5	228.3	213.0	203.1	187.9	170.8	153.4	130.7	82.6	55.4	46.3	39.0	34.9	32.4
382	242.2	248.1	247.0	239.6	227.6	211.8	205.6	197.7	182.7	165.2	151.1	130.0	84.3	59.9	48.0	39.7	33.9	33.2
386	236.1	244.4	241.8	235.8	222.4	209.2	203.3	196.7	177.3	166.0	151.7	127.9	84.5	59.0	49.8	40.5	37.3	34.0
392	233.8	242.3	238.7	236.1	229.7	216.7	201.1	194.1	182.0	166.1	151.1	124.8	85.4	58.3	53.6	46.4	40.4	35.9
396	237.3	248.9	247.7	242.9	227.9	215.8	203.6	199.2	187.9	165.7	151.1	131.5	83.5	62.2	53.0	40.5	35.3	33.6
402	241.7	252.9	249.5	247.2	233.5	226.8	210.4	199.1	189.2	167.6	154.6	136.2	89.6	60.5	54.5	45.3	39.6	36.1
406	245.7	255.8	252.7	246.0	236.6	228.3	215.3	200.1	186.0	171.8	156.4	130.8	85.9	61.2	54.2	47.5	44.1	36.6
412	240.6	249.5	250.2	251.1	243.1	227.3	216.1	200.6	184.0	172.8	155.2	126.8	83.4	60.5	54.7	44.9	38.8	34.1
416	235.6	249.0	249.5	250.4	239.5	220.0	206.8	196.1	181.0	169.0	152.7	119.4	78.1	60.0	50.2	39.5	36.1	36.8
422	236.3	243.7	244.8	243.6	236.5	226.6	213.6	200.8	184.6	171.1	150.7	120.6	71.3	59.9	53.3	45.3	41.2	39.3
426	232.4	243.8	244.6	245.1	231.9	215.6	207.0	193.5	179.1	167.6	150.0	123.2	75.4	62.5	56.6	50.0	45.5	41.3
432	231.9	239.5	238.2	234.4	225.5	215.6	204.3	194.1	179.5	168.6	147.2	117.3	80.6	67.3	57.1	48.9	44.2	40.4
436	237.4	247.8	246.0	246.6	237.1	218.5	204.2	196.2	184.5	168.2	148.2	113.5	79.6	64.8	56.6	48.6	44.9	40.8
442	242.2	249.4	246.2	243.4	234.5	220.7	208.2	198.9	188.0	169.3	147.6	115.4	76.1	62.2	58.1	50.5	46.5	40.3
446	238.8	249.0	248.9	246.7	238.0	219.7	205.1	199.2	183.4	170.2	149.4	117.4	75.8	65.1	59.5	51.5	48.5	43.5
452	241.1	252.5	251.0	250.4	242.3	224.5	210.0	203.4	188.7	171.1	152.3	125.3	78.6	61.8	57.8	48.9	44.6	39.4
456	244.2	254.2	251.7	249.3	240.1	226.9	208.6	200.0	190.1	173.7	150.6	115.9	77.3	65.2	59.8	50.8	46.3	38.9
462	245.1	250.9	251.1	247.4	236.7	221.3	208.4	199.9	187.9	171.8	152.7	116.9	80.2	69.0	60.6	52.8	46.8	40.2
466	247.7	256.4	252.9	247.0	236.4	222.8	211.5	198.9	186.0	175.6	153.5	113.4	77.1	66.7	59.2	49.8	43.7	39.7

Temperature measurements (°C), twin beds experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
-124	25.2	25.1	25.0	24.9	24.9	24.8	24.9	24.9	24.8	24.8	24.6	24.5	24.5	24.4	24.4	24.3	24.2	24.0
-118	25.2	25.1	25.0	25.0	24.9	24.8	24.9	24.9	24.9	24.9	24.6	24.5	24.5	24.4	24.4	24.3	24.1	23.9
-114	25.2	25.0	25.0	24.9	24.9	24.8	24.9	24.8	24.9	24.8	24.6	24.5	24.5	24.4	24.4	24.3	24.2	23.9
-108	25.1	25.2	25.1	25.0	24.9	24.8	24.9	24.8	24.8	24.8	24.7	24.6	24.5	24.4	24.4	24.2	24.2	23.9
-104	25.2	25.2	25.1	25.0	24.9	24.8	24.8	24.8	24.8	24.7	24.7	24.6	24.5	24.4	24.3	24.2	24.1	23.9
-98	25.3	25.3	25.2	25.0	24.9	24.9	24.8	24.8	24.7	24.8	24.7	24.6	24.5	24.5	24.3	24.2	24.1	23.9
-94	25.2	25.2	25.1	25.0	24.9	24.9	24.9	24.8	24.7	24.7	24.7	24.6	24.5	24.5	24.4	24.2	24.1	23.9
-88	25.3	25.2	25.1	25.0	24.9	24.8	24.9	24.8	24.7	24.7	24.7	24.5	24.5	24.5	24.3	24.2	24.1	23.9
-84	25.3	25.3	25.1	25.1	24.9	24.8	24.8	24.8	24.7	24.7	24.6	24.5	24.6	24.5	24.4	24.2	24.1	23.9
-78	25.3	25.2	25.2	25.1	24.9	24.8	24.8	24.8	24.7	24.7	24.7	24.6	24.6	24.5	24.5	24.3	24.2	23.8
-74	25.2	25.1	25.1	25.0	25.0	24.9	24.8	24.8	24.8	24.7	24.6	24.5	24.5	24.5	24.5	24.4	24.2	24.0
-68	25.1	25.0	25.0	24.9	24.9	24.8	24.9	24.8	24.8	24.8	24.6	24.5	24.6	24.6	24.5	24.3	24.1	23.9
-64	25.1	25.1	25.1	25.0	24.9	24.8	24.8	24.8	24.8	24.7	24.7	24.6	24.5	24.5	24.4	24.2	24.1	23.9
-58	25.2	25.2	25.2	25.1	25.0	24.8	24.8	24.8	24.7	24.8	24.7	24.6	24.5	24.4	24.3	24.3	24.1	23.8
-54	25.2	25.2	25.2	25.1	25.0	24.8	24.7	24.7	24.7	24.7	24.7	24.7	24.6	24.4	24.4	24.3	24.1	23.9
-48	25.4	25.3	25.2	25.1	24.9	24.8	24.6	24.8	24.6	24.7	24.7	24.7	24.6	24.5	24.4	24.3	24.1	23.9
-44	25.4	25.4	25.3	25.1	25.0	24.8	24.7	24.7	24.6	24.7	24.8	24.8	24.5	24.4	24.4	24.2	24.1	23.9
-38	25.4	25.4	25.4	25.2	25.1	24.8	24.7	24.6	24.6	24.6	24.7	24.6	24.5	24.4	24.4	24.3	24.2	23.8
-34	25.5	25.4	25.4	25.3	25.2	24.8	24.7	24.7	24.6	24.6	24.6	24.6	24.5	24.3	24.4	24.3	24.1	23.8
-28	25.5	25.5	25.5	25.4	25.2	24.9	24.8	24.8	24.6	24.7	24.6	24.5	24.5	24.4	24.4	24.3	24.1	23.8
-24	25.4	25.4	25.4	25.4	25.3	25.0	24.9	24.8	24.7	24.7	24.6	24.6	24.5	24.3	24.3	24.2	24.1	23.8
-18	25.4	25.4	25.4	25.3	25.2	25.0	24.9	24.8	24.6	24.6	24.6	24.6	24.5	24.4	24.3	24.4	24.3	24.1
-14	25.3	25.4	25.4	25.3	25.2	25.0	24.9	24.7	24.6	24.6	24.6	24.6	24.5	24.4	24.3	24.3	24.3	24.1
-8	25.3	25.4	25.4	25.3	25.2	25.0	24.9	24.7	24.6	24.6	24.6	24.5	24.4	24.3	24.3	24.2	24.2	24.0
-4	25.4	25.4	25.4	25.4	25.3	25.1	25.0	24.8	24.5	24.5	24.6	24.6	24.4	24.3	24.2	24.2	24.2	24.0
2	25.4	25.5	25.5	25.5	25.3	25.3	25.0	24.9	24.6	24.5	24.6	24.5	24.4	24.4	24.3	24.3	24.1	23.9
6	25.4	25.5	25.4	25.4	25.3	25.2	25.1	24.9	24.7	24.6	24.5	24.5	24.4	24.3	24.4	24.2	24.2	23.9
12	25.4	25.4	25.4	25.4	25.3	25.2	25.0	25.0	24.7	24.6	24.6	24.5	24.4	24.4	24.3	24.3	24.2	23.9
16	25.4	25.4	25.4	25.3	25.2	25.1	25.0	25.0	24.6	24.5	24.6	24.5	24.4	24.4	24.4	24.2	24.1	23.9
22	25.4	25.4	25.5	25.4	25.2	25.1	25.0	24.9	24.7	24.6	24.6	24.5	24.4	24.4	24.4	24.2	24.1	23.9
26	25.4	25.5	25.5	25.4	25.3	25.1	25.0	25.0	24.8	24.8	24.7	24.5	24.4	24.4	24.4	24.2	24.1	23.9
32	25.4	25.5	25.5	25.5	25.3	25.2	25.1	25.0	24.7	24.9	24.7	24.6	24.4	24.4	24.4	24.3	24.1	23.9
36	25.3	25.5	25.5	25.4	25.3	25.2	25.1	25.1	24.8	24.9	24.7	24.5	24.4	24.4	24.4	24.2	24.1	23.9
42	25.4	25.6	25.5	25.5	25.3	25.3	25.1	25.1	24.8	24.8	24.7	24.5	24.4	24.4	24.4	24.3	24.1	23.8
46	25.4	25.5	25.5	25.5	25.4	25.3	25.1	25.0	24.7	24.8	24.7	24.5	24.4	24.4	24.4	24.2	24.1	23.8
52	25.4	25.6	25.6	25.5	25.4	25.3	25.1	25.0	24.8	24.7	24.7	24.5	24.4	24.4	24.4	24.2	24.1	23.8
56	25.4	25.6	25.6	25.6	25.5	25.2	25.1	25.0	24.9	24.7	24.6	24.4	24.3	24.4	24.3	24.2	24.1	23.8
62	25.5	25.6	25.6	25.6	25.4	25.2	25.1	25.0	24.9	24.8	24.5	24.4	24.4	24.3	24.3	24.2	24.1	23.8
66	25.5	25.6	25.6	25.5	25.4	25.3	25.1	25.1	24.9	24.8	24.5	24.4	24.4	24.3	24.3	24.2	24.1	23.9
72	25.6	25.7	25.7	25.6	25.4	25.3	25.1	25.0	24.9	24.8	24.6	24.4	24.4	24.3	24.3	24.2	24.1	23.9
76	25.8	25.8	25.7	25.6	25.5	25.3	25.2	25.0	24.9	24.8	24.6	24.4	24.4	24.3	24.4	24.2	24.1	23.9
82	25.9	26.0	26.0	25.8	25.6	25.3	25.2	25.0	24.9	24.8	24.6	24.5	24.3	24.3	24.3	24.2	24.1	23.9
86	26.1	26.0	26.0	25.7	25.5	25.3	25.2	25.0	24.9	24.8	24.6	24.4	24.4	24.3	24.3	24.2	24.1	23.9
92	26.1	26.1	26.0	25.7	25.4	25.3	25.2	25.1	24.9	24.8	24.6	24.5	24.3	24.3	24.3	24.2	24.1	23.8
96	26.3	26.3	26.1	25.7	25.4	25.3	25.2	25.1	24.9	24.8	24.6	24.4	24.3	24.3	24.3	24.2	24.1	23.8
102	26.5	26.4	26.2	25.8	25.5	25.4	25.2	25.2	25.0	24.8	24.6	24.4	24.3	24.3	24.3	24.2	24.1	23.9
106	26.6	26.7	26.3	25.9	25.6	25.5	25.3	25.2	25.0	24.9	24.6	24.5	24.3	24.3	24.3	24.2	24.1	23.9
112	26.7	26.7	26.2	26.0	25.7	25.6	25.4	25.3	25.1	24.8	24.6	24.5	24.4	24.3	24.3	24.2	24.1	23.8
116	27.3	27.0	26.7	26.1	25.7	25.6	25.5	25.3	25.1	24.8	24.6	24.5	24.4	24.3	24.3	24.2	24.1	23.8
122	27.6	27.5	27.0	26.1	25.8	25.6	25.4	25.3	25.1	24.8	24.6	24.5	24.4	24.4	24.3	24.2	24.0	23.8
126	28.7	27.5	26.9	26.2	25.7	25.7	25.5	25.3	25.0	24.8	24.7	24.5	24.4	24.4	24.3	24.2	24.1	23.9
132	29.6	29.0	27.6	26.7	25.9	25.8	25.5	25.4	25.2	24.8	24.7	24.6	24.4	24.4	24.4	24.2	24.1	23.9
136	30.4	30.3	28.5	27.1	26.3	25.9	25.6	25.5	25.3	25.1	24.7	24.5	24.5	24.3	24.3	24.2	24.1	23.9
142	31.5	30.4	29.1	28.1	27.7	26.9	26.1	25.9	25.4	25.3	24.8	24.6	24.5	24.4	24.3	24.2	24.1	23.9
146	33.2	32.7	31.7	31.0	30.4	27.5	26.5	26.1	25.6	25.4	24.9	24.6	24.5	24.4	24.3	24.3	24.1	23.9
152	36.8	37.2	36.7	34.8	32.6	28.5	27.1	26.2	25.7	25.5	24.9	24.6	24.5	24.4	24.4	24.3	24.1	23.9
156	39.0	39.3	38.1	35.5	33.2	29.9	28.4	26.9	25.7	25.7	24.9	24.7	24.5	24.5	24.4	24.3	24.1	23.9
162	44.7	45.7	43.5	39.8	35.8	31.8	30.3	28.3	25.9	25.7	25.0	24.8	24.6	24.5	24.4	24.3	24.1	23.9
166	49.3	51.4	49.6	45.5	41.4	34.8	32.3	29.0	26.1	25.8	25.1	24.9	24.7	24.6	24.4	24.3	24.2	23.9
172	53.4	56.3	53.4	48.8	44.8	38.9	36.3	30.5	26.6	25.9	25.2	25.0	24.8	24.6	24.5	24.3	24.2	23.9
176	61.1	66.1	62.3	55.7	50.9	43.0	38.5	31.3	27.0	25.9	25.3	25.2	24.9	24.7	24.5	24.4	24.2	23.9
182	71.0	74.4	72.9	67.0	57.6	47.6	43.2	34.6	28.0	26.1	25.5	25.3	25.0	24.7	24.6	24.4	24.3	24.0
186	87.0	92.1	88.4	77.2	63.3	55.4	47.4	37.7	28.2	26.2	25.7	25.5	25.1	24.9	24.7	24.5	24.3	24.1

Temperature measurements (°C), twin beds experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
192	97.0	101.1	98.0	90.3	75.6	64.4	53.6	42.7	29.6	26.3	25.9	25.7	25.3	25.0	24.8	24.6	24.4	24.2
196	104.3	114.2	112.3	98.8	83.8	71.9	58.6	43.6	29.7	26.5	26.2	25.9	25.4	25.2	25.0	24.7	24.5	24.3
202	109.1	118.9	115.5	104.5	92.2	80.3	71.3	57.4	30.6	26.8	26.5	26.3	25.8	25.4	25.1	24.9	24.5	24.4
206	123.5	129.2	127.3	113.9	101.4	91.6	79.3	69.2	32.2	27.3	26.9	26.7	26.1	25.7	25.4	24.9	24.6	24.5
212	133.0	140.3	135.6	122.0	110.6	98.0	85.7	75.3	38.4	28.3	27.6	27.2	26.5	26.0	25.5	25.1	24.7	24.7
216	138.1	149.1	146.6	137.2	128.1	105.3	97.2	86.7	46.7	29.5	28.4	27.6	26.6	26.3	25.7	25.3	24.9	24.8
222	141.6	157.0	150.1	141.7	125.3	116.8	112.3	102.6	63.7	32.9	29.2	28.3	27.1	26.6	25.9	25.4	25.0	24.9
226	155.2	160.9	151.4	146.4	134.2	125.8	123.1	110.4	71.1	33.8	29.5	28.6	27.5	27.0	26.1	25.6	25.2	25.1
232	155.6	160.4	158.5	156.0	150.9	141.8	145.0	124.6	83.6	37.2	31.2	29.2	27.7	27.5	26.4	26.0	25.4	25.4
236	169.8	176.8	169.6	162.5	156.4	149.3	154.1	154.0	104.7	53.2	33.2	30.4	28.6	28.2	26.9	26.2	25.5	25.7
242	171.5	183.7	177.2	170.5	160.4	153.4	155.5	151.9	107.9	59.1	34.9	31.9	29.6	29.2	27.8	26.8	26.0	26.2
246	192.2	205.0	197.9	185.5	176.5	158.7	153.0	156.2	134.0	77.6	38.7	35.7	31.0	30.4	28.7	27.5	26.7	26.5
252	215.0	219.0	213.1	199.5	186.0	170.6	160.2	164.0	145.4	119.8	55.2	42.4	31.5	31.7	29.7	27.8	26.9	27.1
256	232.7	245.4	238.9	224.5	207.6	190.4	173.4	170.5	166.0	165.1	77.3	49.1	35.4	33.6	30.5	28.3	27.2	27.5
262	244.3	253.3	241.5	225.1	211.5	205.2	196.3	201.3	174.0	171.2	83.6	58.9	43.3	36.0	31.3	29.2	27.7	28.1
266	260.9	270.7	266.1	251.3	229.5	214.6	205.6	201.5	194.7	191.3	112.0	70.7	46.7	38.2	33.3	29.8	28.2	29.0
272	288.4	304.1	296.6	270.0	247.4	223.4	211.2	205.8	198.6	199.2	132.8	84.5	55.4	41.5	34.0	30.6	28.7	29.6
276	285.9	302.2	298.7	287.1	256.9	233.4	221.5	216.6	212.3	225.7	161.9	98.5	66.7	47.0	36.2	31.9	29.5	30.4
282	300.1	312.9	308.0	289.6	267.5	254.9	247.4	230.0	233.3	247.0	180.9	101.5	71.5	52.9	40.5	33.3	30.5	31.4
286	306.1	318.5	314.9	294.5	266.1	255.0	243.2	237.2	236.4	225.9	171.0	112.6	73.4	54.9	41.0	34.8	31.7	31.8
292	313.2	329.0	324.4	298.7	279.7	273.2	270.4	270.7	254.3	239.7	187.3	123.1	75.6	56.3	43.1	36.7	33.5	33.4
296	307.0	325.0	324.9	308.1	283.4	276.4	266.8	257.9	247.9	260.0	167.2	110.2	77.2	52.6	44.3	40.3	35.3	34.8
302	316.5	331.8	336.2	326.3	308.8	281.0	261.8	262.8	245.8	243.9	191.7	113.4	81.7	59.8	45.9	40.8	36.5	36.4
306	328.7	347.2	347.1	327.2	306.5	283.5	278.9	264.0	252.4	269.9	175.9	116.5	85.2	62.1	46.6	42.2	39.3	38.5
312	320.5	336.4	337.1	319.5	301.8	291.3	282.7	282.3	279.5	287.2	214.6	124.6	89.1	62.8	48.5	44.8	40.3	38.8
316	332.3	353.1	354.2	334.3	316.5	306.4	286.9	283.6	261.1	243.0	178.4	114.0	88.4	62.8	52.3	46.4	41.6	39.7
322	334.9	352.5	353.5	335.4	313.8	299.9	290.7	293.4	282.1	275.0	181.3	119.4	88.2	65.6	51.4	47.8	42.6	39.9
326	322.8	341.4	341.8	330.5	323.5	310.9	295.1	278.8	268.6	264.3	178.4	120.2	89.3	65.3	52.4	48.6	43.8	40.1
332	349.3	368.7	365.5	350.2	336.9	318.4	301.5	287.1	258.4	234.8	192.8	127.8	90.3	66.5	55.6	49.9	46.4	42.2
336	354.0	375.2	377.5	369.4	354.4	326.7	296.3	288.4	263.7	233.2	186.4	133.3	94.5	68.9	55.9	51.6	48.9	43.7
342	360.2	382.9	382.2	363.2	340.1	326.3	300.7	289.0	277.2	251.5	189.0	136.1	94.3	68.1	54.8	51.6	49.0	43.8
346	351.1	369.4	368.8	356.1	341.4	329.1	311.6	291.1	268.1	244.9	193.1	140.8	97.9	65.7	55.7	53.5	49.4	44.5
352	352.4	374.2	376.1	366.0	352.0	330.7	306.1	291.5	271.9	245.8	197.8	143.3	100.4	67.9	57.7	54.8	50.5	45.5
356	351.0	368.1	366.1	356.5	342.2	324.6	315.4	302.0	278.9	258.9	210.0	153.8	106.4	73.0	61.8	56.8	51.3	46.6
362	356.2	368.6	371.0	357.6	344.8	334.9	329.2	319.6	306.5	295.9	225.9	157.9	109.9	74.2	62.3	57.9	53.7	47.7
366	350.2	366.4	363.9	349.2	341.6	335.2	315.5	299.2	286.7	257.8	202.7	145.5	107.2	75.5	65.3	58.4	55.0	48.2
372	354.5	366.8	358.8	346.8	340.4	323.5	316.4	306.0	287.7	258.7	214.4	160.9	108.2	75.1	65.4	58.4	57.0	48.8
376	358.3	376.6	378.8	372.7	359.7	339.1	321.1	304.0	278.1	253.3	206.7	149.4	105.9	75.0	64.4	59.1	56.3	48.8
382	359.3	367.8	360.7	351.9	336.9	320.6	307.5	295.6	276.9	245.9	201.6	143.0	102.6	73.2	62.1	56.4	54.0	47.5
386	362.7	373.6	369.3	364.7	356.0	335.4	319.5	303.3	275.9	249.1	199.9	143.5	101.3	72.3	60.1	54.0	51.1	47.4
392	362.8	375.0	372.8	365.3	350.5	330.9	317.2	300.3	276.5	255.6	197.3	141.7	102.6	72.7	61.7	57.6	56.9	51.1
396	365.6	373.5	367.7	354.2	346.4	336.0	319.9	309.4	280.1	258.2	208.1	144.0	102.9	73.0	62.3	57.6	57.8	51.9
402	373.5	385.9	382.4	372.0	357.3	343.6	322.2	307.1	285.7	262.1	209.7	148.1	98.6	73.3	62.3	60.2	60.3	54.0
406	365.4	378.0	370.1	359.1	351.9	334.9	315.7	299.5	282.3	268.4	202.1	138.7	100.0	73.8	64.5	60.4	60.9	55.3
412	357.4	371.5	371.7	359.9	347.2	334.9	322.9	310.6	280.5	257.0	200.4	139.3	99.9	72.9	64.6	60.2	58.1	52.8
416	360.3	369.2	364.4	356.2	348.8	338.9	323.1	299.8	281.1	253.5	186.4	134.1	96.4	66.8	58.8	55.9	54.7	50.1
422	349.4	363.2	364.9	359.9	350.8	334.0	320.5	309.1	288.7	254.6	163.8	123.3	89.7	68.5	59.4	55.7	52.8	49.5
426	357.5	375.0	374.3	363.4	350.5	339.3	313.6	302.2	274.9	236.7	150.8	115.3	88.3	66.2	58.5	55.9	52.4	49.2
432	363.5	378.0	375.7	365.6	352.8	327.1	312.2	298.7	280.5	235.2	147.6	113.1	85.1	66.0	58.3	57.4	55.6	51.6
436	349.6	365.1	358.3	352.8	343.9	338.3	327.3	320.8	295.3	234.4	157.3	118.3	86.2	68.4	60.7	60.4	57.7	55.3
442	357.6	375.4	380.0	379.3	369.6	358.8	337.7	323.0	297.0	260.8	166.3	120.6	89.6	69.8	64.2	62.4	61.1	55.9
446	361.0	377.6	377.9	369.4	356.4	345.6	332.5	310.7	283.6	252.2	162.9	116.6	90.6	71.3	63.0	63.0	62.8	56.8
452	360.2	377.2	378.9	375.7	370.7	358.4	350.3	336.9	313.6	272.9	160.0	118.7	90.2	68.6	58.8	58.2	58.5	53.8
456	357.4	375.6	376.9	364.5	353.0	340.0	326.7	315.3	297.8	252.9	158.1	112.4	89.4	68.9	61.8	58.8	56.9	53.3
462	355.8	372.3	369.5	359.1	346.1	336.0	324.9	312.4	287.3	261.6	170.6	118.3	89.5	69.3	61.7	59.1	55.7	53.0
466	363.3	381.5	383.2	371.8	356.4	349.4	333.4	315.8	290.7	259.6	182.4	129.2	92.3	71.8	63.6	60.5	58.2	54.7

APPENDIX C. TEMPERATURE MEASUREMENTS (SECTION 4)

Temperature measurements (°C), overcrowded experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
-122	22.7	22.7	22.7	22.7	22.7	22.8	22.7	22.6	22.7	22.8	22.9	22.9	22.9	22.9	23.0	23.0	23.1	22.9
-117	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.8	22.8	22.8	22.9	22.9	22.9	23.0	23.1	23.1	23.1	23.1
-112	22.6	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.9	22.9	23.0	23.0	23.0	23.1	23.1	23.1	22.9
-107	22.7	22.8	22.7	22.8	22.8	22.8	22.8	22.9	22.9	22.9	22.9	22.9	22.9	22.9	23.0	23.1	22.7	22.7
-102	22.7	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.9	22.9	22.9	22.9	22.9	22.9	23.1	23.0	22.7	22.7
-97	22.7	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.9	22.9	22.9	22.9	23.1	23.1	23.0	22.7
-92	22.7	22.8	22.8	22.8	22.8	22.8	22.8	22.9	22.9	23.0	23.0	23.0	23.0	23.0	23.1	23.2	23.1	22.9
-87	22.7	22.8	22.8	22.8	22.8	22.8	22.8	22.9	22.9	22.9	23.0	23.0	22.9	23.0	23.1	23.1	23.1	23.0
-82	22.7	22.7	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.9	22.9	22.9	22.9	22.9	23.1	23.0	23.0	23.0
-77	22.7	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.9	22.9	22.9	22.9	23.0	23.0	23.0	23.0
-72	22.7	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.9	22.8	22.8	22.9	23.0	23.0	23.0
-67	22.7	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.9	22.9	22.9	22.9
-62	22.7	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.9	22.9	22.8	22.8
-57	22.7	22.9	22.8	22.9	22.9	23.1	23.2	23.1	23.0	23.1	23.0	22.9	22.9	22.9	22.9	22.9	22.7	22.8
-52	22.9	23.0	23.0	23.1	23.2	23.2	23.1	23.0	22.9	23.0	22.9	22.9	22.9	22.9	22.9	22.8	22.6	22.6
-47	22.9	23.0	23.0	23.1	23.1	23.1	23.0	23.0	23.0	23.0	23.0	23.0	22.9	22.8	22.8	22.7	22.5	22.4
-42	22.9	23.1	23.0	23.1	23.1	23.1	23.0	23.0	23.0	22.9	22.9	22.9	22.8	22.7	22.8	22.8	22.6	22.5
-37	23.0	23.1	23.0	23.0	23.0	22.9	23.0	23.0	23.0	24.3	24.3	23.0	23.5	23.3	23.1	22.8	22.6	22.5
-32	22.9	23.0	23.0	23.0	22.9	22.9	23.0	23.2	23.1	23.3	23.2	23.0	23.0	23.0	23.0	22.9	22.8	22.7
-27	22.8	22.9	22.9	23.0	22.9	23.0	23.0	23.1	23.0	23.1	23.1	23.0	22.8	22.8	22.8	22.8	22.8	22.6
-22	22.9	22.9	22.9	22.9	23.0	23.0	23.0	23.0	22.9	23.0	23.0	22.9	22.9	22.8	22.8	22.7	22.7	22.7
-17	22.9	22.9	22.9	22.9	23.0	23.0	22.9	23.0	22.9	22.9	22.9	22.8	22.7	22.7	22.8	22.7	22.7	22.7
-12	22.8	23.0	23.0	23.0	23.0	23.0	22.9	22.9	22.9	22.9	22.9	22.8	22.6	22.6	22.7	22.8	22.6	22.7
-7	22.9	23.0	23.0	23.0	23.0	23.0	22.8	22.9	22.9	22.9	22.9	22.8	22.5	22.6	22.8	22.7	22.5	22.3
-2	22.9	23.0	23.0	23.0	22.9	22.9	22.9	22.9	22.8	22.9	22.9	22.8	22.6	22.5	22.7	22.7	22.5	22.3
3	22.9	22.9	22.9	23.0	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.8	22.7	22.6	22.7	22.7	22.6	22.3
8	22.9	23.0	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.8	22.8	22.7	22.7	22.8	22.7	22.6	22.4
13	22.9	23.1	23.0	23.0	23.0	23.0	23.0	23.0	22.9	22.9	22.8	22.8	22.6	22.7	22.7	22.6	22.6	22.6
18	22.9	23.0	22.9	23.0	23.0	23.0	22.9	22.9	22.9	22.9	22.8	22.8	22.7	22.7	22.7	22.7	22.7	22.7
23	22.8	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.8	22.9	22.8	22.8	22.7	22.7	22.7	22.7	22.7	22.6
28	22.8	22.9	22.9	22.9	23.0	22.9	22.9	22.8	22.8	22.8	22.7	22.7	22.6	22.6	22.6	22.6	22.6	22.6
33	22.8	22.9	22.8	22.9	22.9	22.8	22.8	22.8	22.7	22.7	22.6	22.7	22.6	22.6	22.7	22.6	22.5	22.5
38	22.8	22.8	22.8	22.8	22.8	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.6	22.6	22.6	22.6	22.5	22.5
43	22.7	22.9	22.8	22.8	22.8	22.7	22.7	22.7	22.7	22.7	22.7	22.6	22.5	22.5	22.6	22.5	22.4	22.4
48	23.5	23.6	23.4	23.5	23.0	22.9	22.8	22.7	22.7	22.7	22.7	22.6	22.6	22.5	22.6	22.5	22.5	22.4
53	24.6	24.6	23.6	23.3	23.1	23.0	22.9	22.8	22.8	22.8	22.7	22.7	22.6	22.6	22.7	22.6	22.5	22.5
58	25.5	25.1	23.8	23.4	23.2	23.0	22.9	22.9	23.0	22.9	22.9	22.8	22.7	22.7	22.7	22.7	22.6	22.6
63	26.7	26.1	23.9	23.5	23.2	22.9	23.0	22.9	22.9	22.8	22.8	22.8	22.8	22.6	22.7	22.7	22.6	22.4
68	28.7	27.0	24.3	23.6	23.1	23.0	22.9	22.9	22.8	22.8	22.7	22.7	22.6	22.5	22.6	22.4	22.3	22.2
73	29.3	28.4	24.6	23.5	23.2	23.0	23.0	22.9	23.0	23.0	22.9	22.9	22.8	22.5	22.5	22.4	22.3	22.2
78	31.0	30.3	26.6	24.7	23.9	23.4	23.3	23.3	23.2	23.1	23.2	23.1	22.9	22.6	22.7	22.6	22.5	22.3
83	36.0	32.7	27.6	26.6	26.2	24.6	24.1	24.3	24.0	23.6	23.5	23.3	22.7	22.6	22.6	22.6	22.6	22.3
88	39.0	38.9	33.5	32.1	28.2	26.0	24.8	24.5	24.2	23.9	23.7	23.5	23.3	22.9	22.8	22.6	22.4	22.2
93	49.8	47.0	39.9	38.9	31.9	29.5	26.7	24.7	24.2	23.9	23.6	23.5	23.2	22.9	22.7	22.4	22.3	22.2
98	66.4	64.3	47.3	42.6	36.1	35.3	31.5	29.7	25.3	24.4	23.9	23.9	23.4	23.3	22.8	22.5	22.3	22.3
103	164.1	149.9	104.1	74.5	55.7	54.2	49.5	43.3	39.8	33.1	29.6	26.7	25.1	24.8	23.8	23.0	22.7	22.3
108	325.3	316.7	215.8	181.7	145.4	129.1	100.1	81.9	73.3	46.6	36.3	34.5	30.2	30.6	28.9	26.3	24.5	23.8
113	630.6	691.2	571.7	564.3	427.6	281.6	244.4	217.8	201.5	172.6	82.2	78.6	55.3	59.4	60.3	40.0	35.3	32.4
118	612.9	687.3	713.0	741.0	772.0	729.0	555.0	492.4	436.8	421.0	384.2	179.7	119.0	124.8	124.5	94.5	76.5	57.5

Temperature measurements (°C), overcrowded experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
-122	22.2	22.1	22.2	22.2	22.1	21.9	22.1	22.3	22.4	22.3	22.6	22.7	22.8	23.1	23.1	23.2	23.3	23.2
-117	22.5	22.5	22.5	22.6	22.5	22.2	22.2	22.2	22.4	22.6	22.8	22.9	23.0	23.1	23.1	23.0	22.8	22.7
-112	22.6	22.6	22.4	22.4	22.2	22.0	22.2	22.5	22.8	22.8	22.9	22.9	23.0	23.1	23.0	22.9	22.8	22.7
-107	23.4	22.9	22.6	22.7	22.6	22.5	22.6	22.6	22.7	22.7	22.8	22.9	22.8	22.9	22.8	22.8	22.9	22.8
-102	22.7	22.7	22.5	22.4	22.2	22.2	22.2	22.2	22.2	22.3	22.4	22.5	22.7	23.0	22.9	22.8	22.9	22.8
-97	22.7	22.6	22.3	22.3	22.2	22.1	22.1	22.1	22.1	22.1	22.2	22.2	22.2	22.4	22.4	22.5	22.8	22.9
-92	22.3	22.2	22.1	22.1	22.0	22.0	22.1	22.2	22.2	22.2	22.2	22.2	22.2	22.3	22.3	22.4	22.4	22.5
-87	22.5	22.6	22.5	22.3	22.4	22.7	22.4	22.1	22.1	22.0	22.0	21.9	21.8	22.3	22.3	22.4	22.4	22.4
-82	22.5	22.4	22.2	22.3	22.4	22.2	22.2	22.3	22.2	22.1	22.1	22.1	22.0	22.2	22.1	22.2	22.5	22.5
-77	23.1	22.9	22.8	22.8	22.6	22.5	22.2	22.0	22.2	22.3	22.5	22.4	22.4	22.4	22.5	22.5	22.6	22.5
-72	22.5	22.5	22.5	22.7	22.5	22.2	22.2	22.3	22.2	22.0	22.0	22.0	22.0	22.2	22.1	22.2	22.3	22.2
-67	24.4	23.7	23.3	23.2	23.1	22.6	22.6	22.7	22.5	22.4	22.4	22.5	22.4	22.4	22.3	22.3	22.3	22.2
-62	23.9	23.7	23.3	23.1	23.0	22.7	22.6	22.7	22.5	22.4	22.4	22.4	22.4	22.5	22.5	22.4	22.4	22.2
-57	23.8	23.6	23.4	23.2	22.9	23.0	22.9	22.9	22.8	22.6	22.5	22.4	22.4	22.5	22.5	22.5	22.5	22.3
-52	23.9	23.8	23.6	23.6	23.4	23.1	23.1	23.2	23.0	23.0	22.7	22.5	22.4	22.6	22.5	22.5	22.5	22.5
-47	23.8	23.9	23.6	23.5	23.3	23.1	23.2	23.2	23.1	22.8	22.7	22.5	22.4	22.6	22.5	22.6	22.6	22.6
-42	24.9	24.3	24.0	23.8	23.5	23.3	23.2	23.3	23.2	23.0	22.9	22.8	22.6	22.6	22.6	22.5	22.6	22.6
-37	25.2	24.3	23.9	23.8	23.6	23.3	23.2	23.2	23.2	23.0	22.9	22.9	22.6	22.7	22.6	22.6	22.7	22.7
-32	26.0	24.9	24.4	24.1	23.6	23.4	23.2	23.2	23.1	23.1	23.0	23.0	22.8	22.8	22.7	22.7	22.7	22.8
-27	26.1	25.0	24.2	23.9	23.6	23.4	23.4	23.3	23.1	23.1	23.0	23.0	22.8	22.9	22.8	22.8	22.9	22.9
-22	26.4	24.9	23.9	23.8	23.6	23.4	23.4	23.3	23.1	23.1	23.1	23.1	22.9	23.0	22.9	22.9	22.9	22.9
-17	26.7	25.1	24.2	24.0	23.7	23.5	23.5	23.4	23.3	23.2	23.1	23.0	23.0	23.1	23.0	22.9	23.0	22.9
-12	24.7	24.3	23.8	23.7	23.5	23.6	23.6	23.5	23.5	23.3	23.3	23.1	23.1	23.3	23.1	23.0	22.9	22.9
-7	25.6	24.7	24.0	23.9	23.6	23.6	23.6	23.5	23.5	23.3	23.2	23.1	23.1	23.3	23.2	23.1	23.0	23.0
-2	25.8	24.9	24.3	24.1	23.9	23.6	23.6	23.6	23.5	23.4	23.3	23.2	23.1	23.3	23.2	23.2	23.1	23.0
3	25.8	24.9	24.4	24.2	24.1	23.8	23.8	23.8	23.5	23.3	23.4	23.3	23.2	23.2	23.1	23.1	23.2	23.0
8	26.0	24.9	24.4	24.3	24.1	23.9	23.8	23.8	23.6	23.4	23.4	23.3	23.2	23.3	23.2	23.1	23.2	23.1
13	26.2	25.1	24.6	24.4	24.2	24.1	23.9	23.9	23.7	23.5	23.4	23.3	23.1	23.3	23.2	23.2	23.1	23.0
18	26.2	25.2	24.8	24.4	24.2	24.2	24.0	23.9	23.9	23.5	23.4	23.3	23.3	23.4	23.2	23.1	23.1	23.1
23	26.6	25.5	24.9	24.7	24.5	24.3	24.1	23.9	23.9	23.6	23.4	23.4	23.4	23.4	23.3	23.3	23.2	23.1
28	26.3	25.4	24.9	24.8	24.6	24.3	24.1	23.8	23.7	23.6	23.5	23.4	23.4	23.5	23.3	23.3	23.3	23.1
33	26.2	25.5	25.0	24.9	24.7	24.4	24.2	23.8	23.7	23.7	23.6	23.7	23.5	23.6	23.4	23.4	23.3	23.2
38	26.3	25.4	25.1	25.0	24.8	24.5	24.3	24.0	23.9	23.8	23.7	23.7	23.6	23.6	23.4	23.4	23.3	23.2
43	26.4	25.3	25.0	24.9	24.8	24.6	24.3	23.7	23.7	23.7	23.7	23.7	23.5	23.6	23.5	23.5	23.4	23.3
48	26.5	25.3	24.9	24.9	24.7	24.6	24.1	23.8	23.7	23.7	23.7	23.7	23.5	23.7	23.5	23.4	23.4	23.4
53	26.5	25.4	25.1	24.8	24.7	24.4	24.1	24.0	23.9	23.8	23.7	23.7	23.6	23.7	23.6	23.5	23.4	23.4
58	26.1	25.2	25.0	24.9	24.5	24.3	24.2	24.0	23.9	23.8	23.7	23.6	23.5	23.7	23.5	23.4	23.5	23.4
63	26.2	25.3	24.9	24.7	24.5	24.2	24.1	24.0	23.8	23.7	23.6	23.6	23.5	23.7	23.5	23.5	23.6	23.6
68	26.9	25.6	25.1	24.9	24.6	24.1	24.0	24.0	23.8	23.7	23.6	23.5	23.5	23.7	23.6	23.7	23.6	23.6
73	26.9	26.2	25.7	25.0	24.6	24.2	24.1	24.1	23.7	23.8	23.7	23.7	23.5	23.8	23.7	23.8	23.8	23.7
78	26.6	26.4	26.1	26.0	25.8	24.6	24.2	24.0	23.8	23.8	23.7	23.6	23.5	24.0	24.0	23.9	23.7	23.5
83	27.6	27.4	27.1	26.3	26.0	25.6	24.8	24.3	24.0	23.9	23.8	23.8	23.9	24.2	24.0	24.0	24.0	23.8
88	28.8	28.1	27.3	26.7	26.1	25.5	25.0	24.5	24.2	24.1	24.0	24.1	24.1	24.3	24.1	24.1	24.5	24.4
93	31.1	30.0	28.7	26.8	26.0	25.5	25.2	24.9	24.7	24.3	24.2	24.2	24.5	24.7	24.9	24.6	24.6	24.4
98	35.0	32.5	29.6	27.0	26.9	27.0	26.0	25.9	25.5	25.3	25.3	25.3	25.6	25.5	25.6	25.4	25.0	24.4
103	50.9	48.5	44.5	37.2	33.2	30.8	29.2	28.5	27.9	27.9	27.1	27.1	26.6	26.4	26.1	25.7	25.4	25.1
108	98.4	87.6	81.5	57.9	46.0	40.8	38.3	36.5	37.1	37.0	35.5	33.4	33.8	30.9	31.0	29.7	29.6	29.6
113	160.8	151.4	135.9	108.2	93.1	80.8	74.7	72.1	69.9	61.3	59.6	56.9	56.1	42.7	43.6	43.1	41.3	39.7
118	289.3	267.3	246.1	223.6	198.0	166.2	150.0	124.3	119.5	117.8	118.2	114.2	102.2	78.7	79.4	71.3	57.7	45.9
123		338.1	329.4	313.6	303.2	266.0	225.3	200.7	195.7	188.8	195.6	191.2	169.0	133.9	137.8	125.5	92.1	65.3
128		373.5	355.2	328.2	315.8	301.3	285.4	257.6	253.0	251.2	246.5	242.3	231.9	198.9	192.7	164.4	131.0	89.2
133		374.0	358.6	343.4	325.8	312.8	303.8	294.0	295.5	288.3	276.9	258.5	254.6	230.5	219.4	204.9	175.5	141.8
138		421.7	408.9	381.6	360.7	343.6	338.4	332.9	327.5	321.9	316.4	302.3	281.9	254.6	247.7	226.5	201.1	188.6
143		391.6	387.1	379.9	363.9	346.2	340.1	334.8	332.4	327.3	327.4	316.2	303.5	292.5	281.0	262.1	239.2	211.7
148		403.8	401.6	391.5	368.5	349.5	343.7	339.3	340.1	335.5	327.2	316.4	301.0	287.8	269.9	257.1	238.9	214.9
153		362.6	358.6	353.3	344.0	337.8	340.0	341.5	345.6	342.8	337.4	325.8	309.7	295.1	268.3	253.6	234.7	201.9
158		391.0	386.8	380.4	370.7	358.3	349.6	345.0	343.1	333.6	319.5	307.5	299.3	286.1	269.9	256.3	246.0	219.7
163		392.9	394.4	391.3	370.5	351.3	344.7	340.1	338.8	335.4	326.7	309.3	287.1	285.6	265.9	247.9	228.8	202.8
168		375.9	371.9	367.2	351.2	336.8	336.8	337.8	336.8	329.6	324.2	307.3	296.3	284.9	264.9	249.4	232.5	214.9
173		398.6	387.1	372.7	350.5	342.3	338.3	334.3	328.0	318.3	312.2	304.5	291.8	278.3	259.4	238.9	224.7	205.0
178		375.4	372.4	365.1	353.1	346.4	347.6	342.5	335.4	331.1	323.2	316.1	300.4	287.1	275.2	248.6	229.6	206.2
183		352.3	354.7	355.0	352.2	344.5	338.2	332.5	326.4	323.9	319.1	313.5	300.0	280.0	246.5	229.5	218.8	199.5
188		341.1	340.5	339.4	338.3	332.9	328.6	320.8	315.2	305.5	296.4	290.9	283.0	270.7	254.4	239.7	216.3	190.0

Temperature measurements (°C), overcrowded experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
193		332.2	336.1	336.1	334.2	324.0	322.5	316.4	310.2	300.1	292.1	284.6	277.8	269.9	251.7	230.1	213.3	193.6
198		331.1	335.6	334.5	331.1	332.4	330.2	325.4	319.6	312.8	304.2	294.5	282.2	268.1	253.0	240.8	229.3	200.8
203		332.5	336.0	335.8	335.5	332.1	325.4	317.8	313.5	304.7	281.7	275.8	268.5	260.5	245.7	230.8	219.7	205.6
208		342.3	345.9	343.6	341.9	339.9	333.0	329.3	324.7	317.2	304.9	295.2	284.1	272.9	256.4	245.2	237.6	215.6
213		371.4	368.0	360.2	348.6	340.4	336.4	329.4	321.0	307.9	290.2	276.4	266.5	258.4	247.1	236.9	224.0	202.5
218		359.2	350.7	346.0	337.9	332.0	329.1	323.4	317.5	309.5	302.2	290.0	278.1	266.8	257.0	243.4	226.9	206.7
223		350.0	343.2	336.1	331.5	327.1	324.8	320.0	316.0	309.4	298.6	290.4	272.2	258.0	245.9	234.1	222.6	204.3
228		371.3	375.1	372.9	368.2	357.5	345.5	322.5	314.8	302.9	294.4	279.6	268.4	257.7	247.0	239.4	233.2	217.6
233		370.1	369.2	366.0	361.6	354.4	346.9	332.5	320.4	307.8	291.2	280.3	273.5	268.3	262.0	249.5	239.3	219.6
238		370.4	368.4	364.6	362.1	351.8	348.6	338.7	323.0	310.0	297.7	294.6	286.3	278.5	271.5	259.5	247.1	229.1
243		378.9	377.2	372.4	367.3	354.2	344.6	335.6	327.0	314.8	309.2	303.0	291.9	279.7	267.6	260.2	243.4	209.5
248		373.6	375.7	375.2	372.1	366.3	358.1	348.5	341.5	331.7	319.0	307.9	299.2	280.4	263.9	254.6	244.9	223.6
253		390.8	387.5	379.2	372.2	365.3	356.5	344.7	333.9	325.0	312.3	300.5	286.5	276.5	264.2	253.7	239.7	213.4
258		400.7	400.8	396.3	383.9	364.0	351.6	343.7	334.3	324.0	313.7	298.4	282.9	272.7	259.1	246.1	232.9	214.7
263		383.8	385.3	382.4	378.9	363.6	349.1	340.5	336.6	329.6	312.8	299.1	280.6	269.4	261.2	253.5	238.2	218.9
268		400.7	399.7	393.2	387.7	371.5	357.6	364.0	348.9	331.7	325.5	313.0	301.1	289.4	278.4	268.4	255.3	233.7
273		409.0	410.4	407.0	402.3	393.0	387.9	367.2	360.6	343.0	319.9	301.4	287.9	282.0	270.7	257.7	244.2	223.6
278		408.9	403.3	396.9	388.7	379.0	370.2	356.4	342.0	329.2	314.6	298.0	286.7	279.2	267.9	255.9	245.1	232.0
283		404.7	399.5	397.1	391.9	382.1	368.6	355.5	336.7	319.4	308.7	297.4	292.8	287.1	277.5	266.2	250.5	234.4
288		415.1	404.0	396.0	388.6	372.5	361.8	352.1	340.4	332.1	324.1	315.3	309.4	299.9	286.7	279.8	268.0	239.4
293		398.5	398.4	396.2	394.7	388.1	380.3	366.9	358.2	348.4	335.1	322.3	315.7	306.5	293.7	282.1	271.3	253.3
298		409.3	406.0	394.4	389.2	371.3	357.8	341.5	330.1	320.4	313.8	308.4	301.6	298.0	289.0	282.6	272.9	256.3
303		401.5	404.7	403.4	401.6	389.1	381.3	372.5	360.5	357.7	348.6	336.1	323.6	316.4	303.1	289.9	276.2	259.2
308		418.4	413.1	405.5	403.2	390.0	379.7	369.6	355.3	336.5	323.0	311.9	305.2	307.8	297.9	288.7	277.4	260.1
313		391.0	392.2	390.0	388.9	384.6	377.7	370.5	363.2	357.2	348.9	338.1	317.9	305.2	293.9	286.3	277.2	257.3
318		400.7	401.3	401.0	397.9	386.9	378.2	364.9	348.2	337.1	329.1	325.0	319.6	315.2	308.2	306.2	299.0	282.8
323		412.4	414.4	410.8	406.7	395.6	389.2	379.5	370.9	358.4	344.9	327.4	316.7	309.6	302.6	296.4	289.3	270.2
328		410.7	412.3	409.9	403.9	398.5	386.5	378.9	369.5	359.0	347.3	335.7	325.0	316.2	304.4	294.8	287.1	265.6
333		415.2	416.3	412.2	410.3	406.3	391.8	382.2	376.2	364.8	345.0	337.0	321.8	313.0	303.0	295.1	288.4	267.7
338		410.8	411.2	409.6	407.8	399.9	382.2	364.1	354.4	342.7	334.7	331.5	325.2	320.1	311.6	303.9	296.4	280.5
343		420.3	420.6	416.6	411.1	393.4	375.2	362.3	349.0	342.2	331.6	323.1	314.7	312.1	303.1	296.6	283.0	259.4
348		421.1	421.5	418.5	413.9	400.4	384.8	373.9	355.1	347.3	335.7	328.5	323.4	319.1	319.9	313.2	298.8	281.4

Temperature measurements (°C), overcrowded experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
-122	22.9	23.0	23.1	23.0	22.9	22.8	22.7	22.9	22.7	22.7	22.5	22.5	22.5	22.4	22.4	22.3	22.2	22.0
-117	22.9	23.0	23.1	23.0	22.9	22.8	22.7	22.9	22.7	22.6	22.5	22.5	22.5	22.4	22.3	22.2	22.2	22.1
-112	22.9	23.0	23.1	23.0	22.9	22.8	22.7	22.8	22.7	22.7	22.6	22.5	22.5	22.4	22.4	22.3	22.2	22.1
-107	23.0	23.0	23.1	23.0	22.9	22.9	22.7	22.8	22.8	22.8	22.7	22.6	22.4	22.4	22.4	22.3	22.2	22.1
-102	22.9	23.0	23.1	23.0	23.0	22.9	22.7	22.9	22.8	22.8	22.7	22.6	22.4	22.4	22.4	22.3	22.2	22.1
-97	22.9	23.0	23.1	23.0	22.9	22.9	22.8	22.9	22.8	22.8	22.7	22.6	22.4	22.4	22.4	22.3	22.2	22.1
-92	23.0	23.0	23.2	23.1	22.9	22.9	22.8	22.9	22.8	22.8	22.6	22.6	22.5	22.4	22.4	22.2	22.2	22.1
-87	23.0	23.0	23.2	23.1	22.9	22.9	22.8	22.9	22.8	22.7	22.6	22.6	22.5	22.4	22.4	22.3	22.2	22.1
-82	22.9	23.0	23.2	23.0	22.9	22.9	22.8	22.9	22.8	22.8	22.6	22.6	22.5	22.4	22.4	22.3	22.3	22.1
-77	22.9	23.0	23.1	23.0	23.0	22.9	22.8	22.9	22.8	22.8	22.7	22.6	22.5	22.5	22.4	22.3	22.3	22.1
-72	22.9	23.0	23.1	23.1	23.0	22.9	22.8	22.9	22.8	22.9	22.6	22.6	22.5	22.5	22.4	22.3	22.2	22.1
-67	22.9	23.0	23.1	23.0	23.0	22.9	22.8	22.9	22.8	22.8	22.6	22.6	22.5	22.5	22.4	22.3	22.3	22.1
-62	22.9	23.0	23.1	23.0	22.9	22.9	22.8	22.9	22.8	22.8	22.6	22.6	22.5	22.5	22.5	22.3	22.3	22.1
-57	22.9	23.0	23.1	23.0	23.0	22.9	22.8	22.9	22.8	22.8	22.7	22.6	22.6	22.5	22.4	22.3	22.2	22.1
-52	22.9	23.1	23.1	23.1	23.0	22.9	22.8	22.9	22.8	22.8	22.6	22.6	22.5	22.5	22.5	22.3	22.3	22.1
-47	22.9	23.0	23.2	23.1	23.0	22.9	22.8	22.8	22.8	22.8	22.6	22.6	22.5	22.5	22.5	22.4	22.3	22.1
-42	23.0	23.1	23.2	23.1	23.0	22.9	22.8	22.9	22.8	22.8	22.6	22.6	22.5	22.5	22.5	22.4	22.3	22.1
-37	23.0	23.1	23.2	23.1	23.0	22.9	22.7	22.8	22.9	22.9	22.6	22.6	22.6	22.5	22.5	22.4	22.3	22.1
-32	23.0	23.1	23.2	23.1	23.0	22.9	22.7	22.9	22.9	22.8	22.7	22.6	22.6	22.5	22.5	22.3	22.3	22.0
-27	23.0	23.1	23.1	23.1	23.0	22.9	22.7	22.9	22.8	22.9	22.7	22.7	22.6	22.5	22.5	22.3	22.3	22.1
-22	23.0	23.0	23.2	23.1	22.9	22.9	22.7	22.9	22.8	22.8	22.7	22.7	22.6	22.5	22.5	22.3	22.3	22.1
-17	22.9	23.0	23.1	23.0	22.9	22.9	22.8	22.9	22.8	22.8	22.8	22.7	22.6	22.5	22.5	22.3	22.3	22.1
-12	23.0	23.0	23.1	23.0	22.9	22.9	22.7	22.9	22.8	22.8	22.7	22.7	22.6	22.5	22.5	22.3	22.3	22.1
-7	23.0	23.1	23.2	23.1	23.0	22.9	22.7	22.9	22.8	22.8	22.7	22.7	22.6	22.6	22.5	22.4	22.3	22.1
-2	23.0	23.0	23.2	23.1	23.0	22.9	22.7	22.9	22.8	22.8	22.7	22.7	22.6	22.6	22.5	22.4	22.3	22.1
3	23.0	23.1	23.3	23.1	23.0	22.9	22.7	22.9	22.8	22.9	22.7	22.7	22.6	22.5	22.5	22.4	22.3	22.1
8	23.0	23.1	23.2	23.1	23.0	22.9	22.7	22.9	22.8	22.9	22.7	22.7	22.7	22.5	22.5	22.4	22.3	22.1
13	23.0	23.2	23.2	23.1	23.0	22.9	22.7	22.9	22.8	22.9	22.7	22.7	22.7	22.5	22.5	22.4	22.3	22.1
18	23.0	23.1	23.2	23.1	23.0	22.8	22.7	22.9	22.8	22.9	22.7	22.8	22.7	22.6	22.5	22.4	22.3	22.1
23	23.0	23.1	23.2	23.0	23.0	22.9	22.7	22.9	22.8	22.9	22.8	22.8	22.7	22.6	22.5	22.4	22.4	22.1
28	23.1	23.2	23.2	23.1	23.0	22.9	22.7	22.9	22.9	22.9	22.7	22.8	22.7	22.6	22.6	22.4	22.4	22.1
33	23.1	23.2	23.2	23.1	23.1	22.9	22.7	22.9	22.8	22.9	22.8	22.8	22.7	22.7	22.6	22.4	22.4	22.1
38	23.0	23.1	23.2	23.1	23.1	23.0	22.8	23.0	22.9	22.9	22.8	22.8	22.8	22.7	22.6	22.5	22.4	22.1
43	23.1	23.2	23.3	23.2	23.1	23.0	22.8	23.0	22.9	22.9	22.8	22.8	22.8	22.7	22.6	22.5	22.4	22.1
48	23.1	23.2	23.3	23.2	23.1	23.0	22.9	23.0	22.9	22.9	22.8	22.9	22.8	22.7	22.6	22.5	22.4	22.1
53	23.4	23.6	23.6	23.4	23.3	23.1	23.0	23.1	23.0	23.0	22.9	22.9	22.9	22.7	22.7	22.5	22.4	22.2
58	24.1	24.3	24.1	23.7	23.4	23.4	23.0	23.2	23.1	23.1	22.9	22.9	22.9	22.7	22.7	22.5	22.5	22.2
63	26.4	25.8	25.4	24.5	24.2	24.4	24.4	23.4	23.3	23.2	23.1	22.9	22.9	22.7	22.7	22.5	22.5	22.2
68	27.7	27.6	27.2	26.5	25.8	26.4	24.3	23.4	23.3	23.3	23.1	23.0	23.0	22.8	22.7	22.5	22.5	22.2
73	28.1	29.0	28.9	28.4	28.0	26.5	24.1	23.4	23.5	23.7	23.6	23.1	23.0	22.9	22.8	22.6	22.5	22.2
78	30.0	30.5	30.6	30.2	29.3	26.5	24.6	24.4	23.9	24.3	23.7	23.3	23.1	22.9	22.9	22.7	22.5	22.2
83	32.4	31.6	31.9	31.3	30.5	27.8	25.6	25.4	24.4	24.2	23.7	23.5	23.1	23.0	22.8	22.7	22.6	22.3
88	34.6	34.9	35.1	33.5	32.5	30.3	26.3	26.7	24.8	24.3	23.8	23.5	23.3	23.1	22.9	22.7	22.5	22.2
93	38.3	39.5	39.2	37.9	35.5	33.8	28.9	29.0	26.2	25.3	24.0	23.6	23.5	23.2	22.9	22.8	22.6	22.3
98	53.4	54.7	54.4	49.7	44.7	42.5	33.1	33.3	28.4	27.0	24.3	24.0	23.8	23.5	23.2	23.1	23.0	22.5
103	115.6	127.0	125.8	113.6	106.0	89.7	51.7	47.4	39.0	34.4	27.9	25.1	25.0	24.8	24.4	24.4	24.2	23.5
108	227.1	240.1	243.4	235.6	227.5	198.3	123.4	118.2	71.2	54.0	30.5	28.4	28.6	28.4	27.3	27.3	28.3	26.2
113	357.1	385.5	391.9	374.8	355.0	366.3	288.3	252.0	181.2	163.2	86.8	61.1	51.8	45.0	37.1	33.1	32.8	33.4
118	516.1	580.5	602.4	596.5	585.7	542.8	430.8	351.7	302.5	275.9	182.9	163.4	153.3	108.8	83.0	66.8	64.4	51.2
123	544.5	592.7	602.8	598.4	582.1	568.6	515.9	449.5	402.2	368.4	317.6	277.4	234.5	173.3	110.9	92.9	88.3	59.6
128	473.3	519.4	533.8	539.5	538.0	528.0	507.1	458.6	409.5	377.1	353.4	323.9	285.1	232.8	170.1	112.2	81.0	59.0
133	449.1	483.7	492.9	500.8	500.1	490.4	480.5	456.6	418.7	378.0	350.7	322.0	292.7	259.2	218.6	177.3	135.9	67.5
138	418.0	447.8	454.0	456.0	452.5	439.7	432.5	421.0	408.1	386.0	364.0	328.6	297.4	264.4	227.3	195.9	163.8	97.3
143	397.0	429.0	437.6	442.8	443.0	432.0	421.9	403.1	389.0	372.5	355.2	333.3	305.1	273.1	235.6	196.5	172.0	113.4
148	393.4	427.3	437.0	440.1	437.8	430.3	415.1	388.5	364.7	345.7	347.8	339.6	318.2	264.1	229.0	199.2	166.8	118.0
153	403.5	437.4	445.5	448.8	448.0	433.4	410.4	387.3	368.0	356.1	358.4	339.7	307.3	266.7	231.9	202.2	176.0	129.8
158	393.3	426.9	435.8	441.3	440.2	427.5	413.7	382.6	368.1	354.8	339.2	324.8	304.1	260.2	229.0	209.7	174.9	137.2
163	407.4	436.8	444.3	448.8	446.0	434.8	422.8	408.3	386.3	368.9	350.7	338.2	313.1	268.9	234.1	207.7	182.8	141.6
168	412.7	442.8	451.9	456.5	454.1	434.6	419.2	398.1	382.2	373.8	370.4	354.8	319.4	281.4	244.8	212.2	180.4	141.1
173	412.7	445.8	456.7	460.1	459.1	445.1	426.6	399.5	384.9	377.7	373.3	350.1	314.4	274.1	237.2	207.7	174.3	140.6
178	432.2	465.4	476.8	484.7	477.4	457.1	434.4	418.0	396.6	385.1	367.4	351.3	329.8	276.1	235.3	207.3	175.2	134.8
183	422.5	454.5	465.7	472.4	472.5	468.8	449.6	428.7	405.2	376.0	365.8	346.8	317.5	277.9	237.2	209.6	173.4	136.2
188	434.4	467.5	477.2	481.6	479.0	470.5	453.9	419.4	397.5	365.3	350.9	338.9	313.6	271.8	235.8	211.8	177.9	141.0

Temperature measurements (°C), overcrowded experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 3 tc 9	tree 3 tc 10	tree 3 tc 11	tree 3 tc 12	tree 3 tc 13	tree 3 tc 14	tree 3 tc 15	tree 3 tc 16	tree 3 tc 17	tree 3 tc 18
193	437.2	470.7	482.5	486.1	485.3	477.5	459.5	436.3	416.2	375.9	352.7	344.5	331.4	285.7	236.8	208.2	178.7	143.1
198	444.4	475.6	488.1	492.8	493.0	479.4	461.1	431.7	414.1	389.3	369.3	352.4	335.6	294.7	246.3	213.4	180.2	143.8
203	448.4	482.1	493.6	502.4	501.6	492.1	472.8	461.7	432.4	396.5	383.6	372.1	350.7	296.6	247.9	218.3	186.2	147.6
208	464.8	501.5	513.3	522.7	522.9	511.9	491.4	472.6	448.8	413.2	392.1	371.9	347.7	306.9	260.1	227.5	192.2	153.3
213	460.6	498.6	517.0	530.7	536.2	529.1	516.1	493.9	463.1	435.8	415.3	393.2	367.5	321.6	278.3	235.8	197.6	153.5
218	459.0	486.6	494.4	500.4	500.3	496.3	485.7	468.1	451.4	428.5	408.1	390.1	365.1	318.5	265.8	225.8	197.0	156.7
223	447.6	482.0	498.9	508.7	513.3	508.6	499.1	480.2	460.6	432.6	409.2	386.6	359.9	315.0	275.7	233.3	195.1	154.3
228	456.7	490.5	502.1	507.8	511.9	501.3	488.3	476.3	461.6	445.9	421.1	390.4	356.9	309.0	266.6	225.2	193.2	150.3
233	461.1	500.2	514.7	521.0	521.9	505.7	488.4	478.3	457.1	435.8	418.8	394.6	365.6	320.3	272.0	227.2	188.4	150.7
238	449.4	487.5	503.2	513.3	516.6	513.0	501.6	479.0	454.3	430.1	403.5	385.6	358.1	312.2	255.1	223.2	191.3	149.2
243	461.2	497.7	515.7	527.5	533.9	529.4	518.5	503.7	479.8	450.8	419.0	385.5	351.9	308.5	256.4	222.0	187.3	154.7
248	448.8	485.2	499.4	513.3	519.9	512.9	498.5	478.3	461.4	432.5	411.1	391.0	359.0	314.5	264.2	228.5	184.3	148.0
253	456.2	488.7	498.5	501.7	499.1	487.5	473.3	458.0	441.3	419.9	397.9	375.6	348.3	308.5	265.8	225.8	180.7	147.1
258	451.9	486.9	497.5	503.3	503.1	491.4	476.0	456.2	431.5	403.1	382.4	362.9	340.5	309.2	259.5	223.5	176.1	143.6
263	446.0	478.3	486.5	489.6	489.0	480.7	461.9	446.3	431.0	413.3	394.2	375.2	343.0	297.9	252.8	216.6	182.8	146.6
268	447.4	481.3	497.3	505.5	507.7	499.1	483.2	464.7	436.2	421.1	415.2	390.4	355.3	308.6	264.8	227.2	183.8	149.2
273	470.0	486.4	506.1	511.2	513.6	505.5	489.9	475.9	459.2	444.0	417.1	389.3	364.0	315.3	269.0	235.8	190.5	144.8
278	473.6	488.1	509.0	512.9	515.0	504.9	489.6	471.9	450.9	420.9	399.7	381.9	355.8	312.1	268.6	234.2	191.5	149.4
283	482.8	495.7	507.4	506.0	505.0	492.6	473.9	463.6	448.8	431.9	421.7	400.6	370.6	322.9	273.3	229.4	190.9	151.6
288	467.5	480.7	493.3	494.8	497.9	488.1	471.6	456.6	439.9	419.3	397.7	375.7	355.1	306.8	262.5	229.3	188.9	151.3
293	468.6	484.7	500.9	505.4	510.7	506.5	486.3	468.0	434.8	421.5	409.2	391.8	368.7	321.0	279.1	244.1	201.7	153.8
298	466.1	478.9	491.2	494.6	496.6	490.9	473.1	445.5	439.1	428.4	419.9	392.4	356.6	304.6	256.6	224.5	194.5	149.7
303	468.1	481.3	497.3	497.3	494.5	481.8	466.9	457.7	436.6	415.5	402.3	372.3	347.1	306.8	269.2	237.6	203.7	165.5
308	461.8	474.1	485.2	486.7	486.0	475.8	460.7	448.3	443.7	425.2	407.8	372.0	343.7	304.8	263.1	231.0	191.7	154.9
313	469.8	485.8	506.2	509.0	509.4	499.1	482.8	471.5	455.0	444.8	423.9	401.4	370.8	324.9	283.9	251.6	208.6	164.4
318	476.1	488.6	503.8	504.0	501.7	488.5	475.1	457.3	448.5	437.5	424.6	405.3	379.4	329.0	288.5	254.6	219.9	160.6
323	479.2	491.2	505.5	506.6	503.5	490.8	473.5	456.0	447.7	437.3	418.2	392.8	366.9	326.4	289.9	253.5	216.0	164.5
328	479.4	492.0	513.3	519.1	526.0	520.0	505.4	491.2	473.2	460.3	424.3	398.8	373.3	334.9	296.2	263.5	220.6	160.6
333	474.6	488.9	507.3	514.1	518.7	505.6	489.0	468.6	455.5	439.6	430.5	393.6	368.5	331.8	291.4	256.4	219.1	167.5
338	478.2	493.1	512.2	519.0	525.6	517.7	502.3	483.1	466.1	438.8	420.0	390.8	367.9	329.1	292.8	254.2	217.7	168.2
343	482.4	496.7	512.3	517.5	525.2	521.2	511.2	501.5	479.6	452.5	430.4	402.9	376.7	342.3	294.8	255.4	222.7	167.6
348	482.2	495.9	514.3	518.5	523.2	513.5	494.1	479.4	462.0	448.1	431.9	409.8	378.8	341.9	290.1	248.0	219.7	169.0

Temperature measurements (°C), overcrowded experiment

time (s)	tree 4 tc 1	tree 4 tc 2	tree 4 tc 3	tree 4 tc 4	tree 4 tc 5	tree 4 tc 6	pendant tc	sidewall tc
-122	21.2	24.1	20.7	20.6	28.1	20.8	24.6	22.5
-117	21.2	24.1	21.1	21.2	27.6	21.4	22.5	22.5
-112	21.4	24.0	21.5	21.6	27.3	21.7	22.5	24.6
-107	21.1	24.0	21.1	21.4	27.3	21.6	26.7	20.5
-102	21.6	24.0	21.6	21.6	27.2	21.8	24.6	20.5
-97	21.1	24.0	21.1	21.2	27.5	21.5	22.5	20.5
-92	20.9	24.0	20.9	21.0	27.8	21.1	20.5	22.6
-87	20.8	24.1	20.8	20.8	28.0	21.0	22.6	22.6
-82	20.9	24.1	20.8	20.8	28.0	20.9	22.6	24.6
-77	21.4	24.0	21.4	21.3	27.6	21.3	22.6	22.6
-72	21.1	24.1	21.0	21.0	27.8	21.3	22.6	22.6
-67	21.5	24.0	21.6	21.8	26.8	22.7	24.6	22.6
-62	22.9	24.1	22.8	22.8	26.4	22.6	24.6	24.6
-57	22.7	24.1	22.1	21.9	26.5	22.8	22.6	22.6
-52	23.2	24.0	22.8	22.5	26.3	22.7	20.5	22.6
-47	22.6	24.1	22.3	22.2	26.6	22.4	24.6	22.6
-42	23.0	24.1	22.9	22.8	26.1	23.0	22.6	24.6
-37	23.8	24.1	23.4	23.2	25.6	23.3	22.6	22.6
-32	23.8	24.1	23.4	23.5	25.6	23.7	22.6	22.6
-27	23.9	24.2	23.6	23.7	25.5	23.9	22.6	20.5
-22	22.5	24.2	23.1	22.6	25.8	23.4	24.6	22.6
-17	22.3	24.1	22.6	22.5	26.1	23.1	22.6	24.6
-12	23.8	24.2	23.2	23.3	25.6	23.5	22.6	24.6
-7	24.2	24.2	23.5	23.4	25.6	23.4	22.6	20.5
-2	24.1	24.1	23.6	23.5	25.5	23.7	22.6	22.6
3	24.4	24.1	23.5	23.4	25.5	24.0	24.6	22.6
8	24.4	24.0	23.6	23.5	25.5	24.0	22.6	22.6
13	24.1	24.0	23.6	23.2	25.4	24.0	24.6	20.5
18	23.9	24.0	23.5	23.5	25.5	23.8	22.6	22.6
23	24.4	23.9	23.7	23.6	25.5	23.7	24.7	20.5
28	24.5	23.9	23.6	23.6	25.5	23.7	22.6	24.7
33	23.7	23.9	23.6	23.7	25.4	23.7	26.7	22.6
38	23.8	23.8	23.7	23.6	25.5	23.7	26.7	22.6
43	23.8	23.8	23.8	23.8	25.3	23.8	26.7	22.6
48	23.8	23.9	23.2	23.1	25.7	23.5	26.7	22.6
53	23.9	24.0	23.7	23.7	25.4	24.0	35.0	20.5
58	24.0	23.9	24.0	24.0	25.2	24.0	39.1	22.6
63	24.6	23.7	24.4	24.1	25.2	23.9	43.2	22.6
68	25.5	23.6	24.8	24.0	25.2	24.0	45.2	22.6
73	26.1	23.6	25.7	25.3	24.5	24.2	49.3	20.5
78	26.6	23.7	25.6	24.9	24.3	24.7	51.3	24.7
83	27.2	23.7	25.4	25.2	24.6	24.6	61.5	22.6
88	29.6	23.6	27.0	26.0	24.0	24.6	67.6	24.7
93	33.0	23.5	30.5	26.9	23.5	24.6	95.9	22.6
98	36.9	23.4	34.6	31.6	22.3	25.3	247.5	24.7
103	58.6	23.4	39.7	31.0		28.6	344.9	26.7
108	105.2	23.4	82.5	57.1		36.2	629.6	35.0
113	198.9	23.5	138.3	95.9		64.7	766.0	67.6
118	381.2	23.7	302.0	265.1		136.7	707.0	143.0
123	514.8	23.9	414.6	341.6		211.3	631.6	358.9
128	453.0	23.9	413.4	370.7		282.6	594.1	
133	488.9	24.2	383.5	352.6		302.4	731.0	
138	483.2	24.8	422.3	369.5		296.5	709.0	
143	469.4	25.3	439.6	407.1		354.7	693.3	
148	465.2	25.8	453.5	430.3		362.0	693.3	
153	474.4	26.5	453.2	434.0		381.2	744.0	
158	478.9	28.0	470.8	429.1		370.0	754.0	
163	470.2	28.3	440.2	404.8		334.0	778.0	
168	458.2	28.0	431.4	393.8		324.7	733.0	
173	442.8	27.8	416.7	376.2		337.9	766.0	
178	424.6	26.8	350.5	337.1		363.8	846.0	
183	418.7	26.5	437.1	385.5		347.8	852.0	
188	420.3	26.8	410.1	346.1		329.4	831.0	

Temperature measurements (°C), overcrowded experiment

time (s)	tree 4 tc 1	tree 4 tc 2	tree 4 tc 3	tree 4 tc 4	tree 4 tc 5	tree 4 tc 6	pendant tc	sidewall tc
193	417.1	27.2	416.9	379.7		342.0	896.0	
198	425.0	28.2	422.1	421.3		358.2	864.0	
203	465.0	29.7	472.1	423.9		331.3	819.0	
208	432.9	30.6	442.3	429.8		373.6	697.3	
213	477.0	31.3	468.1	458.5		388.1	661.4	
218	432.6	32.9	421.6	409.1		391.3	641.5	
223	432.6	34.1	406.4	375.8		363.7	657.4	
228	434.3	35.5	427.6	407.7		377.2	655.4	
233	424.4	36.2	405.1	374.3		357.1	675.3	
238	461.6	36.7	443.1	431.0		415.7	675.3	
243	457.7	37.1	453.8	445.7		388.4	671.4	
248	456.0	37.1	431.5	421.9		409.1	675.3	
253	460.1	37.0	448.0	449.8		405.3	677.3	
258	454.7	36.5	461.9	463.2		405.9	675.3	
263	450.8	37.2	447.7	395.4		355.6	677.3	
268	467.2	38.8	470.7	457.0		384.9	687.3	
273	459.3	39.2	457.3	440.2		392.1	701.0	
278	480.1	39.1	480.5	475.5		366.3	703.0	
283	499.0	39.1	486.5	479.4		383.4	699.3	
288	494.0	39.3	481.9	474.3		439.8	681.3	
293	485.0	39.0	482.3	460.2		395.2	681.3	
298	489.8	40.6	493.5	476.0		408.9	693.3	
303	473.6	39.9	479.3	458.4		406.4	707.0	
308	495.1	38.8	485.8	472.3		409.0	711.0	
313	468.6	38.1	455.8	429.7		399.8	707.0	
318	508.7	38.7	505.9	487.3		451.7	705.0	
323	485.3	38.1	472.6	476.2		455.1	721.0	
328	504.9	38.3	497.4	487.6		452.2	717.0	
333	487.0	39.2	474.1	474.5		425.4	723.0	
338	490.9	40.6	498.4	468.3		411.5	717.0	
343	508.5	40.3	490.8	476.7		413.2	715.0	
348	490.2	41.4	505.1	503.7		439.0	729.0	

APPENDIX D. TEMPERATURE MEASUREMENTS (SECTION 5)

Temperature measurements (°C), overcrowded experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8
-62	25.3	25.2	25.0	24.9	25.0	24.8	24.6	24.6	25.5	25.5	25.1	25.1	25.1	25.0	25.2	25.2
-57	25.3	25.3	25.2	25.1	25.2	25.1	25.0	24.7	25.6	25.5	25.2	25.2	25.2	25.1	25.3	25.0
-52	25.3	25.2	25.0	25.0	24.7	24.7	24.7	24.6	25.6	25.5	25.2	25.1	25.3	25.3	25.5	25.3
-47	25.1	25.0	24.9	24.8	24.9	24.8	24.6	24.5	25.7	25.6	25.5	25.4	25.4	25.3	25.6	25.4
-42	25.0	24.9	25.0	25.3	25.5	25.6	25.6	25.2	25.7	25.4	25.2	25.4	25.7	25.7	26.0	25.2
-37	25.1	25.1	25.1	25.3	25.3	25.2	25.7	25.3	25.7	25.3	25.3	25.7	25.9	25.9	26.2	25.2
-32	25.3	25.2	25.1	25.2	25.3	25.9	26.1	25.1	25.7	25.5	25.4	25.7	25.9	25.9	26.1	25.6
-27	25.3	25.2	25.2	25.4	25.7	25.6	25.5	25.0	25.6	25.6	25.6	25.8	25.9	25.8	25.8	25.6
-22	25.4	25.3	25.3	25.5	25.3	25.1	25.2	25.1	25.7	25.7	25.7	25.9	26.2	26.1	26.1	25.9
-17	25.5	25.4	25.3	25.4	25.1	25.1	25.1	24.9	25.8	25.7	25.6	25.6	25.6	25.8	26.0	25.7
-12	25.4	25.4	25.3	25.3	25.3	25.1	25.2	25.1	25.8	25.8	25.7	25.6	25.5	25.5	25.7	25.7
-7	25.3	25.3	25.3	25.2	25.0	24.8	24.8	24.8	25.7	25.7	25.7	25.6	25.7	25.1	25.1	25.6
-2	25.4	25.3	25.3	25.1	25.0	24.9	24.9	24.7	25.7	25.6	25.5	25.6	25.0	24.9	25.1	25.3
3	25.3	25.3	25.3	25.3	25.1	24.9	25.1	24.6	25.6	25.5	25.5	25.4	25.0	25.0	25.3	25.3
8	25.5	25.4	25.3	25.4	25.3	25.3	25.3	25.2	25.6	25.5	25.4	25.7	25.7	25.7	26.1	25.6
13	25.5	25.4	25.3	25.3	25.2	25.3	25.1	25.2	25.6	25.7	25.7	26.2	26.0	25.9	25.9	25.5
18	25.5	25.4	25.4	25.5	25.5	25.6	25.6	25.2	25.8	25.7	25.7	26.0	26.1	26.0	26.1	25.5
23	25.5	25.9	25.7	26.0	26.1	26.3	26.2	25.7	25.8	25.9	25.9	26.0	26.1	26.0	26.3	25.8
28	25.8	25.8	25.7	25.9	26.0	26.0	26.1	25.4	25.9	25.9	25.9	26.0	26.0	25.8	25.9	25.6
33	25.8	25.9	25.9	26.0	25.9	25.8	25.5	25.3	25.9	25.9	25.9	25.9	25.9	26.0	26.1	26.0
38	25.9	25.9	25.5	25.4	25.4	25.4	25.3	25.2	25.9	25.9	25.8	26.0	26.2	25.7	25.9	25.8
43	25.7	25.6	25.6	25.7	25.6	25.4	24.9	25.0	25.9	25.7	25.6	25.8	26.0	25.6	25.7	25.4
48	25.7	25.8	25.5	25.3	25.2	25.1	24.9	24.8	25.7	25.6	25.7	25.6	25.7	25.4	25.6	25.3
53	25.8	25.7	25.6	25.7	25.5	25.5	25.3	25.0	26.5	26.0	26.9	25.4	25.3	25.3	25.6	25.4
58	25.8	25.7	25.5	25.3	25.1	24.9	24.6	24.7	26.1	25.9	25.6	25.7	25.8	25.7	26.0	25.7
63	25.7	25.5	25.3	25.1	25.1	25.0	24.9	24.9	25.9	26.0	25.8	25.9	25.6	25.4	25.6	25.5
68	25.6	25.3	25.2	25.2	25.1	25.2	25.1	24.9	26.0	25.8	25.7	25.3	25.5	25.8	25.7	25.5
73	25.4	25.4	25.3	25.3	25.5	25.4	25.4	24.9	25.9	25.5	25.5	25.7	25.6	25.2	25.4	25.3
78	25.7	25.5	25.8	25.7	25.7	25.6	25.2	24.8	27.1	25.7	25.5	25.5	25.6	25.8	25.8	25.6
83	27.2	25.7	25.6	25.3	25.2	25.1	24.8	24.7	26.3	25.9	25.6	26.4	25.9	25.5	25.9	25.6
88	27.7	26.3	25.9	25.6	25.3	25.6	24.9	24.6	27.8	26.1	26.0	25.8	25.6	25.5	25.6	25.2
93	30.0	30.9	28.9	26.4	25.6	25.4	25.3	24.8	27.6	26.4	25.8	25.6	25.4	25.2	25.3	25.2
98	30.8	31.5	29.8	26.5	25.6	25.4	25.2	24.8	26.6	25.9	25.7	25.4	25.0	25.0	25.1	25.1
103	33.1	31.6	30.8	29.2	27.2	25.8	25.4	24.7	27.7	28.4	27.7	27.3	25.6	25.1	25.1	25.0
108	31.6	28.0	27.3	26.7	26.5	26.3	25.9	25.5	27.8	26.8	28.8	33.8	28.8	25.2	26.0	25.4
113	31.9	27.0	26.6	26.5	26.5	26.3	25.4	25.3	28.0	28.8	28.0	27.3	25.8	24.9	24.9	24.9
118	32.9	29.0	26.7	26.4	26.2	26.2	25.4	25.3	31.5	31.1	31.0	28.4	26.7	26.2	25.7	25.6
123	27.6	27.7	27.3	27.7	28.0	27.9	26.9	25.7	32.5	33.6	29.3	26.8	25.4	25.4	25.2	25.2
128	39.9	27.9	27.6	26.9	27.0	26.2	26.2	26.6	34.4	32.4	30.0	27.0	25.6	25.7	26.2	26.0
133	50.3	42.1	37.6	29.6	27.8	26.4	25.5	25.9	40.3	40.2	33.8	29.4	27.6	26.3	26.2	26.2
138	106.0	62.8	53.4	40.1	29.7	28.4	27.5	26.0	46.4	42.7	36.1	30.3	27.3	26.2	25.9	25.8
143	251.7	180.8	144.4	60.7	31.8	31.3	29.8	28.4	151.6	160.9	99.1	55.3	32.8	30.6	29.6	28.7
148	447.5	310.3	257.4	250.8	121.1	55.8	42.6	29.6	618.5	731.0	92.2	46.1	34.6	38.0	30.0	30.3
153	476.1	425.9	409.0	365.8	188.8	93.0	71.9	34.1	545.5	625.5	367.9	98.2	57.5	50.3	33.5	36.4
158	654.1	642.8	606.3	556.5	527.3	216.9	77.8	40.4	618.7	629.6	638.0	227.5	96.3	64.9	39.0	39.5
163	692.2	736.0	772.0	829.0	697.0	432.1	154.4	60.0	712.0	711.0	789.0	643.4	237.2	100.0	42.0	46.0
168	629.9	670.2	707.0	732.0	838.0	599.2	143.5	69.6	678.3	685.2	653.3	861.0	303.0	122.6	53.7	44.7
173	705.0	700.0	747.0	756.0	733.0	701.0	191.7	105.4	752.0	735.0	753.0	755.0	566.2	164.7	60.6	54.9
178	804.0	860.0	833.0	815.0	790.0	780.0	390.3	236.4	724.0	737.0	746.0	859.0	585.2	223.3	69.1	72.5
183	818.0	860.0	875.0	810.0	812.0	819.0	624.9	452.4	750.0	732.0	736.0	788.0	495.7	260.1	84.0	69.7
188	786.0	786.0	797.0	781.0	787.0	791.0	890.0	867.0	782.0	774.0	771.0	872.0	480.6	207.6	88.8	76.2
193	708.0	707.0	730.0	720.0	697.3	736.0	677.5	668.9	779.0	776.0	775.0	793.0	501.1	168.9	83.7	79.5
198	639.7	622.5	643.4	643.9	617.6	658.9	582.6	473.8	747.0	751.0	744.0	730.0	472.0	170.0	97.5	77.4
203	627.1	625.6	631.8	643.2	619.7	654.4	561.7	453.4	738.0	741.0	728.0	735.0	426.5	223.0	86.3	75.5
208	614.1	606.8	611.1	627.4	610.9	629.0	540.7	391.8	719.0	718.0	695.0	501.6	293.6	141.2	71.7	68.3
213	633.7	626.4	635.5	653.8	633.6	657.3	569.0	410.7	790.0	785.0	774.0	891.0	601.3	151.5	96.5	78.6
218	659.0	645.9	663.6	681.0	656.4	685.7	608.8	464.6	834.0	831.0	832.0	877.0	520.5	167.5	89.9	77.5
223	627.7	611.7	623.6	640.8	620.2	638.1	552.7	389.6	847.0	846.0	840.0	699.4	369.1	178.6	109.5	93.6
228	621.0	622.8	618.6	638.5	621.0	635.8	559.7	421.7	838.0	836.0	831.0	828.0	510.7	192.4	114.9	93.2
233	604.8	598.8	595.4	612.4	599.3	606.6	473.2	375.6	877.0	867.0	878.0	960.0	599.3	309.9	161.7	109.5

Temperature measurements (°C), overcrowded experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8
238	578.1	568.7	566.9	584.2	568.8	573.2	444.4	362.8	841.0	833.0	817.0	513.2	384.5	340.4	204.0	105.7
243	557.1	555.0	546.6	562.8	550.3	551.2	431.9	327.4	760.0	759.0	747.0	413.1	287.9	208.8	119.1	94.4
248	531.4	531.8	524.3	539.5	526.5	532.1	441.3	339.9	757.0	750.0	755.0	403.2	290.4	192.3	121.4	88.1
253	535.9	542.5	533.6	548.7	534.2	542.4	470.8	355.5	723.0	717.0	717.0	371.3	280.6	197.8	123.9	80.9
258	605.2	607.2	604.4	627.2	604.8	619.5	569.7	453.9	803.0	788.0	794.0	557.1	353.7	210.9	142.0	84.0
263	657.7	652.9	652.0	679.3	650.8	670.0	622.9	479.7	838.0	827.0	831.0	763.0	422.0	231.2	119.7	93.9
268	635.6	623.6	624.7	642.9	624.1	638.7	576.1	450.5	830.0	824.0	825.0	659.8	336.5	211.5	115.9	89.6
273	676.5	672.1	670.4	697.0	672.6	687.1	620.3	449.6	860.0	858.0	854.0	641.3	389.4	196.7	119.0	96.2
278	686.7	684.2	678.1	702.0	683.1	696.9	599.2	440.0	873.0	871.0	872.0	615.9	387.7	233.4	119.8	93.9
283	699.4	702.0	693.9	721.0	701.0	713.0	631.3	464.2	872.0	870.0	864.0	585.5	375.7	213.5	118.6	96.6
288	695.2	687.9	689.1	711.0	686.9	706.0	618.4	468.9	833.0	834.0	833.0	514.7	316.9	205.6	134.2	85.1
293	641.2	632.3	633.6	643.1	627.1	643.3	552.6	448.9	820.0	824.0	800.0	452.3	315.0	180.2	115.2	92.8
298	619.2	610.5	615.1	625.3	608.5	624.5	548.1	473.3	832.0	831.0	824.0	510.6	333.0	194.7	123.1	90.9
303	602.6	601.2	599.0	607.7	597.3	607.7	541.7	474.4	842.0	840.0	824.0	570.7	373.2	223.3	125.0	87.2
308	618.0	610.1	617.9	629.0	609.9	628.5	575.4	483.5	807.0	812.0	791.0	556.8	352.7	207.2	145.9	88.6
313	610.4	600.2	610.2	618.6	600.0	619.5	562.7	470.9	812.0	816.0	826.0	538.9	364.0	254.6	158.8	86.1
318	667.9	670.3	671.3	698.1	682.3	697.4	680.8	566.6	863.0	862.0	897.0	903.0	547.8	283.3	166.0	114.6
323	708.0	699.8	713.0	729.0	698.7	734.0	678.6	575.4	923.0	920.0	934.0	760.0	583.1	368.6	209.8	150.0
328	713.0	704.0	722.0	726.0	696.4	735.0	670.1	583.4	948.0	947.0	964.0	680.1	492.1	308.4	196.0	143.6
333	698.5	693.9	714.0	707.0	695.6	727.0	683.4	654.2	964.0	963.0	981.0	909.0	488.3	302.2	191.3	126.4
338	741.0	743.0	751.0	737.0	742.0	757.0	734.0	738.0	969.0	971.0	984.0	752.0	470.8	293.9	179.1	123.8
343	725.0	717.0	723.0	716.0	711.0	723.0	706.0	636.4	923.0	931.0	904.0	525.7	399.3	277.7	158.1	112.9
348	695.0	681.4	686.0	683.8	671.6	689.9	674.4	608.6	915.0	924.0	943.0	861.0	457.4	279.5	142.3	119.1
353	725.0	717.0	726.0	707.0	705.0	711.0	722.0	697.6	920.0	924.0	944.0	959.0	478.6	284.7	158.4	103.2
358	740.0	746.0	737.0	736.0	728.0	718.0	736.0	716.0	959.0	960.0	975.0	888.0	539.9	286.1	172.4	111.7
363	688.2	681.5	681.4	677.0	667.5	670.4	684.1	672.7	927.0	929.0	889.0	590.3	443.9	297.7	201.6	123.7
368	688.5	684.1	676.8	669.7	659.5	661.1	679.5	639.0	888.0	895.0	911.0	710.0	455.3	299.7	211.4	118.8
373	641.2	632.0	630.2	630.1	621.1	622.3	632.8	603.7	880.0	886.0	890.0	727.0	461.5	293.7	209.0	102.8
378	672.2	667.5	674.7	653.7	663.5	648.8	679.0	664.1	854.0	863.0	879.0	829.0	447.6	258.9	189.4	103.9
383	763.0	766.0	791.0	737.0	784.0	742.0	777.0	785.0	865.0	870.0	890.0	879.0	508.0	251.2	218.7	107.6
388	753.0	757.0	754.0	739.0	758.0	746.0	728.0	749.0	893.0	895.0	926.0	966.0	823.0	365.4	240.7	93.9
393	706.0	698.4	700.0	704.0	696.2	706.0	689.1	701.0	915.0	884.0	868.0	889.0	589.7	374.9	277.8	108.5
398	641.4	631.3	629.6	636.9	624.4	634.9	622.6	631.2	861.0	847.0	798.0	598.4	497.5	376.2	312.1	121.8
403	612.1	603.9	601.9	608.1	599.7	604.9	598.7	602.2	819.0	829.0	778.0	562.0	479.3	377.2	323.1	143.8
408	588.7	580.8	578.8	584.7	578.4	581.7	576.2	578.0	816.0	843.0	786.0	571.8	510.1	384.0	329.4	171.3
413	574.3	568.5	566.9	572.0	568.6	569.1	566.0	566.2	810.0	837.0	861.0	663.9	528.7	387.2	342.3	176.4
418	583.7	582.2	580.7	582.5	584.8	580.5	581.9	580.0	853.0	874.0	893.0	906.0	775.0	455.7	528.7	245.2
423	588.9	587.2	584.7	586.7	587.9	585.4	586.2	583.8	738.0	824.0	791.0	833.0	794.0	666.3	633.5	347.7
428	570.4	563.7	561.5	565.2	559.8	563.8	559.6	559.1	744.0	730.0	723.0	913.0	980.0	875.0	650.4	605.8
433	554.6	550.6	546.7	552.2	548.2	549.7	548.4	545.6	710.0	724.0	731.0	852.0	898.0	822.0	600.8	542.2
438	545.4	541.7	538.8	543.4	538.8	541.0	540.2	536.8	707.0	725.0	729.0	773.0	765.0	804.0	527.6	461.7
443	543.0	541.9	540.6	542.0	540.4	539.4	542.9	540.4	696.8	720.0	715.0	869.0	895.0	770.0	617.6	513.7
448	539.9	538.1	535.8	538.6	536.8	536.8	539.3	535.6	687.7	732.0	717.0	819.0	819.0	798.0	587.6	645.7
453	628.2	634.3	638.4	637.9	644.1	638.1	646.6	639.4	693.5	743.0	732.0	809.0	815.0	829.0	617.5	637.4
458	608.6	601.9	603.6	606.3	594.6	604.2	602.6	602.2	718.0	771.0	760.0	833.0	816.0	847.0	747.0	764.0
463	587.7	580.1	581.1	585.2	573.0	581.1	580.1	579.9	755.0	813.0	803.0	859.0	848.0	858.0	841.0	814.0
468	578.1	573.3	573.6	577.6	572.2	574.7	576.2	576.0	782.0	834.0	832.0	871.0	870.0	871.0	870.0	841.0
473	612.8	614.9	616.5	617.3	621.0	616.7	623.5	620.4	800.0	848.0	841.0	869.0	876.0	882.0	869.0	868.0
478	631.5	630.5	631.9	633.5	633.0	634.2	636.2	636.7	807.0	854.0	845.0	866.0	880.0	885.0	874.0	867.0
483	656.7	652.4	654.9	656.9	650.3	655.4	654.8	655.6	806.0	853.0	845.0	870.0	864.0	865.0	858.0	839.0
488	644.8	641.7	641.1	645.4	641.6	645.3	643.9	645.2	822.0	878.0	867.0	892.0	877.0	882.0	875.0	856.0
493	824.0	830.0	834.0	849.0	865.0	857.0	852.0	842.0	841.0	896.0	886.0	909.0	901.0	901.0	894.0	875.0
498	812.0	791.0	816.0	811.0	812.0	824.0	822.0	749.0	806.0	804.0	863.0	923.0	916.0	908.0	901.0	891.0
503	766.0	733.0	751.0	725.0	735.0	727.0	716.0	713.0	741.0	783.0	765.0	922.0	910.0	883.0	897.0	892.0
508	697.8	691.5	690.4	688.7	689.0	691.9	697.8	702.0	748.0	778.0	741.0	899.0	874.0	844.0	875.0	860.0
513	673.5	673.5	678.6	675.0	671.7	677.1	687.7	695.4	770.0	805.0	741.0	900.0	850.0	823.0	874.0	834.0
518	691.6	708.0	712.0	692.9	725.0	717.0	712.0	719.0	732.0	754.0	726.0	811.0	825.0	809.0	798.0	812.0
523	703.0	716.0	717.0	698.7	723.0	713.0	712.0	721.0	726.0	788.0	766.0	754.0	836.0	841.0	747.0	827.0
528	705.0	710.0	714.0	698.2	721.0	715.0	723.0	725.0	748.0	716.0	742.0	753.0	817.0	815.0	733.0	813.0
533	706.0	712.0	718.0	699.2	714.0	717.0	717.0	713.0	732.0	737.0	752.0	768.0	826.0	821.0	755.0	807.0
538	685.6	686.0	695.1	679.5	684.9	688.1	688.3	685.7	685.5	691.6	692.0	729.0	766.0	734.0	759.0	729.0
543	671.6	682.7	682.6	665.4	691.3	684.3	674.2	671.5	622.9	614.0	724.0	646.9	641.5	615.4	681.1	616.1
548	671.8	675.7	683.2	667.4	691.0	690.2	674.2	674.2	703.0	781.0	770.0	624.7	612.6	597.2	647.4	783.0

Temperature measurements (°C), overcrowded experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8
553	666.0	663.3	677.5	666.8	676.7	685.7	668.9	670.6	734.0	747.0	777.0	598.4	572.5	573.3	633.2	756.0
558	663.1	655.8	673.9	667.0	667.1	681.3	667.1	670.9	743.0	705.0	729.0	593.4	535.9	530.6	605.1	693.8
563	661.4	650.3	673.2	667.6	659.6	678.1	666.2	672.3	753.0	735.0	748.0	657.8	553.5	631.9	627.8	689.0
568	658.5	642.8	668.9	666.5	651.1	670.6	663.7	671.2	774.0	771.0	738.0	722.0	657.1	753.0	700.0	702.0
573	650.0	633.9	657.0	660.0	640.9	652.3	654.8	665.2	746.0	770.0	753.0	765.0	755.0	815.0	752.0	741.0
578	642.7	628.9	645.8	652.9	637.2	642.4	646.3	659.1	743.0	796.0	777.0	798.0	786.0	830.0	786.0	775.0
583	637.6	624.3	636.0	643.4	630.7	636.2	639.5	652.4	739.0	777.0	789.0	825.0	805.0	840.0	826.0	819.0
588	637.3	623.8	635.1	636.6	630.8	635.3	639.7	648.9	745.0	765.0	788.0	832.0	808.0	820.0	841.0	838.0
593	635.1	622.4	632.2	630.9	629.3	632.7	636.7	644.1	735.0	769.0	787.0	843.0	809.0	820.0	841.0	841.0
598	632.5	618.7	628.5	627.5	624.8	628.9	633.4	641.7	665.6	711.0	734.0	764.0	752.0	747.0	790.0	801.0
603	630.4	617.6	627.1	625.4	623.9	627.1	631.2	640.5	651.5	701.0	709.0	763.0	737.0	737.0	770.0	786.0
608	629.7	619.0	627.7	624.2	627.6	628.9	630.5	640.6	732.0	761.0	766.0	829.0	770.0	779.0	793.0	816.0
613	632.2	624.4	633.3	624.8	636.0	635.2	632.8	643.0	782.0	807.0	797.0	878.0	807.0	818.0	812.0	841.0
618	642.5	633.4	644.0	634.8	648.9	650.0	641.5	654.5	762.0	775.0	764.0	821.0	775.0	784.0	773.0	813.0
623	653.3	643.5	656.5	645.8	662.0	665.3	651.8	666.1	762.0	771.0	763.0	820.0	765.0	777.0	763.0	811.0
628	661.5	646.5	660.9	657.6	664.8	674.2	659.2	674.5	743.0	738.0	746.0	787.0	743.0	757.0	739.0	787.0
633	651.5	635.4	650.6	644.5	650.8	658.3	648.9	659.9	776.0	752.0	750.0	765.0	721.0	736.0	722.0	767.0
638	645.3	631.7	645.5	634.7	647.3	652.3	642.2	649.2	849.0	817.0	801.0	766.0	796.0	736.0	753.0	756.0
643	642.6	631.6	644.7	629.8	649.1	652.8	639.8	645.9	864.0	829.0	798.0	777.0	726.0	733.0	724.0	767.0
648	640.4	629.3	641.7	628.4	646.9	651.5	638.0	643.6	891.0	830.0	768.0	782.0	721.0	739.0	734.0	768.0
653	644.3	636.4	648.9	631.8	661.4	667.0	643.6	650.0	762.0	711.0	710.0	754.0	708.0	725.0	722.0	751.0
658	643.7	630.7	643.8	632.1	649.6	658.4	640.3	648.8	821.0	772.0	688.3	727.0	685.6	699.1	701.0	728.0
663	641.0	629.0	641.9	630.8	650.1	658.0	638.9	647.5	838.0	795.0	697.1	739.0	692.6	711.0	713.0	734.0
668	650.7	643.7	655.7	638.4	674.9	683.7	650.3	657.4	886.0	836.0	691.7	727.0	691.3	709.0	712.0	727.0
673	658.9	654.2	666.2	647.3	689.9	700.0	661.2	668.1	879.0	829.0	678.7	723.0	684.8	703.0	711.0	722.0
678	680.5	671.3	683.9	673.1	707.0	726.0	687.5	697.1	824.0	725.0	658.7	721.0	678.0	695.9	709.0	715.0
683	699.3	686.3	701.0	691.9	720.0	740.0	699.9	710.0	867.0	808.0	669.0	732.0	691.7	715.0	729.0	732.0
688	717.0	715.0	718.0	709.0	734.0	751.0	725.0	734.0	832.0	782.0	667.3	721.0	690.1	709.0	727.0	736.0
693	723.0	703.0	719.0	712.0	727.0	745.0	722.0	734.0	842.0	750.0	662.1	729.0	695.7	716.0	735.0	758.0
698	712.0	689.1	710.0	701.0	715.0	730.0	707.0	721.0	794.0	792.0	666.6	733.0	696.4	711.0	746.0	776.0
703	708.0	692.8	709.0	701.0	718.0	733.0	708.0	721.0	840.0	816.0	653.8	738.0	689.2	701.0	732.0	764.0
708	708.0	692.1	709.0	699.1	721.0	736.0	706.0	718.0	815.0	814.0	662.3	731.0	682.7	695.3	735.0	765.0
713	698.1	683.7	699.0	693.5	705.0	715.0	697.3	709.0	787.0	817.0	669.6	714.0	676.2	688.4	744.0	760.0
718	716.0	704.0	715.0	715.0	734.0	753.0	711.0	722.0	861.0	819.0	676.4	696.7	670.7	693.5	742.0	774.0
723	733.0	718.0	733.0	737.0	753.0	779.0	724.0	738.0	865.0	809.0	675.5	684.4	670.7	696.9	766.0	811.0
728	750.0	730.0	744.0	757.0	757.0	782.0	737.0	752.0	860.0	810.0	682.3	692.9	681.0	692.7	751.0	764.0
733	770.0	736.0	752.0	772.0	756.0	782.0	753.0	771.0	877.0	815.0	670.5	709.0	679.1	678.1	746.0	755.0
738	776.0	732.0	747.0	770.0	750.0	776.0	763.0	783.0	910.0	830.0	613.5	702.0	670.4	670.0	761.0	778.0
743	764.0	727.0	742.0	757.0	751.0	776.0	758.0	780.0	968.0	861.0	580.5	720.0	685.7	694.1	772.0	786.0
748	755.0	724.0	739.0	746.0	746.0	770.0	756.0	780.0	994.0	877.0	560.8	760.0	716.0	731.0	789.0	814.0
753	737.0	716.0	730.0	729.0	741.0	764.0	734.0	756.0	976.0	874.0	628.3	769.0	731.0	734.0	778.0	799.0
758	722.0	709.0	722.0	720.0	733.0	753.0	718.0	738.0	954.0	885.0	671.8	778.0	739.0	743.0	795.0	807.0
763	732.0	712.0	726.0	723.0	742.0	765.0	715.0	735.0	948.0	876.0	687.2	753.0	734.0	745.0	793.0	808.0
768	721.0	703.0	716.0	718.0	734.0	756.0	700.0	718.0	943.0	891.0	698.2	754.0	746.0	776.0	801.0	824.0
773	723.0	702.0	717.0	719.0	735.0	761.0	693.4	709.0	908.0	852.0	711.0	750.0	731.0	761.0	784.0	805.0
778	727.0	708.0	724.0	724.0	740.0	768.0	690.0	701.0	898.0	848.0	683.2	734.0	717.0	720.0	756.0	760.0
783	727.0	706.0	724.0	724.0	742.0	768.0	681.3	684.1	861.0	838.0	678.1	748.0	727.0	711.0	771.0	776.0
788	729.0	708.0	728.0	729.0	742.0	766.0	677.0	673.1	940.0	869.0	682.2	759.0	744.0	750.0	793.0	820.0
793	732.0	712.0	733.0	732.0	740.0	761.0	682.9	672.3	1035.0	909.0	679.1	778.0	751.0	788.0	809.0	880.0
798	731.0	716.0	733.0	732.0	738.0	754.0	691.8	676.2	1011.0	894.0	691.5	782.0	738.0	853.0	818.0	924.0
803	733.0	720.0	735.0	733.0	738.0	755.0	698.9	677.1	980.0	910.0	717.0	790.0	790.0	916.0	837.0	942.0
808	729.0	719.0	734.0	731.0	735.0	750.0	701.0	672.2	976.0	909.0	743.0	794.0	796.0	908.0	832.0	921.0
813	726.0	718.0	731.0	729.0	730.0	745.0	703.0	672.1	972.0	886.0	823.0	773.0	748.0	831.0	805.0	841.0
818	718.0	712.0	724.0	722.0	723.0	735.0	696.7	665.1	926.0	870.0	812.0	768.0	739.0	806.0	815.0	844.0
823	710.0	704.0	715.0	713.0	713.0	726.0	692.0	661.4	923.0	886.0	840.0	774.0	751.0	840.0	826.0	858.0
828	705.0	702.0	709.0	709.0	712.0	723.0	691.0	663.2	879.0	843.0	783.0	758.0	721.0	787.0	787.0	782.0
833	699.5	696.6	704.0	702.0	705.0	718.0	685.1	659.8	800.0	775.0	702.0	735.0	699.3	753.0	741.0	722.0
838	694.4	692.1	698.0	697.9	702.0	716.0	680.9	656.0	752.0	740.0	667.6	724.0	697.7	751.0	727.0	716.0
843	690.4	688.1	693.7	693.5	698.3	712.0	677.9	653.7	723.0	704.0	642.0	711.0	697.4	741.0	702.0	696.8
848	690.3	686.0	691.4	691.6	698.2	711.0	676.3	651.7	731.0	739.0	636.3	706.0	696.8	737.0	692.4	693.4
853	687.5	683.8	688.8	687.7	694.9	707.0	674.9	652.7	781.0	774.0	631.3	705.0	696.5	729.0	688.9	688.6
858	686.6	682.8	688.4	685.2	694.0	707.0	675.9	656.0	784.0	777.0	630.4	706.0	697.1	725.0	685.5	690.0
863	686.5	681.5	687.3	684.1	692.6	706.0	676.2	655.7	783.0	781.0	639.6	712.0	699.8	731.0	694.6	707.0

Temperature measurements (°C), overcrowded experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8
868	683.8	680.0	685.3	681.4	690.5	704.0	674.5	656.4	820.0	816.0	656.4	731.0	720.0	752.0	715.0	735.0
873	684.0	680.5	685.4	681.1	689.5	704.0	674.8	657.0	862.0	831.0	662.2	742.0	721.0	747.0	723.0	731.0
878	681.8	679.2	684.5	679.0	687.1	702.0	675.3	658.8	849.0	821.0	669.4	748.0	725.0	748.0	729.0	736.0
883	681.0	677.9	684.0	679.2	685.4	700.0	675.0	659.1	842.0	829.0	683.9	767.0	743.0	763.0	747.0	767.0
888	681.8	679.2	685.9	680.5	685.4	699.9	675.5	661.6	870.0	851.0	703.0	779.0	760.0	787.0	767.0	792.0
893	682.0	678.5	684.5	679.8	682.7	697.9	672.7	660.0	874.0	851.0	715.0	777.0	751.0	796.0	769.0	787.0
898	675.0	673.8	681.0	675.9	678.0	692.0	670.2	659.6	842.0	835.0	716.0	763.0	737.0	790.0	754.0	774.0
903	675.7	674.3	682.8	677.0	677.8	691.8	672.2	663.1	811.0	817.0	717.0	756.0	752.0	788.0	751.0	786.0
908	674.3	672.9	681.6	676.7	677.1	690.2	671.4	661.9	869.0	852.0	781.0	763.0	744.0	799.0	758.0	795.0
913	674.1	672.1	681.6	676.3	675.5	688.1	670.5	661.0	896.0	844.0	821.0	765.0	805.0	812.0	767.0	782.0
918	670.0	668.9	678.4	673.2	672.0	684.8	668.0	657.7	905.0	836.0	811.0	769.0	745.0	753.0	765.0	763.0
923	667.1	666.3	675.3	669.9	668.2	681.0	663.7	654.4	943.0	861.0	930.0	796.0	813.0	861.0	784.0	801.0
928	665.4	665.3	673.8	669.2	668.2	681.0	662.1	654.0	933.0	852.0	947.0	817.0	844.0	890.0	796.0	791.0
933	666.2	665.3	674.1	669.0	668.8	680.8	662.5	655.1	886.0	828.0	822.0	782.0	743.0	745.0	782.0	753.0
938	665.4	664.1	672.2	668.3	667.6	679.6	661.8	654.9	860.0	810.0	760.0	758.0	722.0	735.0	758.0	727.0
943	663.6	662.8	671.9	668.0	666.6	678.5	661.4	655.5	875.0	811.0	705.0	746.0	716.0	732.0	744.0	720.0
948	664.6	662.3	672.2	668.3	666.8	678.1	661.5	655.7	898.0	818.0	692.1	750.0	720.0	737.0	749.0	730.0
953	662.6	660.0	669.9	666.1	664.2	675.3	659.7	654.1	874.0	806.0	684.4	749.0	718.0	730.0	745.0	724.0
958	661.8	659.7	669.6	665.7	664.0	674.7	659.0	652.9	899.0	819.0	679.6	746.0	716.0	734.0	747.0	730.0
963	661.2	658.9	668.6	665.1	663.0	673.5	659.2	653.5	886.0	811.0	688.5	746.0	714.0	728.0	746.0	726.0
968	661.2	659.2	669.6	665.8	663.1	673.1	659.3	653.5	882.0	809.0	681.4	743.0	710.0	728.0	741.0	721.0
973	661.8	659.4	670.1	666.3	663.2	674.2	659.9	654.4	912.0	825.0	697.1	754.0	715.0	732.0	752.0	734.0
978	659.9	657.6	668.6	664.9	661.6	672.5	659.0	653.8	881.0	812.0	733.0	751.0	707.0	723.0	746.0	722.0
983	659.5	657.2	668.7	665.1	661.7	672.2	658.8	653.9	905.0	822.0	757.0	753.0	707.0	727.0	745.0	727.0
988	659.8	660.6	668.7	665.3	662.2	672.3	659.2	654.3	880.0	809.0	822.0	748.0	701.0	719.0	735.0	721.0
993	676.7	660.8	670.3	665.6	660.8	671.4	658.8	653.8	881.0	809.0	892.0	755.0	722.0	756.0	732.0	724.0
998	661.3	654.9	663.5	660.5	657.0	667.0	653.4	648.4	894.0	824.0	935.0	789.0	777.0	834.0	739.0	734.0
1003	656.9	652.2	658.8	657.2	654.1	664.1	649.1	644.9	894.0	819.0	933.0	812.0	824.0	905.0	747.0	741.0
1008	654.6	651.5	656.7	655.8	653.7	664.1	647.7	644.8	874.0	804.0	772.0	760.0	732.0	739.0	737.0	716.0
1013	652.6	649.4	653.2	653.1	650.9	662.4	645.5	642.8	853.0	794.0	756.0	732.0	691.4	707.0	716.0	700.0
1018	651.0	648.0	651.2	651.5	650.7	662.0	643.9	642.3	889.0	811.0	775.0	731.0	693.1	712.0	720.0	705.0
1023	649.7	645.3	647.6	648.1	647.9	659.5	640.5	639.4	913.0	820.0	911.0	754.0	707.0	731.0	732.0	722.0
1028	646.3	642.7	644.0	645.2	646.2	657.7	638.0	638.3	895.0	811.0	901.0	751.0	718.0	740.0	735.0	717.0
1033	644.4	640.3	640.9	642.5	643.1	656.1	636.1	637.6	868.0	796.0	852.0	735.0	707.0	730.0	722.0	706.0
1038	644.6	640.5	641.2	643.5	645.2	657.8	636.2	638.2	852.0	787.0	836.0	723.0	703.0	724.0	712.0	696.9
1043	642.4	636.5	637.9	639.3	641.9	654.8	633.3	636.2	835.0	777.0	797.0	706.0	685.8	704.0	698.3	680.5
1048	640.0	635.0	635.6	637.5	640.6	653.7	631.8	635.6	823.0	772.0	720.0	688.8	675.3	687.6	681.3	668.4
1053	639.0	635.1	636.1	637.6	641.8	654.7	633.0	636.9	834.0	783.0	667.7	683.3	675.1	691.5	678.6	673.1
1058	638.5	634.8	634.6	636.0	640.5	654.4	633.3	636.4	830.0	774.0	682.3	674.6	672.6	686.0	672.4	667.0
1063	636.1	631.7	630.6	634.2	639.4	653.1	632.2	636.7	826.0	772.0	669.4	670.1	670.9	686.2	662.3	660.1
1068	635.6	631.5	631.4	633.1	637.9	651.3	630.6	634.5	824.0	772.0	605.9	663.3	668.8	687.6	656.4	660.5
1073	636.9	631.4	631.1	632.8	638.3	651.3	630.1	635.6	849.0	790.0	644.7	666.4	672.5	694.0	668.3	677.1
1078	639.2	631.4	631.6	633.2	638.1	652.3	629.2	636.5	875.0	805.0	648.3	665.5	676.7	697.5	678.4	696.2
1083	634.8	627.3	627.5	628.8	633.2	648.7	626.3	632.8	890.0	806.0	652.7	668.1	677.4	693.4	686.4	707.0
1088	623.9	621.9	621.7	623.7	627.9	645.2	621.5	628.1	868.0	793.0	641.1	669.7	678.2	695.6	688.9	702.0
1093	628.6	623.7	623.7	624.4	629.7	644.9	621.8	630.1	849.0	786.0	629.6	664.4	673.9	682.9	685.7	688.6
1098	628.0	621.5	620.8	622.0	627.4	643.4	619.4	627.5	839.0	780.0	623.7	662.2	668.6	676.9	680.0	687.1
1103	627.5	621.7	620.0	621.2	628.1	642.6	618.4	628.3	852.0	786.0	618.2	665.5	667.6	676.5	685.6	702.0
1108	623.3	620.1	619.1	620.2	627.5	642.6	616.9	627.0	857.0	790.0	623.8	669.3	670.0	678.3	691.5	712.0
1113	623.3	619.6	618.0	619.1	628.2	642.4	617.0	626.7	871.0	794.0	634.6	681.1	677.9	686.6	705.0	736.0
1118	622.4	619.2	618.3	619.0	628.3	643.0	615.3	626.0	872.0	793.0	645.3	687.8	680.8	686.9	712.0	733.0
1123	623.4	619.6	618.4	619.5	628.7	643.3	616.5	626.6	852.0	783.0	697.7	671.4	666.8	678.4	696.9	723.0
1128	622.7	619.2	617.8	619.1	628.5	643.2	616.2	626.2	853.0	783.0	713.0	669.8	666.5	676.8	693.5	728.0
1133	621.1	616.2	614.9	615.9	625.3	640.3	613.4	624.2	866.0	787.0	740.0	679.3	675.4	681.9	700.0	744.0
1138	621.9	616.2	614.1	615.0	624.9	640.9	612.7	622.4	884.0	793.0	742.0	694.5	688.7	692.5	713.0	765.0
1143	620.1	615.1	613.9	614.5	623.7	639.7	612.6	624.1	866.0	784.0	845.0	676.1	673.9	679.7	696.8	741.0
1148	619.8	615.0	613.1	613.6	623.3	639.2	612.3	623.1	892.0	793.0	807.0	650.9	676.2	682.0	693.8	756.0
1153	617.4	614.3	613.3	610.8	620.4	639.3	611.1	625.0	941.0	822.0	868.0	708.0	705.0	719.0	731.0	808.0
1158	614.8	610.1	608.0	606.9	615.4	635.4	605.8	617.8	953.0	836.0	972.0	760.0	747.0	764.0	790.0	831.0
1163	613.4	607.4	606.1	605.3	614.3	632.7	604.4	616.7	957.0	846.0	906.0	797.0	778.0	810.0	848.0	867.0
1168	613.9	607.8	606.0	605.1	615.1	633.8	605.8	619.3	934.0	846.0	893.0	788.0	855.0	856.0	827.0	834.0
1173	613.2	606.9	604.5	604.4	614.3	633.6	604.1	618.6	925.0	848.0	878.0	784.0	863.0	865.0	810.0	819.0
1178	612.0	605.6	604.3	602.4	612.8	632.1	602.7	616.3	929.0	845.0	883.0	787.0	852.0	858.0	813.0	814.0

Temperature measurements (°C), overcrowded experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8
1183	612.2	605.7	604.8	603.1	613.6	631.4	603.2	617.4	890.0	821.0	761.0	722.0	786.0	812.0	760.0	778.0
1188	611.9	605.9	604.9	603.2	613.8	632.0	604.2	617.7	852.0	795.0	687.9	672.8	725.0	762.0	717.0	754.0
1193	612.0	604.4	603.1	602.4	611.2	630.4	603.1	616.9	851.0	793.0	638.6	667.2	701.0	737.0	721.0	763.0
1198	610.1	603.6	603.5	601.7	611.4	630.6	602.8	616.8	844.0	787.0	667.9	667.6	701.0	748.0	719.0	752.0
1203	610.8	603.7	602.4	602.4	611.1	630.6	602.4	616.9	827.0	777.0	666.6	652.9	687.5	742.0	695.3	732.0
1208	610.6	603.0	602.0	601.7	610.7	630.5	601.2	616.2	811.0	760.0	650.3	634.9	668.1	716.0	662.9	711.0
1213	609.2	602.4	601.7	601.1	609.7	629.9	601.2	615.8	806.0	756.0	630.5	630.8	669.8	710.0	650.1	701.0
1218	609.4	603.0	602.1	602.1	610.6	630.5	601.4	616.3	815.0	764.0	607.2	632.2	670.2	711.0	655.8	708.0
1223	612.0	603.5	605.1	603.7	610.9	630.6	602.6	616.2	853.0	777.0	606.9	641.8	681.3	721.0	672.1	723.0
1228	610.6	603.4	607.1	606.0	612.3	631.6	603.2	617.2	761.0	724.0	605.4	609.1	657.4	700.0	633.7	698.4
1233	612.3	604.3	606.8	606.8	611.6	632.4	602.5	617.0	683.6	671.8	601.0	608.1	661.2	706.0	629.2	700.0
1238	610.6	603.7	606.0	604.1	612.3	630.2	600.4	616.1	667.6	651.6	615.1	611.0	662.7	712.0	626.1	702.0
1243	605.5	595.9	597.8	598.5	603.9	626.4	594.6	610.4	667.4	651.4	660.1	614.7	665.4	717.0	630.8	705.0
1248	603.6	594.7	596.6	598.2	603.1	626.4	593.6	609.6	674.4	656.4	669.9	612.3	663.4	716.0	634.2	709.0
1253	602.6	597.5	598.1	599.7	607.2	628.8	595.9	611.7	682.5	657.5	629.4	602.0	643.8	694.6	619.8	695.9
1258	605.0	600.9	600.1	601.1	609.6	631.5	597.7	614.5	681.7	656.4	604.9	598.5	633.8	680.8	611.9	688.0
1263	603.5	599.8	599.4	607.2	613.0	630.9	595.8	618.1	688.8	657.6	594.4	597.6	640.9	686.0	611.4	691.7
1268	604.3	600.8	600.3	602.1	612.2	634.2	597.8	615.9	670.9	646.3	589.9	594.9	644.4	692.0	614.3	699.5
1273	604.2	601.1	600.0	601.0	613.4	634.4	597.8	617.2	676.7	640.7	621.1	590.6	637.7	684.3	610.5	694.5
1278	597.7	604.6	604.4	597.9	609.8	633.1	602.7	621.6	687.4	643.7	623.0	588.2	637.9	686.1	609.4	695.7
1283	603.0	598.0	595.3	597.2	609.8	636.1	593.8	624.5	693.1	648.0	629.0	583.5	635.6	685.5	604.3	691.2
1288	592.3	590.0	588.5	589.1	599.9	625.6	583.9	621.0	701.0	653.9	643.2	581.5	634.7	685.6	599.9	694.3
1293	601.5	593.5	599.7	594.6	605.8	628.3	586.7	629.0	713.0	663.5	658.9	581.7	636.1	688.8	603.5	702.0
1298	606.1	597.4	599.1	594.3	607.6	629.4	587.5	632.6	729.0	676.4	664.2	584.1	572.5	584.2	605.7	714.0
1303	598.4	595.2	596.0	594.9	607.5	627.7	583.4	628.9	729.0	679.2	643.7	580.4	573.2	583.4	607.2	715.0
1308	589.7	587.7	585.3	585.9	597.9	620.9	575.2	615.7	695.3	658.2	653.4	581.5	575.1	582.1	605.1	718.0
1313	581.0	583.4	577.1	581.0	591.0	616.6	571.4	612.8	698.2	662.8	660.8	582.8	579.1	585.4	608.8	726.0
1318	581.4	581.6	576.9	579.6	589.9	616.5	571.2	612.4	712.0	679.1	650.9	585.3	661.1	707.0	615.7	734.0
1323	580.0	581.0	576.4	578.0	591.8	618.4	572.3	613.2	721.0	689.9	647.8	591.0	702.0	720.0	616.1	733.0
1328	581.2	581.5	577.0	578.8	590.6	617.9	572.3	613.8	730.0	698.3	658.7	594.4	719.0	734.0	621.0	733.0
1333	581.3	581.1	576.4	577.1	591.4	618.6	572.5	613.9	725.0	697.5	658.7	591.6	688.9	721.0	617.1	724.0

Temperature measurements (°C), overcrowded experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 4 tc 1	tree 4 tc 2	tree 4 tc 3	tree 4 tc 4	tree 4 tc 5	tree 4 tc 6	tree 4 tc 7	tree 4 tc 8	tree 4 tc 9
-62	25.3	25.2	25.3	25.3	25.3	25.6	25.7	25.1	25.4	25.4	25.4	25.4	25.4	25.3	25.2	25.1	25.0
-57	25.4	25.3	25.3	25.4	25.5	25.6	25.8	25.6	25.3	25.3	25.4	25.3	25.4	25.4	25.3	25.2	25.2
-52	25.7	25.6	25.6	25.4	25.4	25.4	25.5	25.3	25.3	25.2	25.3	25.2	25.4	25.4	25.3	25.3	25.4
-47	25.6	25.4	25.5	25.6	25.9	25.8	26.2	25.9	25.3	25.2	25.3	25.2	25.4	25.4	25.6	25.5	25.4
-42	25.6	25.4	25.7	25.9	25.9	26.0	26.6	26.9	25.3	25.3	25.3	25.4	25.5	25.7	25.8	25.7	25.4
-37	25.6	25.5	25.7	26.1	26.1	26.4	26.1	26.2	25.3	25.2	25.2	25.3	25.4	25.8	25.9	25.7	25.4
-32	25.9	25.9	26.0	26.0	26.2	26.5	26.6	25.9	25.4	25.3	25.3	25.2	25.4	25.9	26.0	25.7	25.4
-27	25.9	26.0	26.0	26.2	26.2	26.3	26.3	26.0	25.4	25.3	25.3	25.3	25.5	25.8	26.0	25.7	25.6
-22	25.9	26.0	26.1	26.2	26.2	26.1	26.1	26.1	25.6	25.7	25.7	25.7	26.0	26.1	26.1	25.8	25.5
-17	25.9	26.1	26.0	26.2	26.0	25.9	25.5	25.6	25.7	25.6	25.6	25.7	25.9	25.9	26.0	26.0	26.0
-12	25.9	26.0	26.1	26.0	25.9	25.9	25.7	25.6	25.6	25.7	25.6	25.6	25.8	25.9	25.9	25.9	25.7
-7	25.9	26.0	26.0	26.1	25.9	25.7	25.5	25.4	25.7	25.6	25.6	25.6	25.8	25.8	25.9	25.8	25.7
-2	25.9	26.0	26.1	26.1	26.0	25.6	25.4	25.2	25.7	25.6	25.6	25.6	25.7	25.6	25.5	25.4	25.3
3	25.9	25.9	25.9	25.9	25.9	25.6	25.9	25.2	25.6	25.6	25.5	25.5	25.7	25.6	25.4	25.4	25.1
8	25.7	25.6	25.7	25.8	25.9	25.9	26.0	25.5	25.6	25.6	25.5	25.5	25.7	25.7	25.6	25.4	25.2
13	25.8	25.7	25.8	25.8	25.9	25.9	25.9	25.6	25.5	25.4	25.3	25.4	25.6	25.7	25.6	25.4	25.3
18	25.7	25.9	25.8	25.9	25.8	25.7	25.8	25.6	25.5	25.4	25.4	25.3	25.6	25.7	25.7	25.6	25.3
23	25.8	25.9	25.9	25.9	25.9	25.9	25.9	25.5	25.6	25.6	25.6	25.6	26.1	26.1	26.0	25.7	25.6
28	25.8	25.8	25.5	25.6	25.7	24.5	24.0	24.6	25.5	25.5	25.6	25.7	26.0	25.9	25.8	25.7	25.6
33	25.6	25.6	25.7	25.8	25.6	25.3	24.8	24.6	25.6	25.6	25.6	25.6	25.7	25.8	25.7	25.6	25.6
38	25.5	25.6	25.8	25.7	25.4	25.1	25.1	24.9	25.6	25.5	25.6	25.7	25.9	25.9	25.9	25.6	25.8
43	25.3	25.2	25.4	25.4	25.2	25.1	25.1	25.1	25.6	25.7	25.6	25.7	25.9	25.9	25.8	25.7	25.8
48	25.2	25.2	25.3	25.3	25.1	24.9	24.8	24.8	25.6	25.6	25.7	25.7	25.8	25.7	25.6	25.6	25.6
53	25.2	25.2	25.3	25.4	25.3	25.4	25.3	25.0	25.6	25.6	25.5	25.5	25.6	25.7	25.5	25.3	25.3
58	25.3	25.3	25.5	25.3	25.1	24.7	24.6	24.8	25.5	25.5	25.7	25.6	25.7	25.8	25.6	25.5	25.3
63	25.1	25.1	25.3	25.2	24.9	24.7	24.4	24.5	25.4	25.4	25.4	25.6	25.9	25.8	25.8	25.7	25.7
68	25.0	25.1	25.4	25.5	25.3	24.9	24.9	24.7	25.5	25.7	25.7	25.6	25.7	25.6	25.5	25.4	25.4
73	25.1	25.1	25.2	25.4	25.4	25.3	24.9	25.0	26.3	26.1	25.9	25.9	26.0	26.0	26.0	25.5	25.3
78	25.2	25.1	25.2	25.3	25.4	25.5	25.3	25.2	25.9	25.9	25.7	25.8	25.8	25.7	25.6	25.3	25.1
83	25.3	25.2	25.3	25.5	25.5	25.0	24.5	24.8	26.3	26.3	26.6	26.6	26.2	25.9	25.7	25.5	25.5
88	25.3	25.3	25.3	25.4	25.3	25.0	24.8	24.7	26.3	26.5	26.6	26.5	26.5	26.0	25.9	25.7	25.5
93	25.2	25.2	25.3	25.1	25.0	24.9	24.7	24.5	26.4	26.4	26.2	26.0	26.0	25.7	25.5	25.3	25.3
98	25.1	25.1	25.3	25.3	25.3	24.8	23.9	24.5	26.4	26.3	26.1	25.9	25.7	25.5	25.4	25.4	25.3
103	25.2	25.2	25.4	25.1	25.3	24.7	23.9	24.3	26.1	26.2	26.0	25.8	25.9	25.4	25.2	25.2	25.2
108	25.4	25.4	25.5	25.4	25.2	25.0	24.8	24.5	25.8	25.8	26.0	26.4	26.3	26.0	25.6	25.1	25.0
113	25.5	25.5	25.5	25.3	25.3	25.1	25.1	25.1	27.0	26.7	27.4	27.0	26.4	26.2	26.0	25.9	25.5
118	25.8	25.4	25.5	25.4	25.1	24.9	25.0	25.0	27.1	26.9	26.7	26.3	26.0	25.8	25.5	25.5	25.5
123	25.6	26.0	26.0	25.3	25.1	25.3	25.6	25.3	26.9	26.8	26.5	26.0	25.8	25.7	25.4	25.3	24.9
128	27.2	27.5	26.5	25.4	25.2	25.0	25.2	25.1	27.7	27.2	26.3	26.0	25.8	25.8	25.5	25.2	25.0
133	28.0	27.8	27.0	26.3	25.7	25.6	25.5	25.1	28.1	27.9	27.1	26.7	26.6	26.3	26.0	25.8	25.5
138	27.4	27.3	26.7	26.4	26.0	25.7	25.4	25.2	28.9	29.0	28.5	27.8	27.4	27.0	26.7	26.3	26.0
143	33.1	40.0	31.3	26.5	26.1	26.2	25.9	25.7	28.7	29.1	29.5	28.8	28.0	27.4	26.6	26.0	25.7
148	72.7	87.6	47.0	47.6	30.9	27.3	28.1	25.6	54.9	37.3	32.5	30.5	28.4	27.7	27.5	26.7	26.1
153	246.1	194.9	149.6	111.1	49.9	32.8	28.8	26.9	131.4	49.5	34.2	28.9	28.0	26.6	26.6	26.5	26.5
158	357.2	378.3	284.3	256.8	106.2	35.1	31.6	29.3	235.8	131.0	46.9	30.6	29.4	28.3	27.8	26.9	26.6
163	378.9	419.6	403.1	336.3	158.2	47.3	40.1	31.3	341.4	261.0	94.2	42.8	34.9	31.1	30.7	27.9	27.3
168	369.9	396.4	368.1	363.1	252.2	97.6	65.1	34.7	453.0	321.0	207.1	162.1	116.5	49.1	33.1	29.7	30.2
173	352.6	391.3	367.6	347.1	273.3	115.1	59.3	40.4	387.4	321.9	231.9	190.0	138.9	57.9	36.7	30.9	29.8
178	389.4	427.2	416.1	370.1	335.6	212.1	92.0	46.4	412.7	344.9	261.3	214.5	148.6	71.8	37.8	32.3	32.2
183	385.0	438.9	438.3	407.8	329.9	277.6	150.7	69.4	420.3	376.5	283.8	246.7	198.2	101.9	40.1	33.1	31.7
188	323.5	363.7	380.2	383.0	351.2	263.9	139.5	91.5	437.1	384.1	309.1	246.3	201.1	133.8	42.1	33.0	32.0
193	301.5	335.2	337.4	362.4	349.1	209.2	125.3	93.6	469.9	372.7	291.1	229.8	175.7	114.3	39.5	33.0	33.5
198	286.2	314.7	322.4	334.6	318.6	259.7	183.5	87.6	656.9	653.9	484.6	310.5	186.9	134.1	40.0	32.4	32.3
203	310.3	333.7	332.0	339.8	317.2	273.5	144.1	91.3	511.2	420.2	338.9	265.3	184.6	118.4	40.9	33.3	32.5
208	314.8	337.8	338.1	349.7	327.2	185.2	73.7	65.9	395.3	357.7	286.4	252.0	162.3	110.7	41.4	33.5	32.7
213	309.4	335.6	338.2	329.4	281.1	203.5	86.5	45.5	474.9	369.5	284.5	218.9	154.6	103.8	40.4	34.3	34.4
218	351.6	367.3	378.5	388.9	320.7	251.8	122.1	62.5	518.8	473.7	368.6	273.8	179.2	107.5	40.0	34.3	34.6
223	369.5	411.8	417.7	394.7	344.0	206.1	84.7	75.6	527.4	544.4	536.3	485.1	332.0	129.2	45.3	35.8	34.0
228	355.0	388.8	426.3	395.8	335.1	234.0	65.1	50.7	576.9	570.3	606.2	558.8	207.0	126.6	47.8	38.2	35.6
233	385.5	433.1	483.0	481.9	417.5	328.9	166.3	81.5	674.7	705.0	676.9	663.1	580.1	176.9	76.5	45.5	39.7
238	384.5	422.3	427.1	388.9	332.9	199.3	122.7	57.4	570.3	548.0	507.2	453.8	369.8	214.6	88.0	59.8	52.1
243	347.3	393.8	386.7	359.2	313.6	179.4	94.9	57.7	499.7	454.5	382.4	304.2	244.6	152.5	87.8	63.8	48.4
248	342.6	386.4	380.1	353.3	323.2	187.2	99.8	49.5	600.3	614.6	629.7	527.5	265.4	136.1	82.4	60.5	46.3

Temperature measurements (°C), overcrowded experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 4 tc 1	tree 4 tc 2	tree 4 tc 3	tree 4 tc 4	tree 4 tc 5	tree 4 tc 6	tree 4 tc 7	tree 4 tc 8	tree 4 tc 9
253	355.2	390.9	385.6	361.1	333.5	232.1	100.3	48.5	584.6	593.9	593.9	490.2	240.1	122.3	73.9	53.7	46.9
258	366.0	398.5	405.4	379.6	345.2	250.7	119.7	61.3	542.2	530.3	483.0	395.8	254.5	130.6	73.8	55.0	47.1
263	362.0	421.6	413.0	372.2	340.4	269.0	94.5	46.5	497.4	467.7	394.0	284.9	213.7	113.4	61.8	52.8	42.4
268	388.4	424.8	417.9	385.1	339.0	228.3	115.8	80.3	505.6	459.9	361.0	284.8	197.7	120.9	63.3	44.8	41.4
273	384.2	434.3	410.1	395.4	326.3	237.9	126.3	52.9	550.3	624.2	424.9	316.9	216.4	115.0	58.4	44.1	42.8
278	395.8	443.0	415.7	394.4	334.2	237.4	83.6	56.9	557.6	550.3	459.7	341.8	246.8	134.4	58.0	47.4	50.0
283	397.7	433.3	417.5	399.6	344.4	272.8	65.3	55.3	555.2	541.8	408.0	325.5	250.1	132.5	57.8	48.1	42.8
288	376.1	416.5	406.2	385.9	325.1	191.4	104.9	57.8	571.0	548.9	447.9	343.8	234.5	141.8	63.4	50.5	38.3
293	371.6	417.2	404.9	379.9	348.0	234.5	115.6	59.5	553.6	507.2	387.5	326.3	242.9	128.8	77.6	53.7	43.1
298	377.7	426.9	408.5	384.4	343.8	204.2	107.4	66.9	579.2	528.5	404.9	312.5	187.4	125.6	73.1	59.5	49.6
303	382.4	435.4	418.2	399.0	352.2	211.1	112.4	72.2	575.3	541.0	407.8	316.5	232.7	137.7	81.9	65.2	50.2
308	367.5	418.6	389.2	377.5	321.1	170.1	94.6	60.6	582.2	551.3	407.6	293.5	211.1	122.3	79.9	68.3	51.6
313	380.1	431.8	399.2	381.8	349.6	223.3	106.2	67.6	560.7	500.7	397.4	320.2	237.6	140.7	82.0	68.6	50.6
318	384.5	461.5	417.5	401.8	373.7	301.7	112.7	65.9	533.0	494.2	404.8	329.0	205.4	121.6	74.9	59.9	50.0
323	461.7	516.7	492.4	478.5	428.9	348.0	150.4	90.1	603.4	646.3	550.5	380.7	267.7	114.5	74.3	61.1	41.3
328	412.8	473.2	470.7	441.9	378.2	291.5	164.5	77.4	629.0	625.8	604.1	524.0	319.6	164.1	76.1	60.2	49.8
333	417.2	488.1	480.9	443.2	399.9	330.6	181.9	86.4	603.3	611.4	534.9	408.6	288.2	181.7	88.8	60.6	44.7
338	371.9	461.7	476.3	435.2	389.8	309.8	149.1	71.2	597.0	596.9	525.9	411.3	285.7	164.6	100.7	65.8	50.3
343	413.9	462.4	463.4	436.6	370.5	300.7	145.0	58.2	573.5	550.2	465.3	364.0	286.9	154.0	83.4	59.3	55.4
348	408.0	474.4	451.1	430.5	381.4	269.7	156.0	80.7	560.8	532.8	446.4	344.5	249.1	135.2	71.7	58.3	47.6
353	433.5	495.8	468.1	428.6	385.5	314.9	166.6	86.9	628.2	648.2	674.5	619.3	289.8	138.7	72.9	55.8	47.1
358	465.5	516.7	495.0	454.1	385.4	289.4	113.9	64.5	662.4	668.4	688.5	632.4	446.7	180.5	87.7	65.0	61.0
363	424.1	497.2	490.0	452.4	381.1	260.8	118.6	61.7	659.8	666.3	680.7	698.1	451.7	218.5	104.7	77.0	61.2
368	422.8	480.2	466.8	438.3	381.3	263.4	146.6	80.0	652.0	652.5	663.2	645.3	535.2	207.6	118.2	89.7	64.8
373	430.4	478.1	456.0	437.6	384.0	279.6	121.1	56.5	651.5	654.2	651.6	651.2	340.0	198.1	140.3	100.5	78.4
378	440.1	496.5	465.0	416.6	353.0	247.1	128.3	61.1	658.1	667.9	665.1	673.6	306.7	211.6	135.3	86.4	89.3
383	452.5	496.0	474.9	433.9	382.3	234.9	115.4	74.9	679.1	682.1	693.5	675.2	366.9	206.6	141.3	96.2	69.9
388	437.6	494.1	464.1	445.9	377.3	233.0	124.3	69.9	737.0	732.0	743.0	783.0	440.5	227.2	155.7	134.3	154.9
393	439.5	496.7	487.6	464.4	400.7	309.3	154.5	59.2	700.0	697.2	701.0	707.0	707.0	304.7	153.5	138.3	183.5
398	481.1	540.4	511.1	464.0	436.3	336.0	163.5	93.2	731.0	730.0	732.0	760.0	433.2	281.5	186.9	139.4	282.1
403	475.1	493.4	453.9	436.3	400.2	286.0	138.6	60.8	774.0	767.0	768.0	827.0	512.6	295.4	204.8	186.7	236.3
408	481.7	490.1	447.3	423.9	370.9	221.0	122.7	54.3	764.0	752.0	747.0	772.0	792.0	471.3	220.1	193.8	236.5
413	489.6	489.5	440.3	418.6	366.3	267.5	84.9	55.2	725.0	725.0	722.0	740.0	789.0	591.1	266.0	193.9	239.5
418	496.7	539.0	492.5	460.3	406.7	271.2	101.5	58.8	722.0	718.0	711.0	744.0	770.0	593.1	326.1	216.8	254.1
423	509.5	569.8	521.6	481.9	437.1	298.1	174.7	87.3	731.0	737.0	737.0	759.0	799.0	706.0	445.7	252.5	382.6
428	492.4	592.4	577.6	528.1	482.6	410.8	232.2	140.0	731.0	759.0	744.0	752.0	772.0	830.0	553.6	449.3	604.3
433	528.1	587.7	557.4	522.2	472.6	392.3	221.4	117.4	763.0	757.0	742.0	785.0	812.0	698.7	573.2	443.0	720.0
438	551.6	560.4	532.4	518.8	490.7	427.3	235.0	154.0	713.0	699.6	706.0	706.0	711.0	715.0	633.2	619.7	741.0
443	542.9	602.6	543.6	506.8	484.3	450.3	314.3	168.1	716.0	723.0	693.8	692.3	704.0	697.7	728.0	694.4	824.0
448	544.3	558.5	535.4	509.3	490.0	436.4	320.8	195.0	738.0	724.0	730.0	728.0	722.0	688.5	714.0	711.0	798.0
453	554.2	560.1	524.2	507.3	481.2	433.0	289.9	186.7	759.0	739.0	754.0	753.0	733.0	704.0	736.0	740.0	806.0
458	533.3	538.9	518.5	497.2	478.3	443.7	323.8	208.8	746.0	734.0	746.0	755.0	728.0	695.0	720.0	726.0	785.0
463	526.4	545.5	531.6	515.9	500.0	472.6	384.4	251.7	707.0	685.3	710.0	721.0	700.0	647.5	657.5	673.8	679.3
468	500.5	541.6	551.7	539.1	511.4	479.6	419.8	298.1	701.0	687.4	695.8	721.0	687.6	633.8	652.0	688.5	711.0
473	507.2	560.6	563.7	546.8	516.7	461.6	279.6	235.2	667.0	663.2	670.3	698.5	664.2	598.0	634.9	676.0	705.0
478	512.3	564.3	583.8	572.4	540.1	496.6	357.3	267.2	653.0	622.9	659.3	675.4	650.8	569.4	599.9	629.1	638.2
483	533.5	580.7	599.4	582.6	553.7	518.0	420.1	334.3	667.6	631.9	667.3	694.0	668.4	595.7	617.0	652.7	655.6
488	554.3	614.2	605.8	591.4	559.3	513.0	376.0	284.4	616.8	620.2	625.2	645.4	629.9	576.8	581.1	579.1	593.7
493	531.0	574.7	580.1	564.2	528.3	370.4	233.8	153.0	586.2	599.9	593.1	618.3	601.5	557.6	561.2	552.3	575.4
498	520.5	570.8	583.3	566.6	533.1	473.1	312.4	186.6	583.0	603.2	593.6	629.5	605.8	553.1	559.9	546.7	595.9
503	543.4	599.0	623.6	614.3	579.4	523.6	425.7	296.6	598.7	609.4	608.3	638.0	617.7	565.1	576.9	588.3	589.5
508	538.7	591.6	581.6	575.8	547.4	503.7	414.2	278.4	641.6	678.8	648.3	670.1	650.7	610.5	615.6	654.6	645.1
513	556.8	601.9	611.5	602.3	574.9	532.0	427.2	288.1	636.7	637.4	634.0	665.8	645.1	628.2	638.1	629.3	648.0
518	548.7	602.3	605.9	580.2	544.8	437.2	332.2	291.2	698.4	685.5	667.3	701.0	684.5	675.7	682.1	693.7	698.7
523	514.9	557.2	572.7	562.0	523.5	459.7	316.9	247.7	722.0	706.0	711.0	719.0	704.0	700.0	711.0	732.0	712.0
528	516.0	544.2	555.9	541.5	506.0	364.8	188.5	181.8	713.0	690.8	710.0	714.0	717.0	711.0	707.0	725.0	712.0
533	532.3	592.0	639.3	651.0	627.5	562.0	382.4	286.3	718.0	699.9	722.0	710.0	730.0	717.0	715.0	711.0	713.0
538	583.7	603.3	609.8	596.4	592.6	600.1	655.4	645.2	710.0	696.1	718.0	724.0	725.0	701.0	705.0	680.6	700.0
543	609.5	641.9	644.9	630.7	626.4	599.6	616.8	600.6	703.0	705.0	717.0	733.0	712.0	719.0	705.0	683.4	736.0
548	619.9	660.1	681.0	713.0	740.0	792.0	755.0	653.4	699.7	694.8	712.0	731.0	698.7	711.0	702.0	692.9	720.0
553	673.7	704.0	712.0	727.0	686.1	697.6	837.0	602.9	703.0	696.3	714.0	717.0	682.3	697.7	703.0	691.7	713.0
558	799.0	807.0	800.0	759.0	791.0	829.0	596.9	771.0	708.0	766.0	714.0	716.0	684.1	695.6	705.0	708.0	711.0
563	774.0	793.0	784.0	762.0	785.0	772.0	621.7	756.0	717.0	798.0	710.0	729.0	692.4	712.0	712.0	762.0	719.0

Temperature measurements (°C), overcrowded experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 4 tc 1	tree 4 tc 2	tree 4 tc 3	tree 4 tc 4	tree 4 tc 5	tree 4 tc 6	tree 4 tc 7	tree 4 tc 8	tree 4 tc 9
568	862.0	859.0	839.0	857.0	843.0	866.0	477.7	547.7	719.0	801.0	723.0	727.0	705.0	709.0	720.0	731.0	715.0
573	825.0	833.0	826.0	790.0	801.0	832.0	650.5	721.0	718.0	748.0	733.0	748.0	701.0	701.0	722.0	712.0	714.0
578	872.0	887.0	871.0	857.0	869.0	892.0	955.0	950.0	714.0	725.0	733.0	731.0	703.0	698.5	725.0	707.0	710.0
583	899.0	902.0	890.0	876.0	874.0	877.0	622.7	798.0	722.0	749.0	734.0	708.0	717.0	714.0	729.0	715.0	712.0
588	906.0	876.0	863.0	892.0	905.0	882.0	836.0	817.0	718.0	714.0	712.0	687.9	716.0	699.4	732.0	691.5	716.0
593	829.0	844.0	824.0	864.0	864.0	860.0	730.0	783.0	628.9	592.4	624.3	598.8	636.0	607.0	618.4	602.0	620.2
598	805.0	815.0	783.0	829.0	830.0	822.0	782.0	854.0	583.3	593.0	567.3	550.7	587.7	553.2	578.7	597.9	620.0
603	804.0	803.0	780.0	818.0	817.0	806.0	738.0	812.0	600.4	581.9	572.6	510.9	570.1	543.2	573.9	564.8	645.1
608	813.0	819.0	799.0	836.0	838.0	830.0	776.0	821.0	531.5	497.5	496.7	483.0	506.4	492.8	505.1	505.8	537.0
613	840.0	856.0	832.0	878.0	882.0	874.0	816.0	858.0	551.7	549.7	535.5	494.7	533.0	528.5	535.3	539.2	602.1
618	824.0	858.0	827.0	882.0	878.0	874.0	829.0	853.0	733.0	714.0	723.0	725.0	732.0	729.0	752.0	724.0	762.0
623	835.0	865.0	844.0	903.0	905.0	893.0	865.0	892.0	770.0	755.0	747.0	752.0	753.0	747.0	766.0	742.0	760.0
628	834.0	877.0	853.0	928.0	941.0	905.0	903.0	917.0	786.0	761.0	761.0	763.0	760.0	760.0	773.0	745.0	743.0
633	823.0	851.0	824.0	914.0	938.0	884.0	903.0	901.0	765.0	752.0	744.0	749.0	747.0	748.0	760.0	732.0	737.0
638	822.0	845.0	827.0	905.0	936.0	872.0	903.0	899.0	654.8	657.4	644.1	646.5	643.8	654.2	658.3	626.7	645.3
643	792.0	811.0	795.0	858.0	876.0	826.0	864.0	857.0	609.2	613.8	601.6	594.5	593.7	609.8	606.7	592.6	612.0
648	768.0	782.0	757.0	826.0	839.0	794.0	833.0	823.0	658.6	649.2	643.0	644.0	634.4	641.0	660.4	643.7	667.8
653	820.0	800.0	804.0	837.0	833.0	818.0	842.0	830.0	704.0	698.9	687.1	686.6	682.7	684.6	705.0	670.9	702.0
658	761.0	770.0	766.0	803.0	808.0	789.0	819.0	807.0	622.8	624.5	616.4	609.5	607.7	615.9	621.2	600.6	624.0
663	802.0	788.0	806.0	823.0	804.0	809.0	828.0	817.0	576.3	576.6	567.2	563.9	561.7	570.6	573.9	567.5	586.0
668	792.0	791.0	818.0	822.0	804.0	817.0	819.0	811.0	609.9	594.4	586.4	586.1	582.4	587.8	604.0	609.8	636.2
673	756.0	768.0	782.0	785.0	783.0	790.0	789.0	779.0	739.0	706.0	693.5	697.1	694.2	689.6	717.0	712.0	732.0
678	696.9	720.0	722.0	731.0	744.0	739.0	740.0	732.0	790.0	756.0	737.0	742.0	735.0	734.0	761.0	748.0	779.0
683	678.9	698.3	697.6	713.0	718.0	714.0	718.0	710.0	744.0	753.0	734.0	750.0	742.0	745.0	759.0	714.0	742.0
688	683.0	696.4	695.5	707.0	711.0	707.0	714.0	708.0	822.0	799.0	775.0	787.0	765.0	771.0	791.0	794.0	826.0
693	664.7	680.8	676.7	690.7	699.6	688.0	702.0	696.6	801.0	797.0	772.0	786.0	761.0	774.0	792.0	784.0	815.0
698	680.6	686.2	684.7	690.6	689.7	689.7	697.2	691.5	806.0	796.0	784.0	803.0	766.0	784.0	801.0	798.0	810.0
703	674.2	683.3	683.3	694.1	698.8	691.1	705.0	699.1	809.0	806.0	796.0	810.0	767.0	789.0	800.0	805.0	826.0
708	690.0	696.9	695.2	699.0	702.0	702.0	709.0	703.0	798.0	802.0	801.0	811.0	764.0	787.0	795.0	804.0	815.0
713	724.0	722.0	721.0	714.0	714.0	723.0	721.0	716.0	801.0	799.0	809.0	816.0	766.0	787.0	802.0	820.0	826.0
718	731.0	734.0	732.0	722.0	729.0	736.0	725.0	725.0	811.0	807.0	816.0	819.0	771.0	787.0	804.0	823.0	829.0
723	725.0	730.0	724.0	718.0	724.0	731.0	719.0	719.0	821.0	803.0	811.0	818.0	772.0	789.0	801.0	830.0	832.0
728	747.0	746.0	747.0	733.0	727.0	749.0	736.0	733.0	845.0	819.0	825.0	833.0	782.0	799.0	816.0	875.0	868.0
733	807.0	795.0	800.0	771.0	761.0	795.0	780.0	778.0	833.0	819.0	830.0	835.0	789.0	803.0	814.0	861.0	860.0
738	820.0	822.0	822.0	789.0	794.0	825.0	804.0	796.0	829.0	807.0	813.0	811.0	775.0	788.0	802.0	860.0	855.0
743	814.0	821.0	818.0	786.0	809.0	829.0	801.0	795.0	815.0	799.0	805.0	804.0	768.0	779.0	794.0	837.0	846.0
748	808.0	817.0	811.0	779.0	803.0	822.0	792.0	786.0	837.0	822.0	830.0	831.0	788.0	795.0	806.0	828.0	831.0
753	779.0	790.0	787.0	757.0	782.0	799.0	770.0	764.0	845.0	827.0	834.0	838.0	796.0	803.0	812.0	838.0	831.0
758	770.0	781.0	773.0	745.0	763.0	785.0	754.0	747.0	823.0	817.0	814.0	830.0	795.0	790.0	793.0	813.0	833.0
763	766.0	776.0	766.0	735.0	756.0	777.0	743.0	737.0	825.0	803.0	807.0	825.0	781.0	776.0	781.0	810.0	826.0
768	759.0	769.0	759.0	736.0	750.0	770.0	741.0	734.0	800.0	780.0	782.0	796.0	755.0	752.0	760.0	798.0	777.0
773	746.0	760.0	749.0	724.0	743.0	762.0	730.0	723.0	779.0	764.0	762.0	776.0	738.0	734.0	745.0	794.0	758.0
778	789.0	795.0	786.0	754.0	757.0	789.0	750.0	747.0	764.0	750.0	752.0	759.0	725.0	726.0	740.0	792.0	743.0
783	775.0	787.0	775.0	753.0	767.0	785.0	750.0	746.0	759.0	742.0	743.0	755.0	720.0	723.0	737.0	790.0	719.0
788	783.0	790.0	780.0	767.0	773.0	789.0	760.0	755.0	752.0	738.0	744.0	746.0	713.0	718.0	734.0	785.0	724.0
793	775.0	780.0	764.0	759.0	763.0	780.0	746.0	742.0	687.6	748.0	746.0	743.0	730.0	731.0	748.0	807.0	716.0
798	755.0	758.0	738.0	743.0	741.0	759.0	724.0	719.0	689.8	774.0	760.0	756.0	734.0	734.0	753.0	802.0	726.0
803	739.0	743.0	720.0	732.0	725.0	743.0	710.0	703.0	745.0	765.0	760.0	758.0	725.0	729.0	750.0	798.0	736.0
808	733.0	734.0	711.0	726.0	716.0	732.0	702.0	692.4	707.0	786.0	760.0	766.0	737.0	737.0	757.0	801.0	735.0
813	707.0	714.0	691.5	702.0	700.0	713.0	685.6	675.9	721.0	778.0	758.0	768.0	730.0	733.0	754.0	794.0	734.0
818	713.0	715.0	689.9	714.0	693.3	711.0	681.9	669.8	777.0	768.0	764.0	771.0	727.0	731.0	757.0	803.0	742.0
823	712.0	712.0	686.1	710.0	688.4	706.0	678.4	665.7	764.0	765.0	762.0	768.0	723.0	728.0	753.0	797.0	736.0
828	704.0	703.0	678.2	699.6	683.1	697.9	672.2	661.3	742.0	763.0	764.0	769.0	725.0	729.0	756.0	803.0	736.0
833	705.0	698.5	676.8	688.5	678.7	692.1	666.2	659.0	749.0	769.0	782.0	779.0	735.0	738.0	768.0	823.0	749.0
838	705.0	698.1	677.2	684.1	676.1	690.3	662.4	657.7	718.0	752.0	766.0	755.0	726.0	731.0	751.0	782.0	735.0
843	701.0	695.4	673.6	682.4	673.2	687.3	659.3	654.6	670.1	710.0	719.0	708.0	690.9	696.1	711.0	728.0	697.4
848	701.0	694.5	673.9	695.8	672.5	688.6	665.3	655.2	656.7	689.3	692.3	686.6	668.4	674.1	692.0	709.0	676.5
853	704.0	697.3	674.8	705.0	674.2	693.2	669.9	655.5	654.0	682.9	680.8	680.6	657.9	663.4	686.8	714.0	667.1
858	707.0	699.2	675.4	715.0	673.2	695.2	673.7	654.2	648.7	679.1	677.2	676.5	655.0	660.3	681.2	699.9	661.1
863	702.0	694.0	674.5	699.0	671.2	691.7	671.7	655.3	646.5	676.5	673.8	672.6	652.0	657.7	677.4	693.7	657.1
868	712.0	702.0	679.8	716.0	674.7	697.9	678.2	658.3	633.8	664.1	660.6	660.3	640.6	646.2	666.1	685.0	646.4
873	730.0	718.0	690.9	745.0	685.4	711.0	692.2	667.0	656.2	685.0	686.3	683.7	654.9	660.2	685.9	723.0	669.3
878	737.0	725.0	693.2	751.0	689.1	719.0	698.9	669.1	652.1	690.5	697.4	689.5	664.1	668.9	691.9	733.0	675.6

Temperature measurements (°C), overcrowded experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 4 tc 1	tree 4 tc 2	tree 4 tc 3	tree 4 tc 4	tree 4 tc 5	tree 4 tc 6	tree 4 tc 7	tree 4 tc 8	tree 4 tc 9
883	755.0	736.0	704.0	760.0	696.1	729.0	707.0	674.6	643.9	687.1	698.4	685.6	664.8	670.6	687.4	717.0	674.2
888	741.0	729.0	697.5	747.0	695.3	727.0	706.0	670.7	632.7	678.0	689.8	677.9	655.2	661.4	681.0	723.0	669.1
893	737.0	723.0	694.5	736.0	689.7	723.0	703.0	668.5	625.0	669.5	683.3	669.0	650.0	657.1	671.9	706.0	662.8
898	722.0	712.0	689.1	716.0	685.1	714.0	695.2	666.3	635.4	675.2	687.6	675.6	654.2	661.7	679.8	714.0	668.7
903	711.0	702.0	683.5	703.0	678.4	704.0	688.5	661.8	657.9	686.4	694.5	683.9	660.5	667.4	688.7	729.0	678.0
908	714.0	702.0	683.8	707.0	677.2	706.0	688.7	661.3	674.8	699.0	706.0	695.9	670.1	677.0	700.0	741.0	688.4
913	728.0	717.0	702.0	703.0	688.5	715.0	687.5	672.4	684.4	705.0	712.0	701.0	673.9	681.0	704.0	748.0	693.1
918	733.0	720.0	703.0	692.8	690.3	718.0	682.8	673.3	687.7	707.0	711.0	702.0	677.4	685.1	708.0	745.0	695.0
923	731.0	720.0	703.0	686.0	690.9	717.0	678.9	673.9	696.2	714.0	720.0	712.0	685.2	692.8	715.0	753.0	703.0
928	736.0	725.0	705.0	684.8	694.5	721.0	679.3	677.1	722.0	725.0	729.0	724.0	693.0	697.7	724.0	763.0	712.0
933	743.0	731.0	709.0	688.6	698.9	726.0	682.2	680.8	735.0	735.0	739.0	735.0	702.0	705.0	731.0	769.0	720.0
938	744.0	732.0	708.0	687.1	699.0	725.0	681.9	679.7	712.0	724.0	728.0	719.0	694.5	699.1	720.0	745.0	712.0
943	738.0	728.0	703.0	682.0	695.5	721.0	677.8	674.4	693.9	709.0	712.0	704.0	681.7	686.0	708.0	737.0	699.3
948	739.0	728.0	707.0	681.3	695.5	722.0	678.6	676.0	688.7	703.0	705.0	697.9	675.9	680.2	702.0	730.0	692.9
953	741.0	729.0	711.0	680.3	695.8	723.0	677.7	678.5	682.5	698.2	700.0	692.8	671.0	675.2	696.7	722.0	687.3
958	741.0	730.0	715.0	678.2	699.3	725.0	681.2	681.4	694.4	703.0	704.0	698.7	672.7	676.7	702.0	737.0	691.2
963	744.0	733.0	718.0	680.1	707.0	727.0	682.4	684.7	687.1	696.1	698.7	690.9	668.8	673.1	694.7	720.0	685.5
968	744.0	733.0	718.0	679.1	706.0	728.0	683.4	685.8	675.6	684.4	686.1	678.7	659.2	662.9	682.4	703.0	673.6
973	744.0	734.0	720.0	679.8	709.0	729.0	686.6	688.7	661.3	672.7	674.0	667.6	649.1	652.9	671.8	696.6	664.0
978	742.0	733.0	718.0	681.7	707.0	729.0	687.1	689.5	681.2	692.8	693.5	688.9	662.3	665.0	690.1	729.0	680.7
983	741.0	730.0	716.0	677.1	705.0	725.0	685.7	685.7	679.1	688.9	690.4	683.7	661.5	665.1	686.0	711.0	676.8
988	740.0	728.0	713.0	682.9	703.0	725.0	686.1	686.9	673.3	681.6	682.3	675.6	656.1	659.9	679.8	701.0	670.8
993	734.0	722.0	707.0	674.8	697.2	719.0	682.6	679.7	674.4	678.5	681.7	674.7	655.1	657.2	676.3	701.0	669.3
998	730.0	719.0	703.0	675.2	689.9	716.0	680.3	679.7	667.0	672.6	675.8	669.5	650.3	651.8	670.1	695.3	663.5
1003	728.0	717.0	707.0	674.9	691.5	715.0	681.3	682.2	692.1	688.0	690.6	684.0	661.5	660.3	681.5	713.0	673.3
1008	730.0	722.0	711.0	686.1	699.1	719.0	686.9	686.9	677.4	667.6	675.4	667.9	653.9	652.6	664.3	683.9	661.6
1013	730.0	719.0	711.0	675.9	695.3	717.0	685.9	679.6	673.0	654.7	664.2	658.5	645.5	644.4	652.3	667.7	651.8
1018	728.0	715.0	708.0	667.1	689.6	712.0	680.0	672.1	651.7	641.4	651.2	646.2	634.6	634.0	640.6	654.4	638.9
1023	723.0	712.0	704.0	668.6	688.1	711.0	679.9	676.1	644.0	631.5	641.2	637.1	625.0	625.0	631.1	644.8	629.2
1028	725.0	712.0	698.0	668.6	685.2	710.0	678.8	673.8	628.6	621.6	630.9	627.3	615.5	615.8	621.7	635.1	619.8
1033	726.0	714.0	700.0	669.0	688.0	711.0	678.1	670.1	629.5	617.1	626.7	624.1	611.2	611.2	617.6	631.9	615.3
1038	724.0	710.0	698.4	663.9	684.6	710.0	677.0	668.9	634.4	616.3	625.8	624.1	610.3	609.7	616.7	630.5	613.9
1043	724.0	710.0	702.0	666.4	685.3	711.0	677.8	671.3	648.2	620.7	630.0	630.1	614.0	612.9	620.1	634.7	619.0
1048	720.0	710.0	699.3	672.9	687.5	711.0	681.0	674.0	641.1	620.3	628.9	629.6	613.5	612.2	619.4	632.2	617.5
1053	722.0	711.0	702.0	669.8	688.5	712.0	680.6	673.8	626.8	618.4	628.6	624.8	612.3	611.0	619.7	633.0	622.4
1058	717.0	705.0	694.9	663.2	682.7	707.0	675.4	666.3	617.9	614.8	626.3	619.8	607.4	606.7	616.4	633.9	621.1
1063	718.0	705.0	696.3	660.8	680.6	703.0	673.0	663.4	614.4	612.6	624.7	617.1	603.4	603.7	614.4	634.5	621.2
1068	714.0	703.0	690.4	656.1	679.1	703.0	671.0	663.4	612.7	611.1	624.1	615.9	600.5	601.7	613.5	634.9	621.8
1073	712.0	701.0	686.9	652.3	674.7	700.0	666.0	657.4	611.4	609.9	623.5	614.7	598.6	600.3	612.5	634.8	622.2
1078	709.0	697.5	686.1	650.1	673.1	697.8	665.5	655.7	611.0	609.2	623.2	614.2	597.0	599.4	612.3	635.7	622.8
1083	705.0	693.7	686.5	646.2	668.6	694.1	661.7	652.0	611.6	609.4	623.7	614.5	596.3	599.1	612.8	637.8	624.4
1088	704.0	690.8	677.0	642.5	662.4	691.1	656.3	646.4	613.0	610.8	625.4	615.9	596.0	599.7	614.5	641.2	627.4
1093	706.0	692.2	679.2	649.2	663.0	693.1	658.5	648.4	614.1	612.4	627.3	617.3	596.5	601.3	616.9	644.1	631.4
1098	710.0	694.1	684.7	658.4	666.8	696.3	661.8	650.5	614.4	612.7	628.2	617.1	597.1	602.5	616.8	644.1	632.5
1103	710.0	693.8	681.4	657.0	665.9	697.1	662.9	650.5	613.4	611.5	626.6	614.9	596.5	601.7	615.2	641.2	630.9
1108	709.0	693.7	678.0	657.8	665.5	697.3	663.4	650.9	611.9	609.8	624.2	612.8	595.0	600.3	613.5	638.8	628.3
1113	710.0	694.8	678.9	660.0	667.1	698.0	665.0	651.5	611.7	609.7	623.5	612.5	594.6	600.0	613.5	639.1	628.6
1118	711.0	696.6	680.0	662.3	667.3	699.5	667.1	652.7	612.4	611.1	624.8	613.7	595.2	601.2	614.5	641.5	632.5
1123	715.0	699.7	686.0	661.5	671.3	702.0	669.2	656.4	613.1	612.3	625.8	614.2	595.9	602.4	614.9	642.5	633.8
1128	726.0	713.0	694.4	680.5	680.4	713.0	681.4	671.4	614.3	613.6	627.5	615.5	596.6	603.7	616.2	644.5	635.8
1133	734.0	723.0	704.0	687.5	689.0	722.0	691.6	677.1	615.5	614.9	627.7	615.6	596.7	604.4	616.5	644.2	637.6
1138	741.0	730.0	712.0	696.1	701.0	730.0	702.0	687.7	617.6	616.8	629.5	617.1	599.1	605.9	618.2	645.3	637.2
1143	748.0	737.0	720.0	703.0	705.0	740.0	708.0	693.8	620.0	618.5	631.1	618.5	601.3	607.8	620.0	646.1	638.3
1148	742.0	733.0	718.0	695.5	704.0	732.0	705.0	689.1	623.0	620.6	633.1	620.4	603.1	609.6	621.9	647.1	639.8
1153	741.0	732.0	717.0	691.6	701.0	730.0	701.0	687.0	626.0	622.8	634.8	621.8	605.2	612.0	623.7	647.7	641.8
1158	747.0	735.0	722.0	693.9	703.0	736.0	709.0	691.8	628.2	624.1	635.2	622.5	606.6	613.3	624.6	647.9	642.4
1163	754.0	745.0	726.0	707.0	707.0	741.0	710.0	703.0	629.9	625.4	636.1	623.6	608.0	614.7	625.8	648.4	643.2
1168	761.0	752.0	731.0	717.0	715.0	747.0	716.0	710.0	630.6	625.9	637.3	624.9	609.3	615.5	626.9	649.6	644.3
1173	758.0	750.0	733.0	711.0	717.0	746.0	718.0	708.0	633.0	627.3	638.5	626.0	610.7	617.1	627.7	649.7	647.6
1178	757.0	752.0	732.0	712.0	717.0	747.0	717.0	709.0	634.9	628.6	639.5	627.2	611.9	618.6	628.9	650.9	649.0
1183	758.0	755.0	732.0	719.0	718.0	748.0	720.0	714.0	636.9	630.2	640.8	628.8	613.6	620.2	630.4	652.2	651.0
1188	759.0	758.0	735.0	726.0	723.0	749.0	722.0	720.0	638.0	631.4	641.8	630.1	614.9	621.7	631.6	653.5	652.6
1193	759.0	759.0	739.0	724.0	725.0	747.0	725.0	725.0	641.5	633.8	643.5	631.9	616.5	624.1	633.5	654.5	656.1

Temperature measurements (°C), overcrowded experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6	tree 3 tc 7	tree 3 tc 8	tree 4 tc 1	tree 4 tc 2	tree 4 tc 3	tree 4 tc 4	tree 4 tc 5	tree 4 tc 6	tree 4 tc 7	tree 4 tc 8	tree 4 tc 9
1198	756.0	757.0	741.0	722.0	728.0	747.0	727.0	729.0	642.6	634.7	644.2	633.4	618.0	625.3	634.9	655.3	655.7
1203	752.0	755.0	739.0	721.0	729.0	743.0	727.0	732.0	643.1	635.3	644.5	633.8	618.7	625.6	635.5	655.7	655.3
1208	747.0	751.0	741.0	718.0	730.0	740.0	727.0	730.0	644.8	636.0	644.4	634.0	618.8	625.8	635.8	656.1	654.1
1213	738.0	744.0	733.0	712.0	725.0	730.0	719.0	722.0	646.0	637.3	645.1	635.1	619.7	626.7	637.2	656.8	654.8
1218	729.0	733.0	727.0	701.0	717.0	721.0	711.0	713.0	645.7	638.0	646.0	636.5	620.7	627.7	638.6	657.3	655.3
1223	721.0	725.0	713.0	691.0	706.0	712.0	699.4	703.0	645.3	638.3	645.3	636.3	620.8	627.8	638.3	657.1	654.3
1228	697.2	698.5	695.3	668.0	686.0	691.8	678.3	674.5	645.1	638.1	645.1	636.6	620.7	627.9	638.4	656.5	654.0
1233	676.6	679.4	676.7	650.5	667.5	674.9	658.9	659.7	645.0	637.9	644.6	635.7	620.4	627.4	638.3	655.7	652.9
1238	662.4	666.9	661.4	638.2	653.8	662.0	644.3	647.9	643.8	637.1	643.0	634.1	619.2	626.5	637.0	654.0	650.7
1243	651.9	656.8	649.5	629.0	643.9	652.2	632.1	637.0	643.7	636.4	641.7	633.6	618.6	625.7	636.5	652.5	649.7
1248	642.0	646.3	636.3	619.5	632.2	641.3	622.5	626.6	641.3	634.1	638.8	631.1	616.3	623.6	634.9	649.0	645.8
1253	625.5	631.3	622.9	607.9	620.9	625.1	608.2	613.3	639.0	632.8	636.6	629.7	614.7	621.8	633.1	648.6	643.2
1258	613.8	618.8	608.8	594.6	606.7	613.9	593.9	598.9	636.9	631.0	634.3	627.9	612.9	620.2	631.0	645.8	640.5
1263	604.7	612.6	594.0	581.7	591.9	607.2	584.9	584.6	633.7	628.0	631.2	625.4	610.6	617.8	628.2	642.4	636.1
1268	502.5	530.2	516.4	543.1	540.3	512.3	517.0	526.3	630.5	625.7	628.3	623.0	608.3	615.2	625.7	639.6	632.3
1273	486.0	499.9	500.0	512.7	509.5	486.7	501.4	503.3	627.4	624.0	625.4	620.7	605.9	612.7	623.5	637.6	628.2
1278	476.8	476.9	472.3	492.8	503.4	467.9	489.5	487.7	625.0	622.2	622.9	618.7	603.8	610.5	621.4	635.4	624.8
1283	468.0	471.1	491.4	481.8	479.6	465.9	489.5	481.3	622.0	620.0	620.0	616.4	601.6	608.1	619.2	632.7	621.6
1288	461.8	462.2	484.3	472.0	469.4	458.9	484.2	474.2	620.2	618.6	617.6	614.7	599.8	605.9	617.1	630.9	618.7
1293	457.1	455.4	478.0	464.4	462.6	453.2	480.4	469.5	621.2	618.1	616.1	613.9	598.6	604.7	616.0	629.1	617.1
1298	450.4	448.5	470.2	459.1	456.8	444.6	477.0	464.8	622.1	617.5	614.9	613.2	597.7	603.9	615.4	627.8	616.2
1303	437.3	434.6	450.2	450.6	447.6	427.8	469.2	460.2	621.5	617.0	613.9	612.8	597.0	603.1	614.9	626.7	615.5
1308	439.7	434.1	465.2	447.6	448.1	432.3	469.6	460.0	620.3	616.1	612.6	611.9	595.7	602.1	613.7	625.4	613.7
1313	446.3	434.6	469.2	446.3	446.9	434.0	468.8	458.6	620.0	615.6	611.6	611.4	595.2	601.4	612.9	624.4	612.7
1318	431.9	428.6	449.1	442.3	442.9	422.8	465.5	455.5	619.9	615.4	610.7	611.0	594.9	601.1	612.5	623.5	612.0
1323	435.5	428.4	459.2	442.2	442.7	427.0	465.7	455.2	618.3	614.2	609.5	610.1	594.3	600.1	611.7	622.4	610.5
1328	438.2	428.0	469.8	441.9	441.9	427.7	465.4	454.8	617.0	613.0	608.1	609.1	593.2	598.9	610.6	620.8	608.8
1333	434.9	429.0	457.7	442.2	442.7	425.8	467.6	458.0	615.7	612.1	607.0	608.1	592.2	597.7	609.5	619.6	607.5
1338									614.8	611.5	605.9	607.5	591.6	597.0	608.8	618.7	606.0
1343									613.0	610.3	604.6	606.6	590.6	595.9	607.8	617.5	604.2
1348									611.2	609.0	603.3	605.5	589.5	594.6	606.5	616.0	602.6
1353									612.0	608.1	601.8	604.3	588.1	593.4	605.1	614.2	600.6
1358									612.2	607.3	600.6	603.6	587.2	592.6	604.1	612.5	599.0
1363									610.6	606.0	599.3	602.8	586.4	591.7	603.0	611.2	597.8
1368									609.4	604.9	598.2	602.2	585.5	590.8	602.1	610.0	596.5
1373									607.9	603.8	596.9	601.2	584.6	589.8	601.1	608.7	594.8
1378									595.8	597.0	588.6	594.0	578.5	583.5	594.0	602.3	574.4
1383									590.3	593.4	584.3	590.1	574.9	579.2	590.3	598.7	567.9
1388									588.8	591.7	581.2	587.8	572.8	576.4	588.4	596.0	563.8
1393									586.9	589.7	578.5	585.7	571.0	573.7	586.9	593.4	560.9
1398									582.4	586.7	575.9	583.4	569.0	570.8	584.8	590.8	558.9
1403									577.9	583.6	573.2	580.7	566.4	567.7	582.0	588.0	557.2

Temperature measurements (°C), overcrowded experiment

time (s)	tree 5 tc 1	tree 5 tc 2	tree 5 tc 3	tree 5 tc 4	tree 5 tc 5	tree 5 tc 6	tree 5 tc 7	tree 5 tc 8	tree 5 tc 9
-62	26.4	26.0	26.0	25.9	25.7	25.6	25.4	25.3	25.2
-57	26.5	26.0	25.9	25.6	25.5	25.4	25.3	25.3	25.2
-52	26.5	25.9	25.8	25.7	25.6	25.5	25.3	25.3	25.2
-47	26.8	26.1	25.9	25.7	25.5	25.5	25.3	25.3	25.1
-42	26.2	26.3	26.0	25.9	25.6	25.4	25.3	25.3	25.2
-37	26.5	26.0	25.8	25.6	25.5	25.4	25.3	25.3	25.2
-32	26.5	25.9	25.8	25.6	25.4	25.3	25.3	25.3	25.2
-27	26.6	26.0	25.9	25.6	25.3	25.3	25.3	25.3	25.3
-22	26.7	26.2	26.0	25.8	25.4	25.3	25.3	25.4	25.3
-17	26.6	26.2	26.0	25.7	25.5	25.4	25.4	25.3	25.3
-12	26.7	26.1	25.9	25.7	25.6	25.4	25.4	25.4	25.3
-7	26.9	26.2	26.1	25.9	25.6	25.5	25.5	25.6	25.4
-2	26.8	26.2	26.1	25.9	25.7	25.6	25.5	25.5	25.4
3	26.7	26.2	26.0	25.7	25.6	25.5	25.5	25.5	25.3
8	26.9	26.1	25.9	25.7	25.5	25.5	25.5	25.5	25.4
13	27.2	26.1	25.7	25.7	25.5	25.4	25.5	25.5	25.3
18	27.0	26.2	26.0	25.9	25.6	25.6	25.6	25.4	25.3
23	26.8	26.3	26.2	26.0	25.6	25.4	25.5	25.4	25.3
28	26.8	26.3	26.1	25.9	25.6	25.5	25.5	25.4	25.4
33	26.6	26.2	26.0	25.9	25.7	25.6	25.6	25.5	25.4
38	26.5	26.4	26.3	25.8	25.5	25.4	25.5	25.5	25.4
43	26.6	26.0	25.9	25.7	25.6	25.6	25.6	25.5	25.4
48	26.6	26.1	25.9	25.7	25.6	25.5	25.5	25.6	25.5
53	26.8	26.0	25.8	25.7	25.7	25.6	25.6	25.6	25.5
58	26.9	26.2	26.3	26.0	25.9	25.8	25.8	25.7	25.4
63	26.6	26.2	26.4	26.1	26.1	25.9	25.8	25.7	25.3
68	26.5	26.4	26.4	26.0	25.9	25.6	25.6	25.6	25.3
73	26.4	26.2	26.1	25.9	25.7	25.6	25.6	25.6	25.4
78	26.4	26.3	25.9	26.0	25.8	25.6	25.7	25.6	25.6
83	26.7	26.4	26.2	26.0	25.9	25.6	25.5	25.5	25.4
88	26.9	26.3	26.2	26.0	25.8	25.6	25.7	25.5	25.4
93	26.9	26.2	26.0	26.0	25.8	25.7	25.6	25.4	25.3
98	26.6	26.3	26.1	26.0	25.9	25.7	25.6	25.4	25.3
103	26.9	26.3	26.2	26.1	25.9	25.8	25.6	25.6	25.4
108	26.8	26.3	26.2	26.1	25.8	25.6	25.5	25.5	25.4
113	26.7	26.3	26.1	25.8	25.6	25.5	25.5	25.4	25.4
118	26.8	26.3	26.2	26.0	25.7	25.5	25.4	25.3	25.3
123	26.9	26.4	26.4	26.1	25.9	25.6	25.5	25.2	25.2
128	27.1	26.5	26.3	26.3	26.0	25.8	25.4	25.3	25.1
133	26.9	26.5	26.0	26.1	25.9	25.6	25.4	25.3	25.2
138	26.9	26.4	26.1	26.0	25.9	25.7	25.6	25.4	25.3
143	27.3	26.8	26.5	26.3	26.1	25.9	25.4	25.5	25.4
148	27.6	27.1	26.4	26.2	25.9	25.8	25.7	25.7	25.5
153	29.4	27.8	26.6	26.2	25.9	25.9	25.9	25.6	25.4
158	31.5	28.7	26.7	26.2	26.1	25.9	25.9	25.7	25.5
163	105.2	53.0	27.4	26.8	26.3	26.1	26.0	25.7	25.7
168	125.5	85.8	56.1	42.7	37.1	30.9	27.0	26.5	26.2
173	168.4	98.9	83.5	65.3	41.2	31.9	29.4	27.8	26.5
178	170.5	120.8	91.7	72.5	49.8	35.3	31.7	29.4	27.4
183	189.1	129.6	100.4	84.0	62.7	38.0	32.3	29.0	28.3
188	189.9	147.7	111.8	91.4	67.7	45.6	34.9	29.5	29.3
193	200.3	156.0	124.0	105.0	70.8	47.0	34.0	30.4	29.9
198	212.2	163.7	126.0	113.9	79.6	49.1	34.1	30.6	31.1
203	221.8	185.3	139.9	125.6	83.2	50.8	35.2	30.8	31.8
208	209.9	188.5	148.1	120.4	88.4	51.0	34.9	31.6	32.9
213	198.1	180.3	152.7	121.8	90.8	51.1	36.4	32.4	32.1
218	206.9	166.5	152.1	127.7	90.7	49.8	38.1	32.6	32.8
223	241.8	183.0	155.0	131.6	90.4	55.2	36.6	33.2	33.3
228	235.0	203.3	169.3	143.9	93.2	54.1	36.3	33.8	34.3
233	365.2	292.4	218.3	170.4	122.7	67.8	39.3	34.9	34.7
238	318.6	305.9	275.1	218.3	147.2	83.7	44.6	36.6	35.6
243	252.5	252.9	237.6	189.9	134.9	71.9	43.5	38.6	38.1
248	287.6	245.6	208.0	167.7	115.1	67.1	42.7	39.2	38.0

Temperature measurements (°C), overcrowded experiment

time (s)	tree 5 tc 1	tree 5 tc 2	tree 5 tc 3	tree 5 tc 4	tree 5 tc 5	tree 5 tc 6	tree 5 tc 7	tree 5 tc 8	tree 5 tc 9
253	294.7	262.5	218.1	158.0	105.1	65.4	44.2	40.2	38.9
258	246.2	237.6	216.2	148.4	102.4	59.9	45.4	41.4	39.7
263	226.2	208.8	196.3	152.1	101.3	60.4	46.3	41.4	40.0
268	239.7	209.8	185.9	155.2	99.0	63.6	47.3	43.4	41.4
273	240.9	217.4	182.5	147.7	97.2	59.9	47.7	42.0	40.4
278	256.0	220.1	177.2	148.9	106.8	57.8	49.2	43.5	41.7
283	248.6	210.4	176.8	149.0	110.1	57.9	48.9	41.3	39.3
288	248.8	208.8	187.5	155.8	107.4	61.6	52.4	43.8	40.8
293	242.7	215.5	190.5	161.4	108.2	59.7	49.6	43.6	42.2
298	250.4	216.7	191.6	161.5	110.7	68.1	49.8	45.7	40.2
303	255.6	210.3	195.0	174.8	131.3	70.4	52.6	46.6	37.7
308	251.9	215.7	190.3	168.8	115.0	77.4	57.9	48.5	37.8
313	238.9	214.6	190.4	165.9	119.0	72.1	55.9	49.6	39.2
318	241.7	207.5	184.4	158.3	105.0	69.1	56.2	47.3	41.3
323	244.8	193.0	177.8	148.0	99.4	67.9	55.5	46.2	38.9
328	370.5	223.8	176.6	145.2	103.5	71.7	56.4	45.1	40.4
333	306.4	268.8	223.6	182.0	113.9	73.1	60.2	47.3	43.6
338	283.4	260.9	221.4	185.5	128.9	80.3	57.4	50.1	46.4
343	276.2	244.2	217.3	177.7	117.7	75.2	57.9	47.7	46.4
348	264.1	234.8	206.6	162.5	119.9	71.6	57.4	46.7	42.7
353	265.9	229.7	197.6	158.5	118.6	70.7	58.2	47.2	41.5
358	349.1	262.6	197.3	160.0	116.9	72.0	60.0	49.0	43.2
363	404.2	351.8	249.8	199.8	140.7	75.0	59.4	48.5	45.0
368	496.3	454.4	345.6	258.8	162.2	80.7	62.4	54.0	48.7
373	453.4	397.9	320.3	251.2	162.0	77.1	62.0	45.2	41.3
378	389.8	341.0	300.3	216.7	138.0	79.6	56.0	47.2	40.2
383	441.6	320.2	256.9	190.5	122.7	78.1	56.3	46.2	45.0
388	455.1	419.0	324.8	261.0	169.3	86.7	60.4	49.5	52.8
393	447.9	425.7	365.6	294.1	208.8	125.2	87.2	58.4	52.2
398	417.7	368.6	321.7	255.9	183.1	118.7	76.1	56.4	45.9
403	506.9	524.9	396.9	309.7	216.4	134.7	91.3	60.6	57.6
408	535.8	532.3	420.7	342.4	237.4	153.8	110.4	61.8	62.6
413	557.9	535.3	469.2	368.4	277.4	171.5	128.3	77.8	64.6
418	539.3	551.0	448.7	375.2	258.9	191.5	140.4	84.0	74.8
423	573.6	562.3	447.2	385.9	288.5	207.2	158.6	88.7	75.2
428	575.0	589.2	521.1	465.1	365.1	250.4	172.0	85.4	61.9
433	591.6	583.4	485.4	425.8	344.9	241.9	161.8	90.9	57.2
438	614.7	574.3	498.3	409.3	328.4	245.5	146.5	91.7	61.6
443	611.8	643.1	512.3	453.0	366.6	269.3	146.2	96.1	81.7
448	590.2	571.1	493.7	439.3	384.8	307.8	172.1	104.2	92.6
453	571.1	578.9	496.2	440.9	384.6	295.9	200.4	121.0	74.2
458	606.4	565.3	460.8	429.7	401.4	292.7	206.1	115.2	71.2
463	577.5	570.6	454.1	417.4	359.7	274.5	188.0	122.0	100.3
468	590.0	573.5	456.6	415.4	351.2	283.0	197.0	131.5	70.5
473	576.0	569.7	492.2	440.5	396.9	327.1	227.5	137.0	103.9
478	558.6	548.6	465.4	442.2	428.5	340.0	266.4	142.0	84.6
483	588.9	616.5	439.1	384.6	335.1	272.3	200.8	111.2	70.7
488	532.3	563.8	508.2	462.6	454.5	389.1	312.8	205.7	147.6
493	458.7	454.0	436.2	411.7	383.3	343.3	312.6	244.5	83.7
498	400.2	381.4	366.1	339.5	314.7	270.7	230.7	161.6	64.7
503	546.6	455.6	353.3	321.5	279.4	231.2	195.1	129.7	81.6
508	580.4	623.1	431.0	365.0	292.4	226.0	173.7	116.0	79.7
513	599.2	565.9	465.9	410.0	352.2	254.9	185.3	123.5	71.1
518	640.1	587.7	442.7	407.3	327.3	222.4	165.5	111.5	53.3
523	660.3	628.6	456.6	394.8	324.6	216.9	156.6	94.2	69.0
528	625.6	639.1	493.3	421.8	359.5	226.4	164.6	114.2	86.8
533	633.0	615.5	497.3	444.4	373.0	258.9	187.8	131.4	109.9
538	675.6	656.3	504.9	440.5	385.7	256.3	201.8	147.9	89.5
543	708.0	692.6	527.2	460.7	371.3	257.4	198.2	126.6	83.1
548	615.4	632.1	542.8	482.6	425.2	313.4	240.9	153.1	139.4
553	766.0	818.0	563.8	483.8	429.9	365.2	275.0	181.8	136.6
558	806.0	911.0	641.6	551.7	496.0	432.4	332.1	188.1	138.4
563	845.0	859.0	640.1	538.5	491.6	430.1	273.2	200.3	128.4

Temperature measurements (°C), overcrowded experiment

time (s)	tree 5 tc 1	tree 5 tc 2	tree 5 tc 3	tree 5 tc 4	tree 5 tc 5	tree 5 tc 6	tree 5 tc 7	tree 5 tc 8	tree 5 tc 9
568	828.0	846.0	691.6	603.1	528.5	433.1	321.6	241.0	91.4
573	869.0	808.0	668.7	585.3	533.4	476.9	369.2	239.0	111.4
578	865.0	896.0	729.0	600.3	537.8	496.4	428.2	314.6	85.2
583	840.0	844.0	786.0	691.9	657.1	625.4	585.2	309.5	118.7
588	765.0	858.0	841.0	900.0	821.0	720.0	611.9	516.9	387.7
593	778.0	769.0	768.0	764.0	759.0	730.0	680.8	661.2	759.0
598	728.0	733.0	747.0	756.0	776.0	831.0	823.0	760.0	660.4
603	704.0	689.2	699.4	695.4	683.3	657.5	616.7	548.3	517.5
608	621.5	625.1	612.9	604.1	585.9	552.8	590.2	519.2	481.0
613	748.0	748.0	778.0	770.0	793.0	789.0	849.0	857.0	800.0
618	821.0	809.0	825.0	805.0	845.0	810.0	816.0	852.0	808.0
623	843.0	834.0	825.0	815.0	863.0	847.0	869.0	847.0	844.0
628	829.0	801.0	816.0	801.0	836.0	845.0	845.0	821.0	847.0
633	770.0	745.0	768.0	776.0	779.0	775.0	796.0	767.0	773.0
638	633.1	619.4	643.2	674.1	623.8	644.1	643.7	640.4	633.8
643	575.3	575.9	584.0	631.7	561.2	587.8	585.6	586.2	573.7
648	673.0	703.0	673.2	748.0	687.1	688.9	714.0	690.8	693.4
653	709.0	713.0	717.0	750.0	724.0	698.7	728.0	723.0	715.0
658	598.4	586.9	609.8	629.0	598.1	592.9	591.1	608.1	589.4
663	550.8	543.7	558.0	594.3	538.7	551.2	548.5	560.6	541.4
668	602.8	624.2	618.5	708.0	581.5	646.7	693.4	642.8	618.8
673	751.0	796.0	768.0	838.0	746.0	829.0	842.0	782.0	791.0
678	783.0	814.0	791.0	840.0	785.0	834.0	846.0	798.0	811.0
683	745.0	794.0	803.0	853.0	780.0	800.0	834.0	800.0	792.0
688	821.0	821.0	809.0	841.0	818.0	836.0	855.0	819.0	815.0
693	810.0	803.0	789.0	819.0	800.0	820.0	844.0	803.0	803.0
698	809.0	807.0	801.0	831.0	815.0	821.0	827.0	802.0	810.0
703	816.0	813.0	802.0	825.0	821.0	828.0	820.0	809.0	811.0
708	816.0	809.0	800.0	817.0	817.0	818.0	814.0	808.0	807.0
713	828.0	817.0	811.0	822.0	832.0	828.0	813.0	827.0	824.0
718	822.0	822.0	802.0	812.0	828.0	835.0	818.0	836.0	830.0
723	815.0	817.0	814.0	809.0	837.0	810.0	786.0	824.0	815.0
728	839.0	839.0	813.0	807.0	844.0	823.0	773.0	854.0	822.0
733	832.0	833.0	825.0	809.0	844.0	833.0	778.0	842.0	836.0
738	818.0	813.0	813.0	795.0	832.0	830.0	780.0	834.0	819.0
743	815.0	805.0	818.0	790.0	832.0	832.0	772.0	839.0	839.0
748	825.0	817.0	845.0	797.0	854.0	850.0	795.0	867.0	851.0
753	836.0	820.0	845.0	797.0	861.0	840.0	796.0	879.0	857.0
758	797.0	791.0	837.0	780.0	829.0	779.0	795.0	831.0	845.0
763	801.0	786.0	831.0	772.0	819.0	778.0	783.0	819.0	829.0
768	774.0	768.0	784.0	746.0	780.0	755.0	754.0	785.0	787.0
773	752.0	752.0	775.0	732.0	771.0	736.0	755.0	770.0	810.0
778	747.0	749.0	760.0	734.0	762.0	737.0	745.0	761.0	798.0
783	747.0	751.0	748.0	729.0	758.0	742.0	736.0	765.0	783.0
788	739.0	747.0	745.0	726.0	747.0	734.0	727.0	750.0	772.0
793	757.0	776.0	771.0	758.0	784.0	774.0	739.0	759.0	804.0
798	763.0	777.0	779.0	759.0	795.0	784.0	740.0	793.0	812.0
803	761.0	765.0	775.0	756.0	793.0	788.0	740.0	789.0	811.0
808	765.0	771.0	781.0	766.0	800.0	806.0	753.0	806.0	820.0
813	764.0	763.0	777.0	762.0	792.0	796.0	755.0	779.0	807.0
818	764.0	761.0	775.0	759.0	792.0	789.0	752.0	771.0	804.0
823	758.0	756.0	767.0	748.0	786.0	768.0	746.0	768.0	796.0
828	762.0	756.0	769.0	756.0	786.0	754.0	749.0	758.0	791.0
833	780.0	770.0	787.0	778.0	803.0	769.0	760.0	769.0	814.0
838	758.0	740.0	750.0	742.0	752.0	726.0	722.0	734.0	749.0
843	712.0	692.6	704.0	699.5	703.0	684.6	680.2	688.3	705.0
848	694.3	678.4	693.7	692.0	691.7	675.8	666.0	677.0	692.6
853	694.5	684.1	704.0	706.0	706.0	685.5	665.3	686.6	714.0
858	688.8	678.7	696.0	694.6	696.7	679.6	658.7	680.8	703.0
863	686.3	674.4	691.4	689.1	686.5	670.8	652.6	670.2	688.8
868	675.9	666.7	684.1	681.9	685.6	664.2	645.7	666.7	688.3
873	703.0	698.3	714.0	712.0	714.0	696.3	665.0	694.3	728.0
878	710.0	701.0	719.0	719.0	724.0	693.3	675.1	693.5	731.0

Temperature measurements (°C), overcrowded experiment

time (s)	tree 5 tc 1	tree 5 tc 2	tree 5 tc 3	tree 5 tc 4	tree 5 tc 5	tree 5 tc 6	tree 5 tc 7	tree 5 tc 8	tree 5 tc 9
883	703.0	683.1	700.0	696.3	698.5	666.3	666.1	672.1	700.0
888	698.7	681.8	701.0	704.0	705.0	670.9	667.3	669.6	708.0
893	685.9	668.4	682.2	682.6	686.6	658.3	654.1	660.6	686.5
898	693.9	678.1	697.3	697.6	698.2	668.1	661.7	668.0	695.9
903	706.0	702.0	715.0	714.0	714.0	710.0	676.2	688.2	719.0
908	716.0	715.0	729.0	721.0	726.0	717.0	687.0	701.0	723.0
913	721.0	723.0	736.0	727.0	736.0	730.0	691.5	718.0	722.0
918	726.0	722.0	740.0	730.0	739.0	719.0	696.7	718.0	730.0
923	733.0	729.0	745.0	734.0	744.0	721.0	703.0	725.0	737.0
928	740.0	737.0	755.0	741.0	757.0	741.0	721.0	734.0	753.0
933	749.0	753.0	762.0	749.0	767.0	756.0	731.0	745.0	756.0
938	738.0	732.0	742.0	731.0	741.0	720.0	709.0	723.0	729.0
943	725.0	717.0	731.0	722.0	733.0	706.0	699.7	713.0	716.0
948	722.0	713.0	731.0	722.0	731.0	701.0	694.8	710.0	711.0
953	716.0	708.0	723.0	715.0	722.0	693.8	687.5	703.0	707.0
958	725.0	721.0	738.0	727.0	741.0	713.0	700.0	719.0	724.0
963	716.0	707.0	722.0	712.0	722.0	693.4	689.6	702.0	708.0
968	700.0	691.3	704.0	695.7	703.0	674.5	674.3	686.1	687.9
973	689.2	684.4	698.0	689.5	701.0	673.2	667.5	683.4	686.7
978	713.0	713.0	728.0	716.0	738.0	709.0	690.5	714.0	718.0
983	706.0	698.3	710.0	699.9	713.0	686.3	683.5	695.0	698.6
988	698.1	692.4	702.0	695.1	705.0	681.2	678.0	691.3	694.3
993	699.7	698.0	710.0	695.2	708.0	678.3	672.3	694.9	696.5
998	695.9	695.0	714.0	695.3	711.0	678.3	664.5	696.4	697.9
1003	709.0	719.0	732.0	712.0	719.0	713.0	675.8	708.0	708.0
1008	673.4	685.8	667.7	659.1	662.3	686.0	664.5	663.8	675.5
1013	652.0	666.5	637.0	632.4	637.5	666.8	657.0	643.1	661.3
1018	635.7	645.1	618.5	614.9	620.7	647.2	645.9	624.2	645.4
1023	625.3	636.9	607.0	604.6	610.0	638.8	638.1	618.3	638.1
1028	616.0	623.2	598.3	595.1	601.1	626.0	628.9	607.9	627.1
1033	611.6	620.5	593.3	590.6	596.8	625.5	628.7	605.4	628.7
1038	609.0	621.8	589.9	586.3	594.0	630.8	631.8	605.2	635.1
1043	611.5	637.0	589.8	587.0	595.2	645.9	642.1	616.2	645.5
1048	609.5	629.3	588.4	585.4	593.1	637.1	637.1	611.2	639.4
1053	612.1	629.8	597.0	595.1	605.2	639.2	631.8	613.7	628.5
1058	612.9	626.3	605.8	604.3	609.0	640.9	626.2	611.6	632.9
1063	613.6	625.2	610.9	610.5	611.0	642.3	623.7	611.1	637.1
1068	616.4	628.0	618.6	619.3	613.6	646.9	624.9	613.7	639.5
1073	617.2	627.9	622.1	621.6	613.8	647.0	624.5	613.9	637.6
1078	618.4	629.4	625.4	625.6	615.9	648.6	625.8	615.6	636.9
1083	621.7	633.7	631.5	632.6	619.6	652.6	628.2	619.4	637.8
1088	625.6	637.1	636.6	638.5	624.1	656.0	631.2	623.3	639.6
1093	627.9	636.7	637.2	639.5	625.0	656.1	632.8	625.1	641.0
1098	625.8	632.0	634.6	635.7	624.9	650.5	631.3	623.7	637.4
1103	622.2	627.5	631.9	631.9	623.8	645.5	627.8	621.0	633.5
1108	619.3	623.9	629.6	628.8	622.6	641.3	624.9	619.1	630.9
1113	620.9	627.6	631.7	631.0	624.1	643.9	626.4	621.6	634.9
1118	625.5	631.8	636.2	635.6	627.2	648.4	630.1	625.1	639.0
1123	629.0	632.0	638.5	637.6	628.6	650.3	632.9	624.6	640.4
1128	631.9	633.1	640.6	641.6	630.8	651.9	634.4	626.4	642.3
1133	637.3	636.4	644.5	648.3	634.1	656.6	637.3	629.3	644.1
1138	642.2	638.1	648.7	653.5	637.6	661.7	642.1	633.3	647.0
1143	647.7	640.3	652.4	659.6	641.2	668.0	645.4	637.3	651.1
1148	651.4	643.2	654.3	662.9	644.5	671.0	648.4	640.8	653.5
1153	653.0	645.1	655.3	664.3	647.3	672.8	650.1	644.2	655.8
1158	653.8	647.0	656.4	665.2	649.1	674.6	649.1	646.7	656.4
1163	654.6	647.4	656.8	664.1	650.8	674.6	649.3	647.8	657.5
1168	656.1	649.5	658.2	666.3	652.5	675.1	650.8	649.0	661.3
1173	658.6	651.8	660.6	667.9	653.4	677.9	652.0	651.6	660.8
1178	659.5	653.3	662.5	668.2	657.1	679.2	653.9	652.5	664.0
1183	661.2	656.0	664.8	670.2	659.5	680.8	655.9	654.0	666.6
1188	662.1	657.2	665.6	670.6	661.1	682.3	656.8	654.5	668.0
1193	662.6	657.8	668.5	673.0	661.2	684.0	658.4	656.5	667.3

Temperature measurements (°C), overcrowded experiment

time (s)	tree 5 tc 1	tree 5 tc 2	tree 5 tc 3	tree 5 tc 4	tree 5 tc 5	tree 5 tc 6	tree 5 tc 7	tree 5 tc 8	tree 5 tc 9
1198	659.7	655.9	665.4	668.9	659.6	679.7	659.0	654.1	665.5
1203	658.7	655.6	665.0	667.4	659.2	677.0	659.2	653.2	667.3
1208	660.0	657.2	666.1	669.3	659.8	679.5	659.6	653.6	667.2
1213	659.8	656.8	666.5	668.0	660.2	678.7	660.3	654.1	667.4
1218	658.3	655.7	665.1	666.0	658.9	675.7	658.7	654.4	667.2
1223	656.6	654.2	663.9	664.5	657.9	673.0	657.3	653.7	666.5
1228	656.9	654.2	665.4	666.8	657.0	673.0	656.6	654.4	668.2
1233	656.6	653.7	664.7	665.8	656.0	671.9	655.1	654.6	667.2
1238	655.0	652.5	662.9	663.4	654.9	669.5	652.2	654.5	664.8
1243	654.1	651.5	662.4	662.4	654.5	667.6	649.9	653.3	661.4
1248	648.7	646.9	657.6	655.9	650.9	661.6	644.8	648.6	654.0
1253	646.4	645.5	655.6	653.2	648.8	659.7	641.7	647.2	654.5
1258	643.0	641.7	651.8	648.8	645.9	655.0	637.4	643.6	648.4
1263	638.6	637.5	647.7	643.6	642.3	649.8	632.3	639.8	642.9
1268	634.6	633.8	643.8	639.1	639.1	645.4	627.9	636.5	638.9
1273	630.7	629.9	639.9	634.8	635.6	641.2	623.7	632.6	634.4
1278	627.1	626.3	636.3	630.5	632.5	637.3	620.0	629.6	630.3
1283	623.8	622.8	632.9	626.8	629.3	633.5	616.2	626.2	626.4
1288	622.4	620.6	630.4	624.7	627.1	632.6	615.0	624.1	626.3
1293	622.2	619.4	628.6	623.7	625.0	632.5	615.0	623.2	626.0
1298	623.3	618.9	627.6	622.7	623.6	632.2	615.1	623.2	625.4
1303	623.0	617.6	626.3	621.1	622.2	631.4	614.7	622.0	623.6
1308	622.7	616.6	624.9	620.1	620.7	631.6	614.0	621.2	622.3
1313	621.9	614.9	623.1	618.0	619.8	628.8	613.3	619.3	621.5
1318	619.6	613.3	621.7	615.8	618.8	624.8	612.1	617.0	619.7
1323	617.6	611.9	620.8	614.2	617.0	622.4	610.7	615.2	618.0
1328	615.4	610.0	618.9	613.1	614.6	622.5	608.8	612.6	615.3
1333	614.4	608.9	617.1	611.8	613.2	621.3	608.1	611.5	613.9
1338	612.7	606.7	615.2	609.5	611.1	617.1	606.8	609.3	611.7
1343	610.3	604.8	613.4	607.4	609.3	615.5	605.2	606.8	609.3
1348	608.3	602.7	611.3	605.4	607.4	613.1	603.6	604.6	606.3
1353	607.3	602.2	610.2	605.1	606.0	613.3	603.2	603.4	603.7
1358	606.7	601.1	608.8	603.6	604.3	612.4	602.8	603.4	602.0
1363	604.6	599.3	607.1	601.8	603.2	609.6	601.8	601.2	600.2
1368	602.8	598.0	605.2	600.0	601.2	607.5	600.4	599.8	598.5
1373	600.7	596.1	602.9	597.2	599.4	604.4	597.6	597.7	594.7
1378	586.3	575.7	586.4	576.8	580.5	578.0	581.2	572.1	570.9
1383	580.5	571.1	582.6	572.5	576.5	571.5	575.0	566.9	567.5
1388	577.2	567.6	579.1	569.2	573.6	568.2	572.8	565.0	565.1
1393	574.3	565.1	575.9	566.1	571.1	566.0	571.3	563.5	563.1
1398	572.2	562.5	573.3	563.2	569.2	563.5	568.3	562.3	561.1
1403	570.1	559.9	570.8	560.6	567.1	560.9	565.0	560.4	559.1

APPENDIX E. TEMPERATURE MEASUREMENTS (SECTION 6)

Temperature measurements (°C), low flow burner experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
-127	21.9	21.9	21.9	21.9	21.9	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.9	21.9	21.9	21.8
-122	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.9	21.9	21.9	21.9
-117	21.9	21.9	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.9	21.9	21.9	21.8
-112	21.9	21.9	21.9	22.0	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.9	21.9	21.9	21.8
-107	21.9	22.0	22.0	22.0	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.9	21.9	21.9	21.8
-102	21.9	22.0	22.0	22.0	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.8	21.9	21.9	21.9	21.8
-97	21.9	22.0	22.0	21.9	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.9	21.9	21.9	21.9
-92	21.9	21.9	22.0	21.9	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.9	21.8	21.9	21.9	21.9	21.9
-87	21.9	21.9	22.0	22.0	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.8	21.9	21.9	21.9	21.8
-82	21.9	21.9	22.0	21.9	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.8	21.9	21.9	21.9	21.8
-77	21.9	21.9	21.9	22.0	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.8	21.9	21.9	21.9	21.8
-72	21.9	21.9	22.0	21.9	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.9	21.9	21.9	21.8
-67	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.8	21.9	21.9	21.9	21.8
-62	21.9	21.9	21.9	21.9	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.8	21.8	21.9	21.9	21.9	21.8
-57	21.9	21.9	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	21.9	21.9	21.9	21.8	21.9	21.9	21.9	21.8
-52	22.9	22.5	22.6	22.5	22.4	22.0	22.0	22.0	22.0	22.0	22.0	21.9	21.9	21.9	21.9	21.9	21.9	21.9
-47	23.6	23.1	22.6	22.4	22.3	22.0	22.0	22.0	22.1	22.0	22.0	22.0	21.9	21.9	22.0	22.0	22.0	21.9
-42	23.8	23.3	23.0	22.5	22.2	22.0	22.1	22.0	22.1	22.0	22.0	22.0	21.9	21.9	22.0	22.0	22.0	21.9
-37	24.0	23.5	22.9	22.4	22.2	22.0	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
-32	23.6	23.4	22.8	22.3	22.1	22.1	22.1	22.1	22.1	22.1	22.0	22.0	21.9	21.9	22.0	22.1	22.0	22.0
-27	24.0	23.6	23.1	22.5	22.2	22.3	22.1	22.1	22.1	22.1	22.0	22.1	21.9	21.9	22.0	22.0	22.1	22.0
-22	23.7	23.8	23.5	23.1	22.8	22.6	22.4	22.2	22.2	22.1	22.1	22.1	22.0	22.0	22.0	22.1	22.1	22.0
-17	24.2	24.0	23.9	23.5	23.1	22.9	22.6	22.4	22.4	22.3	22.1	22.1	22.0	22.0	22.1	22.1	22.0	22.0
-12	24.5	24.2	24.0	23.6	23.4	23.0	22.6	22.6	22.6	22.4	22.3	22.1	22.0	22.0	22.1	22.0	22.0	22.0
-7	25.1	24.7	24.2	23.7	23.5	23.0	22.7	22.6	22.6	22.4	22.3	22.1	22.0	22.0	22.1	22.0	22.0	22.0
-2	25.0	24.8	24.5	23.9	23.3	23.0	22.7	22.7	22.6	22.4	22.2	22.1	22.0	22.0	22.1	22.0	22.1	22.0
3	25.1	25.1	24.8	24.1	23.7	23.1	22.9	22.9	22.9	22.7	22.5	22.4	22.3	22.3	22.5	22.5	22.6	22.5
8	68.9	52.7	38.8	28.2	26.9	25.9	26.4	27.6	29.3	28.4	27.2	26.7	25.9	25.6	27.2	27.4	28.2	26.5
13	143.4	115.6	89.1	67.9	53.3	47.4	43.0	44.4	45.2	41.1	37.5	35.5	33.9	34.1	35.9	35.7	35.5	31.8
18	197.2	171.3	162.0	132.6	106.6	99.1	94.1	82.4	81.0	56.8	46.6	44.7	37.7	38.9	39.0	36.2	36.9	31.9
23	235.1	220.4	196.9	159.7	146.6	141.8	134.8	117.7	112.0	78.6	56.4	51.0	40.2	42.3	41.6	38.6	39.7	32.8
28	280.5	250.1	222.7	178.4	172.0	167.3	159.7	146.9	140.1	102.0	65.0	58.6	47.9	47.5	47.3	43.1	47.4	36.1
33	286.8	269.5	248.1	210.9	194.8	185.7	177.0	168.4	165.0	134.5	73.9	63.4	51.0	50.3	51.1	47.6	48.3	38.8
38	303.2	272.8	251.1	228.0	220.2	206.6	194.9	184.8	180.3	151.2	108.3	60.5	56.3	56.0	53.1	50.6	50.2	38.9
43	332.7	293.1	259.9	221.9	214.8	209.5	206.1	199.9	193.6	170.6	125.9	69.3	55.6	57.5	56.0	52.2	48.5	40.5
48	333.9	308.7	279.6	237.5	230.0	222.0	217.2	210.0	203.2	183.1	135.8	79.7	55.5	65.9	57.3	52.2	45.5	40.2
53	311.8	301.3	279.2	251.5	244.8	236.4	228.8	218.5	208.4	179.7	118.0	87.5	59.3	64.7	54.3	49.4	45.0	42.0
58	313.0	289.1	261.4	247.0	242.8	235.3	231.2	224.3	218.1	197.4	128.9	88.5	58.6	64.9	52.7	49.7	45.5	41.7
63	360.0	314.7	285.1	252.6	235.4	232.1	229.0	221.5	215.4	201.4	165.3	100.6	58.4	59.2	50.4	50.7	49.3	43.6
68	310.1	302.9	280.5	259.4	256.6	252.0	243.5	233.2	229.1	206.5	160.4	102.5	51.7	55.5	52.7	50.4	50.7	47.4
73	305.3	300.1	289.9	274.6	266.5	255.7	244.0	237.8	231.2	215.9	175.0	111.7	54.1	58.6	54.4	49.6	48.1	46.7
78	296.2	287.0	273.8	263.3	261.9	258.5	248.6	240.8	238.4	219.6	187.3	108.4	57.9	58.8	55.6	54.3	53.8	50.0
83	266.6	265.1	256.3	249.1	246.1	237.6	233.4	233.0	225.4	211.8	191.5	160.1	62.5	56.9	53.4	52.3	53.2	48.3
88	320.0	291.4	277.3	261.5	256.3	236.0	232.5	225.7	215.1	201.2	181.2	149.4	73.0	62.7	55.2	51.4	49.5	47.4
93	286.8	286.5	285.0	269.7	259.3	250.2	244.2	232.7	225.7	218.9	195.1	124.3	68.1	64.0	56.6	51.9	50.9	50.2
98	254.4	255.9	256.4	254.3	248.5	247.3	244.3	240.2	237.6	233.2	188.7	136.0	70.1	60.2	54.3	50.6	48.7	47.6
103	288.3	270.1	264.9	257.7	255.2	252.2	244.5	237.9	235.5	216.2	175.9	151.8	79.2	58.6	53.4	53.9	52.9	51.5
108	270.4	268.1	262.7	255.2	252.7	239.6	232.5	230.5	226.0	209.5	187.8	153.3	93.9	65.3	60.6	52.2	49.7	48.8
113	309.5	286.3	269.6	251.8	246.4	238.1	241.1	235.4	231.1	224.8	205.8	165.3	79.5	66.0	59.3	52.7	51.3	49.2
118	297.5	285.4	275.2	264.7	262.9	256.6	245.3	242.3	241.2	229.4	202.2	171.6	93.5	72.9	62.2	54.4	51.5	51.0
123	302.5	282.4	273.2	252.2	244.9	245.2	241.4	237.1	232.7	218.0	204.9	183.7	100.9	67.0	63.0	57.8	50.4	48.1
128	291.6	276.4	278.5	272.8	271.5	269.6	248.2	242.4	236.4	220.7	201.7	168.1	100.9	80.6	65.1	56.9	51.9	50.4
133	284.8	278.1	279.7	273.6	267.3	261.3	248.1	241.5	238.1	228.3	215.8	184.7	96.6	72.8	63.2	59.6	55.4	53.4
138	275.8	270.1	276.0	273.0	267.2	257.2	251.3	245.3	243.6	234.2	214.3	175.3	84.1	74.7	67.1	59.4	54.4	52.3
143	316.2	293.4	294.2	280.5	280.7	269.2	250.3	243.9	238.3	228.4	203.2	176.3	104.9	82.0	71.0	65.5	62.0	55.5
148	287.2	279.3	275.1	270.2	271.9	266.4	249.0	241.7	238.1	228.5	217.1	189.7	134.4	87.1	70.4	62.2	53.5	51.6
153	309.3	288.9	294.5	284.8	277.7	270.7	256.1	246.6	241.0	225.0	210.8	180.5	102.5	96.7	82.4	67.1	60.7	57.5
158	294.9	288.2	291.3	278.5	269.6	257.0	249.9	242.0	232.9	222.4	201.6	170.6	118.0	94.9	67.6	60.3	59.9	59.5
163	277.1	272.8	273.1	267.5	266.7	256.0	250.6	246.8	243.4	231.0	208.1	184.3	114.2	86.5	73.2	61.3	54.2	54.0
168	308.5	287.6	296.9	291.1	294.8	278.7	262.2	256.5	254.8	249.2	217.4	171.7	100.5	87.8	79.3	66.5	63.3	56.8

Temperature measurements (°C), low flow burner experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
173	301.1	291.5	290.4	289.6	282.3	266.8	257.9	244.0	239.6	228.0	197.1	177.0	128.4	99.8	73.1	60.8	55.6	56.4
178	296.9	285.5	285.3	275.4	271.0	267.7	257.1	248.8	243.4	225.8	203.0	183.8	141.7	92.5	84.1	72.5	62.8	59.2
183	300.5	285.1	287.9	278.7	274.3	266.0	254.7	248.6	242.3	230.9	205.7	173.9	131.8	104.0	77.3	65.4	63.8	57.3
188	304.0	291.1	292.2	279.6	274.8	268.0	253.5	241.8	244.7	236.1	224.8	199.5	123.6	89.5	77.7	66.0	59.0	58.7
193	306.2	288.3	280.3	274.7	274.1	271.1	259.7	251.8	247.7	240.9	230.5	185.2	97.1	86.3	80.4	67.7	64.1	57.9
198	326.8	303.6	311.4	296.6	289.8	283.5	269.2	257.6	254.2	240.8	226.2	187.0	106.7	103.9	80.1	61.7	59.7	58.5
203	308.5	295.1	293.9	282.3	282.1	276.3	266.6	261.5	252.7	248.1	230.4	196.0	102.5	82.0	74.3	65.1	59.4	59.8
208	301.0	286.8	291.4	288.0	278.0	273.2	261.1	261.4	253.2	244.3	237.4	211.8	100.4	87.3	72.1	70.4	65.2	60.8
213	295.5	287.1	291.5	285.8	285.3	273.3	265.6	255.5	249.0	242.0	231.0	200.9	117.3	87.6	73.8	67.5	61.2	61.7
218	302.4	292.4	291.8	278.3	270.4	268.7	264.5	255.8	251.0	242.3	235.4	196.0	97.1	88.6	71.6	63.5	62.4	61.0
223	315.1	297.8	299.0	293.5	286.0	278.8	267.9	259.9	256.9	250.8	230.8	178.8	104.6	86.7	76.5	69.1	63.0	63.0
228	325.7	309.9	312.7	304.6	292.8	282.3	266.4	257.9	257.0	246.2	227.0	163.5	111.8	88.8	79.2	68.1	63.8	61.5
233	292.5	288.3	286.9	281.1	281.4	273.9	267.7	257.7	255.1	246.4	230.5	199.6	107.9	82.6	74.8	68.5	68.8	65.0
238	330.2	303.9	300.8	289.7	285.9	280.7	268.5	261.2	253.5	241.7	224.7	176.4	116.2	93.9	79.6	75.9	77.7	73.6
243	334.7	303.7	300.1	291.9	296.8	287.3	274.8	264.8	256.7	252.3	232.0	200.8	106.0	91.2	72.8	71.1	72.4	66.2
248	293.0	287.3	284.9	278.9	279.4	274.2	266.1	261.6	260.3	255.0	245.3	205.6	108.5	89.7	74.1	68.9	66.6	63.1
253	308.1	296.2	299.0	289.4	287.5	284.1	267.0	262.0	256.2	244.2	222.7	188.8	112.7	89.4	78.9	71.6	69.2	61.8
258	318.5	305.5	301.0	287.7	283.9	272.3	268.4	263.5	259.4	249.5	215.5	157.3	114.2	93.5	76.8	69.8	65.9	64.8
263	299.3	290.6	296.2	289.4	288.3	276.0	269.5	261.3	259.9	248.9	216.4	191.1	108.5	95.1	85.5	76.7	69.7	65.8
268	317.5	300.1	302.2	298.0	299.4	283.3	265.5	258.2	253.3	245.1	231.2	180.7	113.5	107.7	76.9	67.7	65.7	66.8
273	319.9	307.6	301.3	284.0	279.2	274.8	268.6	259.4	256.1	250.7	232.8	174.0	110.5	107.7	87.8	77.5	76.5	67.8
278	300.6	295.2	291.8	284.2	282.9	276.6	270.2	264.0	264.1	256.5	226.1	189.6	113.0	103.1	83.6	76.0	69.8	66.8
283	309.3	296.6	299.4	296.5	294.9	277.5	267.8	261.1	252.2	240.3	230.0	207.4	127.5	91.4	78.8	70.2	67.3	67.8
288	325.8	305.0	313.7	306.0	304.6	295.6	271.9	264.8	258.3	241.7	231.1	173.6	114.9	101.1	86.0	73.9	70.0	66.4
293	318.6	303.9	299.8	293.6	286.0	271.6	267.8	254.9	253.7	242.6	232.4	186.0	116.6	95.2	84.8	71.9	71.4	68.5
298	298.0	291.7	291.4	282.7	280.9	284.2	278.9	263.0	260.4	253.8	242.3	178.2	105.3	103.5	86.9	72.9	71.0	72.0
303	320.9	307.2	305.0	295.2	291.7	287.4	278.8	263.7	258.7	251.7	237.8	202.7	118.3	94.2	81.0	71.8	66.8	68.3
308	327.4	306.8	300.0	281.9	279.2	279.0	271.7	260.7	257.8	253.7	227.9	192.6	106.0	102.7	89.3	81.0	74.4	70.5
313	340.8	319.5	303.6	292.8	291.7	286.4	276.5	268.4	264.9	251.5	238.1	166.0	132.4	117.2	82.9	78.8	78.0	72.6
318	307.1	299.5	296.3	287.6	284.2	279.9	276.9	272.6	262.5	248.5	231.4	196.3	119.4	95.1	88.6	80.6	74.2	69.4
323	328.2	311.4	311.5	305.0	297.3	287.4	269.5	265.4	263.5	245.6	219.5	181.8	130.3	109.0	89.4	80.4	78.3	75.7

Temperature measurements (°C), low flow burner experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
-127	22.2	22.2	22.2	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.1
-122	22.2	22.2	22.2	22.2	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.1
-117	22.2	22.2	22.2	22.1	22.2	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.1
-112	22.2	22.2	22.2	22.2	22.2	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
-107	22.2	22.2	22.2	22.2	22.2	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
-102	22.2	22.2	22.2	22.2	22.2	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
-97	22.2	22.2	22.2	22.2	22.2	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
-92	22.2	22.2	22.2	22.2	22.2	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
-87	22.2	22.2	22.2	22.2	22.2	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
-82	22.2	22.2	22.2	22.2	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
-77	22.2	22.2	22.2	22.2	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
-72	22.2	22.2	22.3	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
-67	22.3	22.3	22.3	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
-62	22.3	22.3	22.2	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
-57	22.3	22.3	22.3	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
-52	22.3	22.3	22.2	22.1	22.2	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.1
-47	22.3	22.2	22.3	22.1	22.1	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.1
-42	22.2	22.2	22.3	22.1	22.1	22.1	22.2	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.1
-37	22.2	22.2	22.3	22.2	22.1	22.1	22.1	22.1	22.1	22.0	22.1	22.0	22.0	22.1	22.0	22.0	22.0	22.0
-32	22.2	22.3	22.2	22.2	22.2	22.1	22.1	22.1	22.0	22.0	22.0	22.1	22.0	22.1	22.0	22.0	22.0	22.0
-27	22.2	22.2	22.2	22.1	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.1	22.1	22.1	22.0	22.0	22.0	22.0
-22	22.2	22.1	22.2	22.1	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.1	22.1	22.1	22.0	22.0	22.0	22.1
-17	22.2	22.2	22.2	22.1	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.1	22.1	22.1	22.0	22.1	22.0	22.1
-12	22.3	22.2	22.3	22.1	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.1	22.0	22.0	22.0
-7	22.3	22.2	22.2	22.1	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.1	22.0	22.1	22.0	22.1
-2	22.3	22.2	22.2	22.1	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.1	22.0	22.0
3	22.3	22.2	22.2	22.1	22.1	22.1	22.1	22.1	22.0	22.0	22.0	22.1	22.0	22.0	22.0	22.1	22.0	22.0
8	22.4	22.3	22.2	22.2	22.2	22.1	22.1	22.1	22.0	22.0	22.1	22.1	22.1	22.1	22.1	22.1	22.0	22.1
13	22.5	22.7	22.4	22.6	22.5	22.4	22.3	22.2	22.1	22.1	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2
18	29.8	57.3	29.6	47.4	40.2	32.6	26.9	26.4	23.5	22.7	22.4	22.3	22.3	22.3	22.3	22.2	22.2	22.2
23	42.0	93.8	45.2	89.5	77.5	54.0	33.3	34.2	29.2	27.9	25.8	26.6	24.7	24.0	23.5	23.9	22.5	22.3
28	61.4	122.6	62.0	124.4	112.4	102.0	92.5	88.0	65.6	54.9	44.1	34.4	26.7	26.1	24.7	24.1	23.1	22.6
33	70.4	144.5	78.3	139.8	126.5	118.5	111.1	106.0	92.2	65.1	39.1	29.3	25.8	24.7	23.4	23.1	22.9	22.5
38	77.0	152.0	91.2	151.5	136.7	129.5	127.4	115.4	104.8	84.3	54.8	29.4	25.5	24.5	23.5	23.1	23.1	22.7
43	81.5	170.4	105.8	163.3	150.9	142.7	136.6	129.8	112.9	89.7	41.0	28.1	25.4	24.4	23.7	23.1	23.2	22.7
48	92.9	180.3	117.5	163.0	155.8	148.4	142.6	144.5	134.9	107.4	58.7	27.2	25.1	24.6	23.8	23.3	23.2	22.8
53	87.8	185.7	130.9	177.2	168.8	160.5	154.0	151.5	140.4	112.1	77.8	26.6	25.3	24.5	23.7	23.5	23.4	23.0
58	95.9	184.1	142.1	188.8	179.7	167.2	163.1	160.1	148.5	121.1	78.6	28.3	26.2	24.7	23.9	23.8	23.5	23.1
63	97.6	192.3	149.5	181.9	175.7	170.9	160.2	152.2	146.8	123.7	69.4	31.1	26.7	25.1	24.4	24.0	23.7	23.2
68	97.0	196.7	156.6	189.8	178.4	172.0	163.3	151.2	149.7	123.9	73.8	31.7	26.8	25.0	24.5	23.9	23.9	23.4
73	100.6	197.2	165.0	202.7	186.8	175.0	167.7	164.3	153.5	131.3	101.6	38.8	27.8	25.6	24.8	24.2	24.4	23.7
78	107.9	201.1	172.6	207.1	199.0	186.4	180.6	177.0	163.6	145.2	111.2	40.5	27.6	25.7	24.6	24.5	24.5	23.8
83	105.7	198.9	176.6	202.5	197.4	185.1	179.7	171.8	158.5	141.3	109.1	45.1	28.2	26.5	25.4	25.1	24.9	23.9
88	102.4	192.4	178.9	199.8	191.7	180.7	174.8	174.5	169.7	151.5	117.0	45.8	28.8	26.4	25.9	25.2	25.3	24.2
93	110.3	186.2	179.0	186.7	180.0	174.6	169.8	163.5	154.0	142.5	114.5	63.1	30.6	27.2	25.5	25.0	25.5	24.2
98	102.2	201.4	183.2	201.9	189.8	181.1	176.9	178.7	163.8	144.2	117.3	68.0	30.7	27.5	26.0	25.1	25.8	24.3
103	100.7	189.2	184.2	194.6	186.1	181.3	179.3	172.4	164.1	149.0	123.8	81.9	31.5	28.1	26.5	25.3	26.2	24.5
108	102.6	207.1	186.2	189.4	184.1	181.6	179.0	168.7	159.3	146.9	124.2	86.3	31.3	27.7	27.0	25.5	26.3	24.6
113	110.0	196.6	187.9	204.0	196.6	185.7	180.1	180.5	169.6	153.4	126.5	90.5	32.7	28.2	27.2	25.7	26.5	24.8
118	112.7	193.7	188.4	202.1	196.1	191.1	177.9	175.5	163.4	148.2	127.4	79.3	33.1	28.4	27.8	25.9	26.7	24.7
123	104.7	198.9	190.4	206.4	198.9	189.1	180.6	172.1	168.9	152.0	125.4	83.9	36.8	29.1	27.6	26.0	26.8	24.9
128	113.8	190.9	189.5	193.3	190.2	183.4	180.1	179.1	172.0	156.1	130.3	98.6	37.1	29.5	27.4	26.5	27.3	25.3
133	106.5	204.1	191.8	204.0	192.5	186.4	182.4	185.0	166.8	154.6	133.8	82.5	38.3	30.4	27.8	26.6	27.5	25.3
138	111.6	206.0	192.9	200.0	192.7	185.3	180.7	178.9	171.2	153.7	131.4	72.2	37.6	31.1	28.3	26.9	27.5	25.1
143	105.5	195.7	192.3	192.8	186.2	183.0	179.2	178.5	169.9	154.5	132.7	80.1	36.4	31.1	28.6	27.6	27.8	25.5
148	109.8	214.2	195.2	207.5	194.6	184.3	174.5	169.6	166.2	147.5	126.7	86.3	35.5	29.4	28.3	27.3	28.1	25.5
153	112.5	209.1	194.7	196.6	192.3	186.4	178.9	172.1	163.7	149.1	131.2	91.8	35.7	30.4	29.0	27.0	27.8	26.0
158	113.7	203.9	196.3	210.6	200.8	188.4	183.3	185.4	175.3	157.0	136.0	95.9	35.1	30.9	28.3	27.7	27.8	26.2
163	112.5	210.2	197.0	203.9	193.4	184.4	180.8	180.5	170.4	157.9	129.9	79.1	36.0	30.7	28.6	28.0	28.4	25.8
168	116.0	200.8	195.7	203.4	197.9	195.7	189.5	185.1	171.3	159.0	135.7	102.2	36.2	31.1	27.4	27.3	28.3	25.7
173	116.5	211.0	198.2	207.4	200.1	191.9	183.9	179.6	170.3	153.6	130.1	84.5	37.3	30.6	27.1	28.1	28.1	25.5
178	116.6	203.8	198.5	208.2	198.7	192.0	185.9	182.9	173.6	156.2	134.2	89.9	35.9	30.4	27.9	28.0	28.5	25.8
183	119.0	203.9	198.5	202.5	195.4	190.9	186.8	182.4	172.9	155.8	137.1	105.8	35.4	30.9	28.9	28.1	29.0	26.2

Temperature measurements (°C), low flow burner experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
188	124.8	201.4	198.7	206.5	202.2	195.4	189.8	183.4	175.5	159.7	136.6	96.6	36.8	31.8	28.9	27.9	29.1	26.4
193	125.0	212.2	200.5	211.3	205.4	195.5	186.6	183.3	177.2	157.5	136.2	89.7	37.1	31.1	28.0	28.4	28.8	26.4
198	128.2	205.0	202.2	212.0	206.6	199.5	191.4	185.6	175.9	159.6	137.4	78.0	38.5	31.6	29.2	28.3	29.4	26.3
203	124.0	208.7	203.2	216.1	209.5	200.0	188.5	183.2	173.5	158.6	136.9	102.6	39.2	31.8	28.4	28.1	28.9	26.6
208	121.8	212.8	203.9	214.5	209.8	198.9	191.1	189.5	177.6	164.1	141.4	106.7	37.6	32.1	29.2	28.4	28.9	27.3
213	125.1	205.1	201.7	201.1	196.1	192.2	186.2	183.0	176.9	159.6	135.7	83.7	38.7	32.0	29.5	29.2	29.3	26.7
218	122.0	214.6	203.3	211.2	203.9	197.3	191.4	190.4	183.5	161.5	144.0	109.4	39.5	32.2	29.9	28.8	29.5	27.1
223	122.5	219.5	205.0	213.0	204.5	196.8	186.5	180.0	172.7	158.4	140.7	102.4	41.3	32.3	29.5	29.5	30.0	26.7
228	127.6	217.3	206.4	220.2	208.2	201.4	193.0	187.5	176.2	160.1	140.2	89.9	40.7	33.3	29.4	28.4	29.7	27.0
233	128.4	217.7	207.5	217.4	209.5	201.4	193.9	188.5	181.1	162.4	137.7	97.5	39.8	33.9	30.0	29.2	29.9	27.4
238	132.4	215.8	208.2	220.6	205.9	196.9	191.2	188.1	177.1	163.7	145.4	113.9	42.9	33.8	30.6	29.3	29.8	27.8
243	125.1	223.1	208.5	212.6	203.6	195.8	192.5	190.6	177.8	162.6	145.0	103.0	40.6	33.7	30.1	30.0	30.1	27.8
248	125.8	222.9	207.3	203.8	196.1	190.8	187.2	183.8	175.2	153.1	135.1	94.1	40.1	33.5	30.8	29.5	30.0	27.3
253	122.3	207.3	207.6	212.7	206.3	200.3	193.2	187.1	177.5	161.6	141.4	106.7	39.2	33.7	30.7	29.3	30.3	27.7
258	138.5	211.9	207.3	216.2	209.2	204.2	196.9	188.6	174.7	160.6	141.0	115.8	41.6	34.1	31.1	29.5	30.7	27.9
263	132.4	219.9	208.2	216.3	208.8	198.9	192.9	185.4	175.9	161.6	141.6	113.8	42.3	33.9	31.5	30.4	30.3	27.6
268	131.4	209.7	206.0	211.2	206.5	200.0	187.8	189.7	182.6	164.1	145.3	106.4	43.5	34.5	31.5	30.5	30.4	28.0
273	129.9	221.6	208.3	218.0	203.1	195.5	189.3	189.5	183.5	167.3	146.9	103.8	43.2	33.9	31.1	30.4	31.0	28.2
278	130.7	223.0	208.7	216.2	206.0	198.5	194.2	195.6	181.5	166.6	147.2	117.6	40.1	34.6	31.7	30.0	30.8	28.1
283	130.2	217.5	208.8	216.1	205.1	196.7	190.9	189.2	181.0	165.3	148.3	124.0	41.8	34.5	32.1	29.9	31.3	27.3
288	134.9	214.9	207.0	208.4	201.2	193.7	187.1	182.6	174.6	163.8	142.3	103.9	45.1	34.5	32.2	30.7	31.5	27.5
293	130.3	224.2	208.7	217.5	210.8	201.2	195.5	197.7	182.5	167.0	147.5	125.2	42.3	34.2	32.1	30.3	30.9	27.7
298	132.7	223.3	209.7	219.5	209.4	200.1	195.6	193.5	179.1	162.7	145.0	114.7	43.0	34.5	31.3	30.7	31.2	27.9
303	135.4	215.8	209.8	219.2	212.1	202.1	197.9	193.6	181.0	168.9	142.7	104.3	43.1	35.4	32.0	31.0	30.9	27.9
308	135.6	222.7	210.6	217.3	207.2	201.4	195.4	197.4	190.9	169.7	150.1	103.5	42.3	35.1	32.0	30.9	30.3	28.6
313	133.7	220.9	210.1	215.5	207.2	198.5	193.2	195.4	187.0	170.3	148.7	108.7	43.2	35.4	31.4	30.9	30.4	28.4
318	142.4	225.0	211.3	222.8	212.4	201.1	193.1	195.6	184.9	166.4	148.6	125.9	49.1	35.0	31.9	31.0	30.5	28.6
323	128.7	222.8	211.8	221.3	212.2	198.4	195.7	192.3	184.0	168.4	150.3	120.5	43.7	34.9	32.5	30.6	30.9	28.2

Temperature measurements (°C), low flow burner experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6
-127	22.0	22.0	22.0	21.9	21.9	21.9
-122	22.0	22.0	21.9	21.9	21.9	21.9
-117	22.1	22.0	22.0	21.9	21.9	21.9
-112	22.2	22.0	22.0	21.9	21.9	21.9
-107	22.1	22.1	22.0	22.0	21.9	21.9
-102	22.1	22.0	22.0	22.0	21.9	21.9
-97	22.1	22.0	22.1	22.0	22.0	21.9
-92	22.1	22.0	22.0	22.0	22.0	22.0
-87	22.1	22.0	22.1	22.0	22.0	22.0
-82	22.1	22.1	22.0	22.0	22.0	22.0
-77	22.1	22.0	22.0	22.0	22.0	21.9
-72	22.1	22.0	22.0	22.0	22.0	21.9
-67	22.1	22.0	22.0	22.0	22.0	21.9
-62	22.0	22.0	22.0	22.0	22.0	21.9
-57	22.1	22.0	22.0	22.0	22.0	21.9
-52	22.1	22.1	22.0	22.0	22.0	21.9
-47	22.1	22.0	22.0	22.0	22.0	21.9
-42	22.2	22.1	22.1	22.0	22.0	22.0
-37	22.3	22.1	22.1	22.1	22.0	22.0
-32	22.3	22.2	22.1	22.1	22.0	22.0
-27	22.2	22.2	22.1	22.1	22.1	22.0
-22	22.1	22.1	22.1	22.1	22.1	22.0
-17	22.1	22.1	22.1	22.1	22.1	22.0
-12	22.1	22.1	22.1	22.1	22.0	22.0
-7	22.1	22.1	22.1	22.0	22.0	21.9
-2	22.1	22.1	22.1	22.1	22.0	22.0
3	22.1	22.1	22.1	22.0	22.0	21.9
8	22.1	22.0	22.0	22.0	22.0	21.9
13	22.1	22.0	22.0	22.0	22.0	22.0
18	22.2	22.0	22.0	22.0	22.0	21.9
23	22.3	22.0	22.0	22.0	22.0	22.0
28	22.3	22.1	22.0	22.0	22.0	22.0
33	33.8	28.3	27.2	23.1	22.0	22.0
38	49.2	31.8	23.9	22.5	22.1	22.0
43	49.3	36.6	25.6	23.5	22.2	22.1
48	56.2	44.7	38.4	35.8	32.3	27.4
53	67.1	49.9	43.2	38.3	33.4	25.4
58	75.5	63.1	49.6	45.6	39.5	25.4
63	75.6	68.0	60.8	54.8	43.0	24.8
68	79.5	70.3	65.9	59.0	52.2	25.2
73	88.8	77.9	72.2	61.5	54.1	31.0
78	90.5	78.1	70.6	64.7	57.4	36.2
83	98.1	81.7	74.4	69.1	60.6	41.3
88	96.4	87.6	79.6	74.7	68.2	47.6
93	102.1	89.7	83.9	76.5	68.9	50.5
98	107.3	88.6	82.6	79.4	70.8	55.3
103	102.2	97.7	91.6	85.0	74.8	59.4
108	114.1	103.4	93.7	85.9	77.6	62.4
113	111.5	98.2	91.8	86.5	79.1	64.0
118	111.7	102.3	95.0	87.8	80.7	63.3
123	107.9	105.6	99.1	90.5	83.6	65.8
128	111.1	104.5	97.9	88.0	81.3	66.4
133	114.7	106.1	100.9	90.1	82.2	67.4
138	108.7	103.5	99.1	90.5	83.6	69.3
143	110.3	103.4	101.2	93.1	83.9	72.5
148	112.2	103.2	101.9	93.2	84.8	72.0
153	114.4	104.1	99.5	92.0	86.5	73.6
158	115.6	107.5	102.1	91.8	86.4	75.5
163	112.7	107.7	103.8	92.6	89.1	77.1
168	115.3	109.2	103.0	95.5	88.8	77.1
173	116.9	110.7	102.1	93.7	88.4	78.4
178	115.4	111.6	102.9	96.6	89.2	78.2

Temperature measurements (°C), low flow burner experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6
183	122.4	112.0	105.8	96.1	89.0	77.5
188	120.1	112.7	105.9	95.3	91.4	80.7
193	122.4	110.9	103.4	96.4	91.2	78.4
198	117.6	113.3	107.9	100.2	90.5	77.7
203	123.8	114.0	108.7	98.6	90.8	81.2
208	120.9	112.1	108.0	99.4	88.8	79.8
213	120.0	113.5	106.7	97.9	88.5	78.9
218	119.6	118.5	111.0	101.6	91.3	80.1
223	119.6	115.7	112.0	103.2	91.6	78.9
228	126.6	118.2	108.5	99.6	93.8	83.5
233	125.5	112.8	105.3	99.1	94.3	81.8
238	124.5	115.1	107.4	97.8	93.6	82.8
243	126.3	116.4	110.9	99.9	96.3	83.1
248	129.4	117.4	111.3	102.0	93.9	79.7
253	124.4	116.2	108.7	101.9	95.9	82.9
258	122.2	115.9	109.6	100.6	94.6	81.8
263	125.7	119.8	113.3	101.1	95.7	82.8
268	124.7	119.6	112.9	101.3	94.3	82.5
273	125.2	116.6	107.9	100.3	94.0	84.0
278	127.0	121.1	112.1	101.2	94.0	84.0
283	127.7	124.6	119.6	107.5	96.1	85.9
288	127.7	119.6	113.6	103.3	94.6	85.2
293	128.0	115.9	111.8	102.1	94.7	87.5
298	128.8	119.6	109.6	102.3	97.1	87.2
303	128.8	121.7	112.6	103.4	97.6	86.2
308	125.1	119.0	112.5	103.6	98.3	86.0
313	125.3	118.2	111.7	102.3	98.9	86.1
318	125.6	115.0	111.1	102.7	97.3	87.5
323	129.1	118.5	112.8	103.7	99.7	88.5

Temperature measurements (°C), high flow burner experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
-126	34.7	34.0	33.3	32.7	32.1	30.9	30.4	29.6	29.4	28.5	27.9	27.7	27.2	27.3	27.2	27.1	26.9	26.9
-121	34.6	34.1	33.2	32.7	32.1	31.0	30.5	29.6	29.4	28.5	28.0	27.8	27.2	27.3	27.2	27.0	26.8	27.0
-116	34.7	34.1	33.3	32.7	32.1	31.0	30.4	29.6	29.3	28.4	28.0	27.9	27.3	27.2	27.1	27.0	26.8	26.9
-111	34.7	34.1	33.3	32.7	32.2	31.0	30.4	29.7	29.3	28.4	28.1	27.8	27.3	27.3	27.1	26.9	26.8	26.8
-106	34.6	34.0	33.3	32.7	32.2	31.0	30.4	29.7	29.3	28.5	28.0	27.7	27.4	27.2	27.0	27.0	26.8	26.9
-101	34.7	34.1	33.4	32.8	32.2	31.1	30.5	29.7	29.4	28.6	28.2	27.8	27.4	27.4	27.0	26.9	26.8	26.9
-96	34.6	34.0	33.3	32.7	32.1	31.1	30.4	29.7	29.4	28.7	28.3	27.7	27.4	27.5	27.1	26.9	26.8	26.8
-91	34.6	34.0	33.3	32.7	32.1	31.1	30.4	29.7	29.3	28.6	28.2	27.6	27.5	27.6	27.1	26.9	26.8	26.9
-86	34.6	34.0	33.4	32.8	32.3	31.1	30.4	29.7	29.4	28.7	27.9	27.7	27.4	27.4	27.1	26.9	26.8	26.8
-81	34.7	34.1	33.4	32.8	32.0	31.1	30.3	29.7	29.3	28.7	28.0	27.8	27.3	27.4	27.2	26.9	27.0	26.8
-76	34.7	34.1	33.4	32.9	32.2	31.1	30.4	29.7	29.3	28.5	28.1	27.8	27.2	27.4	27.1	26.9	27.0	27.0
-71	34.8	34.0	33.4	32.9	32.1	31.1	30.4	29.6	29.2	28.5	28.0	27.9	27.5	27.3	27.0	27.1	27.0	27.1
-66	34.7	34.0	33.3	32.7	32.0	30.9	30.3	29.5	29.1	28.4	28.1	28.0	27.5	27.2	27.1	27.0	27.0	27.1
-61	34.6	34.0	33.3	32.7	32.0	31.0	30.3	29.4	29.1	28.4	28.2	27.9	27.6	27.1	27.2	27.0	27.0	27.0
-56	34.6	34.0	33.2	32.7	32.0	31.1	30.3	29.7	29.2	28.5	28.1	27.9	27.7	27.3	27.1	27.0	27.0	27.0
-51	34.6	34.0	33.3	32.6	31.9	30.9	30.4	29.7	29.3	28.4	28.1	28.0	27.7	27.3	27.1	27.1	27.5	27.4
-46	34.5	33.9	33.2	32.6	32.0	31.2	30.7	29.8	29.4	28.6	28.1	27.9	27.7	27.4	27.3	27.1	27.6	27.4
-41	34.6	34.0	33.1	32.7	32.3	31.5	31.0	30.0	29.5	28.8	28.4	27.9	27.8	27.8	27.4	27.3	27.4	27.5
-36	34.7	34.0	33.5	33.0	32.7	31.6	31.2	30.1	29.4	28.9	28.6	28.1	27.8	27.7	27.6	27.3	27.4	27.4
-31	34.4	33.8	33.4	33.2	33.0	31.5	31.2	30.0	29.4	28.9	28.5	28.2	27.9	27.9	27.7	27.6	27.6	27.6
-26	34.5	33.8	33.3	33.1	32.8	31.7	31.1	30.1	29.5	29.0	28.6	28.3	27.9	27.8	27.7	27.6	27.8	27.7
-21	34.3	33.7	33.2	33.0	32.5	31.6	31.1	30.4	29.6	29.3	28.7	28.5	27.8	27.8	27.7	27.8	27.8	28.0
-16	34.3	33.8	33.3	33.1	32.6	31.8	31.3	30.5	29.8	29.4	28.7	28.5	27.8	27.9	27.8	27.8	27.8	27.9
-11	34.4	33.8	33.3	33.1	32.8	32.2	31.6	30.6	30.0	29.5	28.8	28.6	27.9	27.9	27.8	27.7	28.0	28.2
-6	33.4	33.1	33.1	33.2	32.9	32.1	31.4	30.7	29.9	29.5	28.9	28.6	28.1	28.0	27.9	27.9	27.7	27.7
-1	33.1	32.6	32.5	32.8	32.8	31.9	31.2	30.7	29.9	29.2	28.8	28.4	27.9	27.9	27.9	27.9	28.0	27.6
4	32.2	32.2	32.4	32.6	32.4	32.1	31.3	30.7	29.8	29.2	28.8	28.4	28.0	27.9	27.8	27.9	27.7	27.6
9	43.2	40.5	38.0	35.1	33.3	33.0	32.4	31.7	31.4	30.7	29.9	29.7	29.0	28.7	29.3	29.5	30.1	29.3
14	232.9	192.8	133.7	69.3	52.8	50.7	51.9	57.2	63.6	56.3	52.2	51.5	43.3	40.2	43.4	45.1	45.0	40.8
19	446.7	398.5	305.5	223.7	211.8	190.8	162.1	142.4	134.7	98.0	80.9	71.6	53.5	54.3	55.5	55.3	53.7	46.1
24	498.6	482.2	401.8	319.0	312.1	274.5	263.0	250.2	227.5	165.6	107.5	102.5	68.9	69.4	65.9	61.6	59.6	48.7
29	563.2	538.6	455.1	374.7	341.2	311.7	307.8	292.0	271.5	195.8	126.0	110.7	81.8	84.5	70.7	65.6	61.1	51.4
34	697.2	611.1	524.3	425.7	382.9	364.5	353.6	345.0	324.2	277.3	209.0	118.0	90.0	87.0	83.2	77.0	74.5	61.0
39	659.1	584.7	517.3	448.3	422.0	384.7	382.9	369.8	350.4	313.3	254.6	128.0	94.9	102.1	96.3	79.2	75.6	66.0
44	561.9	509.8	465.2	423.3	406.1	396.9	388.9	376.4	356.7	326.2	269.9	145.0	108.0	92.0	96.1	83.2	75.2	67.0
49	543.8	503.2	458.8	433.0	407.2	382.1	381.8	377.1	365.8	341.6	295.2	169.6	109.4	94.5	87.2	82.0	72.6	68.0
54	557.0	488.5	440.6	391.3	380.4	376.1	370.3	363.6	353.7	337.8	295.9	174.8	100.7	100.5	88.1	83.1	77.9	74.6
59	511.1	477.2	446.6	394.8	389.9	378.7	367.5	360.8	352.4	333.0	309.3	219.5	100.3	97.0	91.4	90.3	83.3	75.4
64	564.3	498.9	474.7	418.9	399.5	386.4	371.3	366.2	350.7	341.0	319.9	240.8	113.1	103.1	91.5	85.6	81.5	75.0
69	525.9	468.3	458.5	424.9	404.8	390.8	383.6	382.0	370.7	342.8	327.9	260.0	107.2	102.4	95.0	87.9	83.0	74.5
74	509.4	459.3	427.5	415.3	400.2	386.0	371.2	367.5	358.6	340.7	288.8	249.0	126.3	113.2	101.0	87.7	81.0	77.5
79	499.7	457.4	463.9	450.1	426.9	417.7	387.8	382.9	375.5	364.1	344.0	308.7	141.8	108.5	100.4	89.6	86.4	81.9
84	556.9	486.4	492.3	464.8	438.2	421.2	400.5	387.7	378.9	361.9	340.3	283.7	144.8	122.0	103.5	93.6	90.0	88.5
89	513.5	478.7	478.9	460.8	442.6	423.4	404.7	393.7	383.8	365.2	335.3	257.9	144.2	126.5	111.1	97.8	92.1	87.6
94	523.5	475.8	477.3	458.6	449.9	430.2	416.5	400.7	389.9	363.8	325.0	254.6	152.6	128.9	109.6	95.8	92.6	88.7
99	478.6	458.1	462.9	465.6	461.6	455.6	418.0	404.8	398.3	378.0	335.2	257.6	144.2	135.4	113.3	100.0	92.7	87.3
104	498.4	463.3	473.4	468.0	455.8	434.0	414.8	402.0	383.5	364.3	329.2	266.7	161.8	137.8	116.5	96.6	94.2	91.7
109	514.7	464.1	471.8	468.4	454.5	438.7	418.9	400.9	389.5	376.7	341.0	287.4	150.4	147.3	122.7	105.0	99.8	91.0
114	512.3	482.7	491.2	478.2	462.5	437.5	419.8	400.4	383.3	365.4	328.6	244.8	163.5	154.1	138.2	114.7	98.7	95.3
119	488.4	462.4	470.9	465.0	454.5	441.3	410.8	391.1	375.9	351.7	301.7	233.0	182.1	163.5	138.8	118.1	113.4	96.4
124	536.6	502.6	521.6	530.4	523.6	505.6	455.2	417.7	409.4	387.5	345.8	282.0	225.6	230.1	168.9	147.9	160.6	153.7
129	475.6	464.5	468.0	460.8	441.8	420.7	416.5	396.0	363.7	306.7	268.2	249.7	207.0	203.5	174.1	166.6	149.1	123.5
134	573.1	493.1	493.6	481.8	465.5	445.1	412.6	394.5	384.9	364.7	347.9	327.5	262.0	183.7	152.1	147.7	142.8	117.7
139	635.5	544.7	510.9	481.6	456.9	427.4	426.7	450.3	437.2	402.3	374.1	309.6	260.2	221.6	166.5	132.4	138.7	123.1
144	573.3	548.0	530.7	503.0	500.6	489.8	501.9	523.0	498.3	460.9	448.9	446.2	424.4	385.1	288.1	215.8	161.7	135.9
149	688.7	559.6	540.5	523.2	507.9	496.9	460.5	437.7	420.0	407.5	391.8	341.0	242.2	245.1	196.9	149.0	121.7	115.5
154	495.2	473.5	473.3	465.2	449.4	436.1	427.6	422.0	410.7	386.4	364.8	341.5	255.2	216.4	174.3	131.8	120.3	117.3
159	483.2	450.2	446.6	441.9	429.8	413.8	406.9	402.3	399.9	391.0	373.8	283.8	225.6	205.8	180.7	148.2	135.1	120.3
164	589.3	518.5	513.7	489.1	477.9	458.0	423.9	405.8	397.0	349.8	289.3	254.7	212.7	194.8	178.7	164.1	155.7	138.0
169	579.2	511.6	515.4	491.6	471.6	448.8	424.2	411.9	399.7	370.1	334.1	297.0	232.9	178.3	149.2	125.0	115.2	110.8
174	496.8	465.1	465.5	461.4	460.9	460.7	433.0	414.7	397.3	386.6	367.5	312.5	207.5	180.1	147.8	123.0	112.2	112.3
179	497.5	469.6	467.1	463.1	455.1	445.0	419.3	409.4	398.9	378.9	355.3	325.3	225.5	179.3	159.5	140.9	124.7	113.8
184	576.6	509.9	539.2	531.7	534.1	490.0	462.6	453.0	455.1	431.2	361.3	277.8	195.9	192.4	164.2	136.1	123.8	122.2

Temperature measurements (°C), high flow burner experiment

time (s)	tree 1 tc 1	tree 1 tc 2	tree 1 tc 3	tree 1 tc 4	tree 1 tc 5	tree 1 tc 6	tree 1 tc 7	tree 1 tc 8	tree 1 tc 9	tree 1 tc 10	tree 1 tc 11	tree 1 tc 12	tree 1 tc 13	tree 1 tc 14	tree 1 tc 15	tree 1 tc 16	tree 1 tc 17	tree 1 tc 18
189	657.9	575.7	589.8	592.8	575.4	543.8	508.2	486.4	474.0	450.7	405.8	360.6	267.2	226.3	173.9	143.8	127.0	127.7
194	875.0	691.9	723.0	726.0	746.0	749.0	648.7	577.5	522.7	490.2	460.8	398.6	241.3	234.1	186.7	159.8	149.1	149.0
199	776.0	774.0	828.0	816.0	823.0	822.0	737.0	696.0	569.7	537.5	494.6	437.5	286.6	241.7	199.7	164.1	151.7	153.1
204	782.0	727.0	781.0	778.0	779.0	757.0	709.0	655.2	606.6	564.2	529.1	451.1	276.7	259.2	227.3	200.2	182.8	168.2
209	828.0	789.0	798.0	770.0	770.0	739.0	728.0	695.4	587.2	502.3	421.3	385.8	302.8	288.2	266.5	230.7	210.4	171.5
214	837.0	791.0	823.0	805.0	810.0	794.0	726.0	715.0	655.5	591.3	534.9	487.8	355.1	337.4	302.6	279.2	317.2	303.0
219	818.0	801.0	820.0	816.0	816.0	809.0	778.0	753.0	709.0	666.6	598.7	529.4	395.0	362.1	323.3	323.5	415.3	311.5
224	797.0	783.0	799.0	788.0	789.0	791.0	755.0	758.0	743.0	698.4	579.9	501.7	392.2	368.8	351.6	340.0	293.7	274.4

Temperature measurements (°C), high flow burner experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
-126	30.4	31.1	30.6	31.1	30.8	30.3	30.0	28.4	27.9	27.4	26.9	26.0	25.2	25.3	25.0	24.9	24.9	24.8
-121	30.4	31.3	30.7	31.2	31.0	30.5	30.1	28.5	27.9	27.4	27.0	26.3	25.3	25.2	25.0	24.9	25.0	24.8
-116	30.3	31.4	30.7	31.2	31.0	30.4	30.1	28.7	28.0	27.4	27.0	26.3	25.4	25.3	25.0	24.9	24.9	24.8
-111	30.3	31.2	30.7	31.0	30.9	30.5	29.9	28.7	28.0	27.4	27.0	26.2	25.4	25.3	25.1	24.9	25.0	24.8
-106	30.2	31.0	30.7	31.0	30.8	30.4	29.7	28.6	28.0	27.5	27.1	26.3	25.4	25.2	25.1	24.9	24.9	24.9
-101	30.4	31.2	30.7	31.0	30.8	30.5	29.7	28.6	28.0	27.6	27.0	26.5	25.4	25.3	25.0	24.9	25.0	24.9
-96	30.4	31.4	30.7	30.9	30.8	30.5	29.7	28.7	28.0	27.6	27.0	26.5	25.3	25.2	25.0	24.9	24.9	24.7
-91	30.4	31.5	30.8	30.9	30.8	30.5	29.6	28.6	28.1	27.6	27.0	26.4	25.3	25.2	24.9	24.9	24.9	24.7
-86	30.4	31.5	30.7	30.9	30.7	30.5	29.6	28.6	28.1	27.6	27.0	26.3	25.2	25.1	24.8	24.9	24.8	24.6
-81	30.3	31.5	30.8	31.0	30.7	30.6	29.5	28.5	28.1	27.7	27.1	26.5	25.4	25.2	24.9	24.9	24.8	24.7
-76	30.3	31.6	30.8	31.1	30.9	30.6	30.0	28.6	28.0	27.7	27.1	26.5	25.5	25.3	25.1	24.9	24.8	24.7
-71	30.4	31.4	30.8	31.0	30.9	30.7	30.4	29.7	28.5	27.7	27.1	26.5	25.7	25.4	25.1	25.0	24.8	24.7
-66	30.7	31.2	30.7	30.6	30.5	30.4	30.0	30.1	29.2	27.8	27.2	26.4	25.6	25.3	25.2	25.0	24.8	24.7
-61	30.7	31.0	30.7	30.7	30.6	30.3	30.1	29.8	29.0	27.6	27.0	26.2	25.5	25.3	25.2	25.1	24.9	24.7
-56	30.7	30.9	30.7	30.7	30.6	30.4	30.0	29.6	28.7	27.5	26.8	26.2	25.5	25.3	25.1	24.9	24.9	24.7
-51	30.8	30.9	30.7	30.6	30.5	30.2	28.7	27.6	27.8	26.8	26.5	26.2	25.6	25.5	25.3	25.2	24.9	24.7
-46	30.7	30.9	30.7	30.5	30.3	29.3	28.6	27.3	27.3	26.3	26.1	25.9	25.6	25.5	25.4	25.2	24.8	24.7
-41	30.6	30.9	30.7	30.3	29.9	29.1	28.2	27.1	27.2	26.4	26.2	26.0	25.7	25.6	25.5	25.4	24.9	24.7
-36	30.5	30.9	30.7	30.6	30.1	28.7	28.2	27.6	27.6	27.1	26.6	25.8	25.5	25.6	25.5	25.4	25.0	24.8
-31	30.4	31.1	30.7	30.6	30.4	30.2	28.6	28.1	27.6	27.3	26.2	25.6	25.6	25.6	25.4	25.4	25.0	24.9
-26	30.3	31.3	30.7	30.7	30.4	30.1	29.1	28.6	27.7	27.3	26.5	25.9	25.9	25.7	25.6	25.3	25.1	25.0
-21	30.3	31.4	30.8	31.0	30.6	30.1	29.3	28.6	28.0	27.5	26.7	26.2	25.9	25.8	25.5	25.3	25.1	24.9
-16	30.3	31.4	30.9	31.3	31.1	30.5	29.9	28.8	28.2	27.7	27.0	26.7	26.0	25.7	25.4	25.4	25.1	24.8
-11	30.5	31.1	30.9	31.4	31.3	31.0	30.1	29.3	28.3	27.9	27.3	27.3	26.4	25.7	25.4	25.3	25.1	24.8
-6	30.6	31.7	31.0	31.5	31.3	31.0	30.5	30.0	28.8	28.1	27.5	27.3	26.3	25.7	25.4	25.2	25.1	24.7
-1	30.6	32.0	31.1	31.5	31.3	31.0	30.8	30.1	28.9	28.0	27.4	26.9	26.0	25.5	25.3	25.2	25.0	24.7
4	30.5	32.0	31.0	31.3	31.2	31.0	31.0	30.2	29.0	28.1	27.2	26.5	25.5	25.4	25.0	25.1	24.9	24.7
9	30.4	31.8	31.1	31.5	31.2	31.0	31.0	30.4	29.2	28.1	27.3	26.8	25.9	25.4	25.1	25.1	25.0	24.8
14	30.6	32.0	31.2	31.9	31.5	31.1	31.0	30.6	29.5	28.6	27.9	27.3	26.5	25.9	25.4	25.3	25.3	24.9
19	52.4	85.4	43.2	70.2	57.9	45.5	37.3	35.0	32.0	31.9	29.8	30.4	29.0	27.5	26.7	25.6	25.3	25.0
24	100.7	180.3	78.5	165.5	141.5	102.7	85.0	80.8	73.3	60.7	53.1	57.1	43.3	33.2	31.9	29.4	27.0	25.4
29	138.6	224.5	107.4	210.0	195.4	182.5	167.9	164.3	142.7	99.7	64.7	50.7	39.3	32.1	29.0	28.2	26.9	25.8
34	145.5	255.3	133.7	225.1	206.5	196.0	186.6	193.8	172.1	130.4	80.1	43.9	36.2	32.5	30.1	29.1	27.5	26.2
39	170.5	290.1	171.7	281.6	262.2	244.5	228.5	233.0	208.2	165.7	112.9	49.0	36.1	32.7	30.5	30.0	28.2	26.8
44	194.7	307.4	196.4	277.5	262.3	247.4	243.2	244.2	224.9	189.3	136.0	63.0	36.5	32.6	30.9	30.0	29.3	27.1
49	190.4	310.4	216.3	287.5	267.4	255.4	251.9	243.5	217.4	188.6	146.5	51.6	35.9	33.7	30.4	29.8	30.3	27.5
54	183.6	298.5	231.9	297.2	284.3	268.6	257.1	238.3	221.6	199.0	156.1	63.1	37.9	34.4	31.4	30.5	31.3	27.8
59	194.0	298.0	241.8	278.4	265.5	256.2	248.8	240.3	230.3	203.2	164.2	85.0	38.9	33.9	32.0	30.9	32.0	27.7
64	186.6	270.8	249.0	288.8	276.6	262.1	255.4	246.4	231.2	203.4	169.5	79.1	37.3	34.3	31.0	30.0	32.0	27.6
69	189.6	289.3	255.8	289.7	272.3	257.5	250.8	241.0	229.1	209.5	173.1	76.9	37.6	35.5	30.9	30.6	32.6	27.8
74	182.4	285.6	260.6	289.6	275.8	259.8	252.4	237.8	221.7	206.3	171.5	61.3	35.8	36.2	31.5	30.9	32.4	28.6
79	190.0	289.6	265.8	291.9	272.2	258.0	249.2	240.0	229.3	205.5	173.5	96.3	37.9	35.7	32.8	31.1	32.6	28.9
84	195.0	304.0	271.4	295.9	276.4	261.1	252.4	247.7	238.2	218.4	189.7	148.9	63.8	37.6	33.8	32.3	33.0	30.1
89	207.0	281.3	273.4	292.5	283.9	274.4	265.3	266.5	251.9	224.2	188.8	161.7	62.1	39.7	33.2	32.7	33.7	30.5
94	198.1	305.5	278.0	297.9	275.7	257.2	253.9	255.2	241.8	220.7	186.6	130.1	56.2	39.5	33.1	33.5	35.3	30.2
99	202.7	298.2	276.5	281.8	266.5	257.2	248.8	246.2	236.8	215.6	184.2	138.9	54.7	39.5	34.0	33.7	35.2	30.6
104	201.2	297.5	280.0	294.3	279.5	265.2	255.5	252.7	241.8	224.9	195.1	169.8	60.6	40.5	36.1	35.2	36.4	30.9
109	198.3	289.9	279.6	291.5	284.2	268.1	245.2	243.0	228.5	211.8	186.5	160.9	83.3	44.6	35.2	35.3	36.3	31.8
114	203.6	303.6	283.9	296.4	278.8	266.8	256.9	253.2	235.4	217.2	191.3	162.6	78.7	44.1	36.8	36.9	36.6	32.3
119	213.9	301.3	284.3	288.4	275.8	258.8	253.8	255.0	245.3	222.1	194.4	159.8	79.4	43.6	38.6	37.7	37.3	32.5
124	200.1	289.3	282.2	285.9	275.0	259.0	252.9	246.2	238.7	222.1	192.7	164.4	66.4	42.6	37.1	36.6	37.7	32.9
129	196.0	298.0	285.8	298.4	279.6	259.4	255.6	254.3	234.5	220.6	201.6	168.5	86.9	46.1	37.2	36.3	37.2	32.6
134	210.3	293.5	285.1	291.9	273.6	260.1	252.5	250.7	239.1	224.2	207.7	174.8	74.8	44.5	38.6	37.0	37.7	32.8
139	201.5	289.6	284.7	286.6	272.2	260.8	248.1	245.1	236.6	224.2	198.3	188.8	92.8	47.7	38.6	38.8	38.2	32.4
144	212.7	319.2	287.5	294.0	274.3	267.4	262.1	261.1	245.3	228.9	202.4	151.8	75.5	48.4	39.5	39.1	38.0	32.5
149	212.9	309.6	290.4	307.1	292.5	276.8	261.0	250.9	240.6	231.3	209.5	177.3	89.1	47.1	37.7	37.2	38.2	33.1
154	212.0	302.2	291.2	307.4	293.8	279.7	266.8	267.7	253.6	228.6	207.7	191.0	101.3	46.4	38.6	37.8	39.4	33.3
159	200.0	286.2	288.5	291.8	280.9	268.0	261.9	259.9	251.6	238.7	224.1	181.1	80.0	46.3	40.0	38.5	39.6	33.3
164	210.3	298.9	288.9	292.0	276.9	268.3	259.3	260.5	250.5	235.9	226.0	213.9	92.0	48.0	39.4	38.3	40.3	33.9
169	214.2	293.4	288.9	296.5	282.1	263.7	256.2	256.4	244.2	232.4	213.2	186.9	86.1	47.9	39.2	38.6	39.7	34.1
174	207.3	296.4	289.5	299.0	285.7	268.2	256.6	254.4	240.3	226.4	207.9	195.4	92.9	48.4	39.3	39.1	40.1	35.1
179	211.1	303.6	289.9	298.4	282.1	271.2	256.7	253.8	243.8	224.0	199.0	186.4	110.2	48.8	40.4	39.4	40.2	34.3
184	229.9	327.2	297.0	323.4	306.9	282.1	271.6	267.5	254.3	233.7	212.4	196.2	107.9	49.1	40.6	40.7	42.2	35.1

Temperature measurements (°C), high flow burner experiment

time (s)	tree 2 tc 1	tree 2 tc 2	tree 2 tc 3	tree 2 tc 4	tree 2 tc 5	tree 2 tc 6	tree 2 tc 7	tree 2 tc 8	tree 2 tc 9	tree 2 tc 10	tree 2 tc 11	tree 2 tc 12	tree 2 tc 13	tree 2 tc 14	tree 2 tc 15	tree 2 tc 16	tree 2 tc 17	tree 2 tc 18
189	239.5	350.9	305.0	333.8	316.2	294.2	289.2	290.3	268.7	257.3	237.4	205.2	104.0	49.5	41.3	40.7	42.9	36.3
194	265.1	386.1	323.8	383.7	362.8	333.1	316.6	308.8	296.2	277.7	248.8	216.5	138.6	67.5	44.9	41.9	45.4	37.1
199	295.1	436.0	342.0	395.0	364.2	335.5	321.7	323.2	313.9	297.1	273.3	248.4	170.4	72.0	45.4	43.5	46.8	38.6
204	328.6	466.9	365.9	447.5	402.6	367.5	352.5	349.1	334.7	311.0	264.4	216.4	147.0	79.4	46.8	45.5	49.7	41.6
209	345.1	482.2	390.2	461.6	437.5	407.7	378.5	370.1	353.2	329.3	298.6	275.9	204.1	99.1	57.5	51.0	50.4	42.9
214	332.3	455.9	402.9	455.2	437.9	410.2	383.9	361.0	347.3	323.7	305.3	291.1	216.6	93.7	54.9	49.3	56.4	42.2
219	333.1	481.1	416.2	460.4	429.7	401.9	378.2	374.4	364.8	350.5	325.2	327.1	271.7	107.2	58.6	51.4	56.0	45.3
224	326.8	454.7	418.8	425.3	404.9	384.6	374.3	373.8	366.7	347.3	321.4	313.7	206.7	115.2	59.3	55.5	57.7	45.6

Temperature measurements (°C), high flow burner experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6
-126	27.7	27.2	26.8	26.3	26.1	25.4
-121	27.5	27.1	26.7	26.3	26.3	25.7
-116	27.6	26.9	26.6	26.3	26.2	25.7
-111	27.7	27.1	26.9	26.3	26.2	25.6
-106	27.8	27.1	26.8	26.3	26.2	25.6
-101	27.7	27.3	26.8	26.4	26.2	25.6
-96	27.6	27.2	26.8	26.4	26.2	25.6
-91	27.7	27.1	26.7	26.4	26.1	25.7
-86	27.6	27.2	26.7	26.4	26.2	25.8
-81	27.8	27.3	26.8	26.5	26.2	25.8
-76	28.0	27.2	26.9	26.5	26.2	25.8
-71	27.9	27.2	26.9	26.5	26.2	25.8
-66	27.7	27.1	26.8	26.5	26.1	25.8
-61	27.6	27.3	26.9	26.5	26.0	25.7
-56	27.6	27.3	27.0	26.6	26.0	25.7
-51	27.4	27.3	27.1	26.7	26.2	25.6
-46	27.3	27.3	27.3	27.0	26.6	25.8
-41	27.5	27.4	27.2	27.1	26.7	25.9
-36	27.4	27.3	27.2	27.0	26.6	25.7
-31	27.3	27.1	27.0	26.7	26.4	25.9
-26	27.3	26.9	26.9	26.7	26.4	26.0
-21	27.6	27.3	26.8	26.6	26.2	25.8
-16	27.4	27.0	26.7	26.3	26.1	25.8
-11	27.4	26.8	26.5	26.2	26.0	25.8
-6	27.3	27.1	26.8	26.3	25.9	25.7
-1	27.5	27.1	27.0	26.6	26.0	25.8
4	27.8	27.4	27.1	26.8	26.3	26.0
9	27.9	27.4	27.1	26.8	26.5	26.1
14	27.9	27.3	27.1	26.9	26.6	26.1
19	27.8	27.1	27.0	26.8	26.4	26.1
24	27.7	27.2	27.0	26.7	26.3	26.0
29	52.2	36.1	27.9	26.8	26.5	26.0
34	66.9	49.3	30.9	27.2	26.8	26.4
39	89.8	65.2	44.6	41.4	40.2	33.2
44	102.3	88.3	65.0	57.6	53.2	34.4
49	125.5	98.2	79.1	72.8	61.4	33.7
54	124.1	106.0	98.5	89.6	76.3	41.5
59	136.1	115.9	107.2	100.7	81.9	54.1
64	132.3	126.9	112.8	105.3	85.4	61.2
69	138.1	125.9	123.7	109.4	89.6	67.4
74	147.9	128.5	126.1	113.6	104.3	71.2
79	147.2	137.3	129.2	115.6	105.7	75.2
84	145.6	142.4	129.7	117.1	103.8	79.0
89	150.0	141.0	129.8	116.3	105.0	86.0
94	153.6	142.2	133.0	119.2	112.8	90.9
99	164.0	146.3	136.1	120.7	112.3	94.5
104	160.2	147.2	141.2	129.4	113.7	96.0
109	154.6	144.9	139.7	127.9	116.6	100.0
114	154.5	144.4	133.9	126.3	117.3	99.8
119	166.4	146.5	146.2	133.8	122.6	104.8
124	159.1	149.4	143.4	128.2	119.3	103.9
129	166.0	155.5	144.6	129.4	118.9	105.4
134	170.2	155.5	143.5	132.8	120.3	105.1
139	163.4	156.2	145.3	133.3	121.8	107.7
144	165.6	154.1	145.0	135.0	122.0	106.7
149	163.4	153.8	148.2	133.2	123.6	111.6
154	165.9	157.2	147.6	134.6	125.3	112.6
159	169.6	157.4	146.2	135.4	126.9	112.1
164	163.5	155.8	149.1	136.4	128.5	113.2
169	164.2	154.5	147.9	136.9	127.9	114.6
174	172.9	154.7	146.8	136.5	126.1	114.8
179	172.4	160.9	149.9	136.7	125.9	114.4

Temperature measurements (°C), high flow burner experiment

time (s)	tree 3 tc 1	tree 3 tc 2	tree 3 tc 3	tree 3 tc 4	tree 3 tc 5	tree 3 tc 6
184	174.9	161.9	153.0	140.8	127.4	113.7
189	175.2	169.3	156.1	142.5	129.6	118.0
194	177.1	166.9	157.6	145.7	134.6	118.9
199	190.5	178.3	167.0	148.8	134.4	123.8
204	199.0	186.9	177.9	161.1	141.0	127.6
209	215.2	188.8	179.1	159.6	145.8	134.8
214	217.4	197.9	176.5	163.4	154.3	140.9
219	214.0	199.8	193.9	179.2	162.2	145.2
224	229.2	207.5	198.9	171.8	164.8	149.8

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A series of fire experiments were conducted in vacant single family dwellings on South Bristol Street in Santa Ana, California. Fire experiments were conducted in bedrooms and living rooms. Fuels consisted of either home furnishings or a propane burner. Fire phenomena measured included: temperatures within various rooms, wall jet velocity, fuel mass during burning, heat flux smoke detector activation time, sprinkler activation time, oxygen concentration, and time to full room involvement.

KEY WORDS (MAXIMUM OF 9; 28 CHARACTERS AND SPACES EACH; SEPARATE WITH SEMICOLONS; ALPHABETIC ORDER; CAPITALIZE ONLY PROPER NAMES)

bedrooms, fire tests, furniture, home fires, single family dwellings, smoke detectors, sprinklers, temperature measurements

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