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NAT'L INST OF STANDARDS & TECH R.I.C.
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Fuhr, J. R/Bibliography on atomic line s
QC100.U57 NO.366, SUPPL.3, 197 C.1 NBS-P

NBS SPECIAL PUBLICATION 366

SUPPLEMENT 3

U.S. DEPARTMENT OF COMMERCE / National Bureau of Standards

Bibliography on Atomic Line Shapes and Shifts

(June 1975 through June 1978)

QC100
.U57
NO.366
SUPPL.3
1978
C.2

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[2]Some divisions within the center are located at Boulder, Colorado, 80303.

The National Bureau of Standards was reorganized, effective April 9, 1978.

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1978
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Bibliography on Atomic Line Shapes and Shifts

(June 1975 through June 1978)

J. R. Fuhr, B. J. Miller, and G. A. Martin

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National Bureau of Standards
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Issued December 1978

Library of Congress Catalog Card Number: 72-600147

National Bureau of Standards Special Publication 366 Supplement 3
Nat. Bur. Stand. (U.S.), Spec. Publ. 366 Suppl. 3, 83 pages (Dec. 1978)
CODEN: XNBSAV

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON: 1978

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402
Stock No. 003-003-02007-9 Price $2.75
(Add 25 percent additional for other than U.S. mailing).

Foreword

The National Standard Reference Data System was established in 1963 for the purpose of promoting the critical evaluation and dissemination of numerical data of the physical sciences. The program is coordinated by the Office of Standard Reference Data of the National Bureau of Standards but involves the efforts of many groups in universities, government laboratories, and private industry. The primary aim of the program is to provide compilations of critically evaluated physical and chemical property data. These tables are published in the *Journal of Physical and Chemical Reference Data*, in the NSRDS-NBS series of the National Bureau of Standards, and through other appropriate channels.

The task of critical evaluation is carried out in various data centers, each with a well-defined technical scope. A necessary preliminary step to the critical evaluation process is the retrieval from the world scientific literature of all papers falling within the scope of the center. Each center, therefore, builds up a comprehensive well-indexed bibliographical file which forms the base for the evaluation task. Bibliographies derived from these files are published when they appear to be of value to research workers and others interested in the particular technical area.

Further information on NSRDS and the publications which form the primary output of the program may be obtained by writing to the Office of Standard Reference Data, National Bureau of Standards, Washington, DC 20234.

David R. Lide, Jr., Chief
Office of Standard Reference Data

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BIBLIOGRAPHY ON ATOMIC LINE SHAPES AND SHIFTS (June 1975 through June 1978)

J. R. Fuhr, B. J. Miller, and G. A. Martin

This is the third supplement to the NBS Special Publication 366, *Bibliography on Atomic Line Shapes and Shifts (1889 through March 1972)*. It contains about 600 references and covers the literature from June 1975 through June 1978. As before, the bibliography contains five major parts: (1) All general interest papers are catalogued according to the broadening mechanisms (and, further, according to special topics under several of the mechanisms) and as to whether the work is a general theory, a general review, a table of profiles or parameters, a comment on existing work, a study of general experimental measurement techniques, or an experimental effort of general importance. Also included are selected papers on important applications of line broadening and on miscellaneous topics relating to atomic spectral line shapes and shifts. (2) In Part 2 all papers containing numerical data are ordered as to element, ionization stage, and broadening mechanism (in the case of foreign gas broadening the perturbing species are listed), and it is indicated whether the data are experimentally or theoretically derived. (3) While in the two preceding parts of the bibliography the references are listed for brevity by identification numbers only, in Part 3 all references are listed completely by journal, authors, and title and are generally arranged by year of publication and alphabetically by authors' names within the year. (4) This section contains a list of all authors and their papers. (5) A final section provides corrections or additions to the second supplement to the original bibliography.

Key words: Atomic; instrumental broadening; line shapes; line shifts; pressure broadening; resonance broadening; Stark broadening; van der Waals broadening.

A. INTRODUCTION

Since the publication of our latest *Bibliography on Atomic Line Shapes and Shifts (July 1973 through May 1975)*,[1] which is the second supplement to our original bibliography,[2] the number of articles containing numerical data, reviews, or comments of general interest has again increased sufficiently as to warrant a new supplement. The arrangement of the preceding bibliographies is generally retained. This third supplement, containing about 600 references, includes all new papers that were received in the NBS library before June 30, 1978. A few recently collected articles, which were published prior to 1975, are listed in Part 3 under the year of publication. Since we feel that our collection of articles for the year 1975 is now reasonably complete, all references for that year have been renumbered for this supplement and are listed here with the new numbers. As in the previous supplements, we have provided an errata section, consisting of corrections and additions to Supplement 2 to the original bibliography. References to English translations of previously cited Russian articles are also listed in this final section.

We would like to express our sincere thanks to Dr. D. E. Kelleher, who helped in the selection and classification of the articles.

[1] Fuhr, J. R., Martin, G. A., and Specht, B. J., Bibliography on Atomic Line Shapes and Shifts (July 1973 through May 1975), Nat. Bur. Stand. (U.S.), Spec. Publ. 366, Suppl. 2, 75 pages (Nov. 1975).

[2] Fuhr, J. R., Wiese, W. L., and Roszman, L. J., Bibliography on Atomic Line Shapes and Shifts (1889 through March 1972), Nat. Bur. Stand. (U.S.), Spec. Publ. 366, 165 pages (Sept. 1972).

TABLE OF CODE LETTERS AND ABBREVIATIONS

A. Description

1. T—theoretical method
2. E—experimental method
3. C—comment

B. Language

1. Czech.—Czech
2. Fr.—French
3. Ger.—German
4. Pol.—Polish
5. Russ.—Russian

B. BIBLIOGRAPHICAL MATERIAL

1. LITERATURE REFERENCES OF GENERAL INTEREST

1.0. GENERAL ARTICLES ON LINE SHAPES AND SHIFTS (GENERAL THEORIES AND COMMENTS, ETC.)

Theoretical paper: 2551

1.1. PRESSURE BROADENING

Comment: 2527

Theoretical papers: 2526,2528,2587,2626,2642,2664,2665,2721,2728,2780,2842, 2900,2910,2957,2965,3000,3013

1.1.1. Stark broadening and shifts

Comments: 2757,2758,2759,2849

Theoretical papers: 2540,2541,2542,2548,2587,2626,2668,2725,2726, 2744,2896,2936,2947,2992,3069,3080

Combined theoretical-comment: 2659

1.1.1.1. Hydrogen and hydrogen-like (overlapping) lines

Comment: 3077

Experimental paper: 2847

Theoretical papers: 2478,2539,2572,2574,2575,2606,2620,2836, 2856,2883,2913,2920,2984,2987,3065

1.1.1.2. Isolated lines of neutral spectra

Experimental paper: 2596

Theoretical papers: 2533,3061

1.1.1.3. Isolated lines of ionic spectra

Comments: 2468,2736

1.1.1.4. Topics of particular interest

A. Line wings

Comment: 2881

Experimental papers: 2670,2953

Theoretical paper: 2572

B. Effects of collective electric fields

Comment: 2649

Experimental papers: 2567,2738,2811

Theoretical papers: 2635,2673,2819,3072

C. Asymmetries of hydrogenic lines

Experimental papers: 2718,2994

Theoretical papers: 2851,2878

D. Microfield distributions

Theoretical papers: 2473,2540,2560,2631,2646,2656,2725,
2734,2790,2813,2841,2883,2936,2967,
3007,3008,3015

E. Magnetic fields

Theoretical paper: 2772

F. Turbulent plasmas

Experimental paper: 2809

Combined theoretical-comment: 2659

G. Ion dynamics of hydrogenic lines

Experimental paper: 3056

Theoretical papers: 2766,2913,2967

Combined theoretical-comment: 3070

H. Plasma polarization shifts

Comment: 3080

Experimental paper: 2847

I. Stark effect on states above the ionization threshold

Theoretical paper: 2775

J. Small field limit; fine structure

Experimental papers: 2582,3063

K. Relativistic effects

Theoretical paper: 2794

1.1.2. van der Waals broadening

Comments: 2545,2586

Theoretical papers: 2472,2546,2547,2579,2638,2773,2780,2816,2886,2888,
2993,3074

Combined theoretical-comment: 2814

1.1.2.1. Satellite bands

Experimental papers: 2593,2613,2667,2706,2935,3016

Theoretical papers: 2579,2665,2815,2840,3047,3066,3074

1.1.2.2. Polarization effects

Theoretical papers: 2812,2980,3001

1.1.2.3. Fine structure; hyperfine structure

Theoretical papers: 2519,2520,2822,2887

1.1.3. Resonance broadening

Comment: 2562

Theoretical papers: 2482,2544,2647,2648,2660,2681,2833,2834,2876,2965, 2976,3024

1.2. BASIC ARTICLES ON DOPPLER AND NATURAL LINE SHAPES

1.2.1. Doppler broadening and shifts

Comment: 2637

Experimental paper: 2749

Theoretical papers: 2524,2597,2616,2634,2654,2747,2777,2911,2938

1.2.2. Natural line broadening

No papers in this category.

1.2.3. Radiation induced broadening

Experimental papers: 2535,2675,2676,2740,2783,2793,2904,2918

Theoretical papers: 2474,2534,2606,2607,2617,2876,2877,2955

Combined theoretical-experimental: 3057

1.3. BASIC PAPERS ON INSTRUMENTAL BROADENING, DECONVOLUTION, SUPERPOSITION OF TWO OR MORE SIMULTANEOUSLY ACTING BROADENING MECHANISMS

1.3.1. Determination of instrumental line profiles; experimental techniques for determining line shapes

Experimental papers: 2118,2471,2477,2589,2592,2739,2787,2825,2903

Theoretical papers: 2465,2639,2722,2741,2765,2781,2835,2898,2962,3071

Combined theoretical-experimental: 1245,2114

1.3.2. Deconvolution

Theoretical papers: 2674,2741,2786,2797,2806,2824,2831,2839,2891,2898, 2962,3011,3060,3081

Combined theoretical-experimental: 2591,2961

1.3.3. Superposition of broadening mechanisms

Theoretical papers: 2544,2563,2597,2640,2641,2683,2732,2742,2747,2761, 2818,2843,2877,2906,2911,2927,2946,2970,2985,2988, 3048,3054,3067

1.3.4. Two-photon and saturation methods

Experimental paper: 2582

Theoretical papers: 2598,2720,2721

1.4. IMPORTANT LINE BROADENING APPLICATIONS

1.4.1. Laser & maser applications

Experimental papers: 2513,2535,2675,2676,2705,2738,2740,2783,2793, 2819,2828,2904,2918,2968,2998,3073

Theoretical papers: 2530,2534,2576,2606,2877,2887,2907,2955,2956, 2957,3014,3069

Combined theoretical-experimental: 2707,2717,2826,2850,2897,3057

1.4.2. Astrophysical applications

Comment: 2986

Experimental paper: 2743

Theoretical papers: 2577,2612,2621,2638,2808,2827,2831,2880,3012,3048, 3054

Combined theoretical-comments: 2708,3006

Combined theoretical-experimental: 2792

1.4.3. Plasma diagnostics

Experimental papers: 2305,2316,2317,2319,2464,2610,2611,2627,2662, 2670,2711,2713,2714,2718,2745,2752,2846,2902, 2912,2974,2995,2998,3021,3023,3059

Theoretical papers: 2600,2709,2751,2884

Combined theoretical-experimental: 2466,2717,2769,2832

1.4.4. Other applications

Combined theoretical-comment: 2557

1.5. OTHER TOPICS INVOLVING LINE SHAPES AND SHIFTS

1.5.1. The line shape in the presence of self-absorption; effects of radiative transfer

Theoretical papers: 2506,2524,2590,2625,2671,2843,2844

Combined theoretical-experimental: 2583,2949,2961

1.5.2. Broadening of scattered radiation

Experimental paper: 2555

Theoretical papers: 2524,2981

Combined theoretical-experimental: 2897

1.5.3. Some important papers on molecular line broadening

Theoretical papers: 2485,2568,2724,2728,2764,2829,2900,2921,2926,2932, 2946,2964,2971,3010,3052,3060

1.5.4. Miscellaneous topics

A. Broadening of x-ray lines

Experimental paper: 2853

B. Light shifts; relaxation

Experimental papers: 2511,2605,2918,3023

Theoretical papers: 2508,2554,2558,2905,2979

Combined theoretical-experimental: 2463,2509

C. Zeeman broadening

Experimental paper: 2937

Theoretical paper: 2577

D. New anomalous redshifts

Theoretical paper: 2799

1.6. REVIEW ARTICLES

1.6.1. General line broadening reviews: 2826

1.6.2. Reviews on pressure broadening: 2119,2306,2470,2528

1.6.2.1. Reviews on Stark broadening: 2480,2484,2578,2784,2785,2967

1.6.2.2. Reviews on foreign gas broadening: 2644

1.7. REFERENCES ON LINE BROADENING TABLES AND BIBLIOGRAPHIES

1.7.1. General line broadening tables: No papers in this category.

1.7.2. Pressure broadening tables: No papers in this category.

1.7.2.1. Special Stark broadening tables: 2515,2784,2785,2992

1.7.2.2. Special foreign gas broadening tables: 2733

1.7.3. Doppler and natural line broadening tables: 2911

1.7.4. Tables of Voigt functions: 2911,2927

1.7.5. Line broadening bibliographies: 2564

2. LITERATURE REFERENCES CONTAINING NUMERICAL DATA

(References on individual elements and stages of ionization, classified according to broadening mechanism)

Description	Reference No.*
Ag (Silver)	
Ag I	
van der Waals, E	2899 by Ar
	2899 by He
	2899 by Ne
	2899 by N_2
van der Waals, T,E	2674 by air-C_2H_2
Al (Aluminum)	
Al I	
Stark, E	2316,2923,3049
Stark, T	3050
van der Waals, E	2609 by C_2H_2-N_2O
Al II	
Stark, E	2923
Stark, T,E	2510
Al XIII	
Stark, E	3058
Stark, T	2778,3077
Ar (Argon)	
Ar I	
resonance, E	2704,2730
resonance, T,E	3018
Stark, E	2596,2958
Stark, T,E	2754,2805
van der Waals, E	2603,2704 by Ar
	2731 by He
van der Waals, T,E	3018 by Ar
Stark-Doppler-natural, E	2968
Ar II	
Stark, E	2881,2929
Ar III	
Stark, E	2479,2630,2881
Stark, T	2941
Ar IV	
Stark, E	2479,2630
Stark, T	2941
Ar XVIII	
Stark, T	2841,3077
B (Boron)	
B I	
van der Waals-Doppler, E	2762 by He
	2762 by Ne
	2762 by Ar
	2762 by Kr
	2762 by Xe

*The numbers refer to paper identification numbers of Part 3.

Description	Reference No.*
B II	
Stark, E	2975

Ba (Barium)

Description	Reference No.*
Ba I	
van der Waals, E	2609,2951 by air-C_2H_2
	2609 by C_2H_2-N_2O
	3068 by Kr
van der Waals, T,E	3068 by Xe
Ba II	
Stark, E	2922
van der Waals, E	2672 by Ar
	2672 by He
	2672 by Kr
	2672 by Ne
	2672 by Xe

Be (Beryllium)

Description	Reference No.*
Be III	
Stark, T	3004
(see also reference on He sequence)	
Be IV	
Stark, E	2610
Stark, T	2851,3004
Stark, T,E	3017

C (Carbon)

Description	Reference No.*
C I	
Stark, E	2753,2807,2982
van der Waals, T	2814 by H
C V	
Stark, T	2627
(see also reference on He sequence)	

Description	Reference No.*
C IV	
Stark, E	2998

Ca (Calcium)

Description	Reference No.*
Ca I	
Doppler, E	2817
instrumental, E	2817
line broadening, E	2817
Stark, E	2817
van der Waals, E	2609 by air-C_2H_2
	2609 by C_2H_2-N_2O
	2723,2743 by He
	2723 by Ne
van der Waals, T	2972 by He
	2972 by Ne
Stark-van der Waals, E	2817 by Na
Ca II	
Doppler, E	2817
instrumental, E	2817
line broadening, E	2817
Stark, E	2522,2817,2885, 2922
van der Waals, E	2885 by Ar
	2581 by He
van der Waals, T	2814 by H
	2570 by He
Stark-van der Waals, E	2817 by Na

Cd (Cadmium)

Description	Reference No.*
Cd I	
resonance, E	2584
van der Waals, E	2669 by Ar
	2802 by He
	2669 by NH_3

*The numbers refer to paper identification numbers of Part 3.

Description	Reference No.*
Cd II	
van der Waals, T,E	2850 by He

Cl (Chlorine)

Description	Reference No.*
Cl III	
Stark, E	2990
Stark, T	2939

Cr (Chromium)

Description	Reference No.*
Cr I	
van der Waals, E	2609 by C_2H_2-N_2O
	2314 by He

Cs (Cesium)

Description	Reference No.*
Cs I	
resonance, E	2959,2978,3016
resonance, T	2976
Stark, E	2801
van der Waals, E	2529,2658,2667, 2716,2804,2837, 2838,2890,2977 by Ar
	2716 by CF_4
	2618,3016 by Cs
	2716 by D_2
	2529,2667,2716, 2804,2890,3076 by He
	2716 by H_2
	2667,2804,2838 by Kr
	2529,2658,2667, 2716,2804,2837, 2890 by Ne
	2716 by N_2
	2593,2658,2667, 2798,2804,2838, 2908 by Xe
	2716 by hydrocarbons
van der Waals, T	1905,2309,2755, 2779,2823,3074 by Ar
	2925 by Cs
	1905,2779 by He
	1905,2755,2779, 2823 by Kr
	1905,2779 by Ne
	1905,2755,2779, 2780,2823,2925, 3047 by Xe
van der Waals, T,E	2969 by Xe

Cu (Copper)

Description	Reference No.*
Cu I	
Stark, E	2316
van der Waals, E	2623 by Ar
	2623 by Ne
van der Waals, T,E	2674 by air-C_2H_2
Cu II	
Stark, E	2316

F (Fluorine)

Description	Reference No.*
F I	
Stark, E	2997
F II	
Stark, E	2990
Stark, T	2939

Fe (Iron)

Description	Reference No.*
Fe I	
line broadening, T,E	2683
resonance, E	2663
Stark, E	2615,2663
van der Waals, E	2623 by Ar

*The numbers refer to paper identification numbers of Part 3.

Description	Reference No.*
	2663 by CO
	2663 by H
	2917 by He
	2623 by Ne
van der Waals, T	2561,2814 by H

Ga (Gallium)

Ga I

van der Waals, E	2609 by C_2H_2-N_2O

H (Hydrogen)

H I

Stark, E	2307,2308,2408, 2466,2483,2565, 2567,2585,2678, 2718,2768,2809, 2821,2934,2974, 2983,2994,2995, 3056,3063
Stark, T	2478,2481,2539, 2549,2550,2571, 2580,2620,2635, 2643,2661,2734, 2746,2813,2827, 2842,2856,2878, 2883,2884,2916, 2920,2936,2947, 2984,3007,3008, 3022,3065
Stark, T,C	2573,3070
Stark, T,E	2318,2651,2810
van der Waals, C	1903 by He
van der Waals, E	3009 by Ar
	3009 by He
van der Waals, T	2636 by Ar
	2928 by D
	1902,2116,2519, 2520,2636,2712 by He

Description	Reference No.*
van der Waals, T,E	2594 by Ar
	2594 by He
	2594 by Ne
Stark-Zeeman, T	2772

He (Helium)

He I

resonance, E	2730
resonance, T	3024
Stark, C	2650,2933
Stark, E	2514,2516,2552, 2553,2567,2585, 2735,2745,2752, 2819,2845,2854, 2889,2902,2914, 2954,3005,3025
Stark, T	2515,2517,2518, 2612,2653,2710, 2726,2882,3072
van der Waals, E	2730,2895 by He
Doppler-resonance, T	2732
Stark-Doppler, E	2953

He II

line broadening, T,E	2960
Stark, E	2567,2745,2752, 2811,2847,2848, 2879,2952
Stark, T	2575,2673,2756

He (Helium) Sequence

Stark, T	2548

Hg (Mercury)

Hg I

resonance, T,E	2569
Stark, E	2909

*The numbers refer to paper identification numbers of Part 3.

Description	Reference No.*
van der Waals, E	2538,2894,3051 by Ar
	2682 by Cd
	2525,2531,2894 by He
	2719,2894,2935 by Kr
	2682 by Mg
	2525,2531,2894 by Ne
	2525 by N_2
	2525,2719,2894 by Xe
	2682 by Zn
van der Waals, T	2115 by Ar
	2579 by Kr
van der Waals, T,E	2628 by Hg

I (Iodine)

I I

Description	Reference No.*
van der Waals, E	2624,2750,3073 by Ar
	2750 by CF_2Cl_2
	2750 by CF_3Br
	2750 by CO
	2624,2750 by CO_2
	2750 by C_3F_7I
	2624 by He
	2624 by Kr
	2624 by Ne
	2624,2750 by N_2
	2750 by SF_6
	2624 by Xe
	2750 by $(CF_3)_2CO$
van der Waals, T,E	2707 by Ar
	2707 by CF_3I
	2707 by CO_2
	2707 by C_3F_7I
	2707 by SF_6
	2707 by Xe

In (Indium)

In I

Description	Reference No.*
van der Waals, E	2543 by Ar
	2543 by He
	2310 by Hg

K (Potassium)

K I

Description	Reference No.*
resonance, E	2619
resonance, T	2976
Stark, E	2633,2820,2996
van der Waals, C	2748 by Ar
van der Waals, E	2507,2523,2556, 2715 by Ar
	2670 by CH_4-air
	2609 by C_2H_2-N_2O
	2523,2556,2715 by He
	2523,2556,2715 by Ne
	2507,2523,2715 by N_2
van der Waals, T	2645,2779,3002 by Ar
	2599,2645,2779, 3002 by He
	2779,3002 by Kr
	2779,3002 by Ne
	2779,3002 by Xe

Kr (Krypton)

Kr I

Description	Reference No.*
resonance, T	3024
resonance, T,E	2601
Stark, E	2596,2958,3064
van der Waals, T	2638 by Ar
	2638 by He

*The numbers refer to paper identification numbers of Part 3.

Description	Reference No.*
van der Waals, T,E	3053 by Ar
	3053 by He

Li (Lithium)

Li I

Stark, E	2243,2408,2996
Stark, T	2726,3019
van der Waals, E	2566,2655,3062 by Ar
	2566,2655,2830, 3062 by He
	2566,2655 by Kr
	2566,2655 by Ne
	2566,2655 by Xe
van der Waals, T	2779,3066 by Ar
	2519,2536,2779
	2972,3066 by He
	2779 by Kr
	2779,3066 by Ne
	2779 by Xe
van der Waals-Doppler, E	2973 by He
	2973 by Xe

Mg (Magnesium)

Mg I

resonance, E	2855
Stark, E	2791
Stark, T	2726
van der Waals, E	2919,3026 by Ar
	2791 by H
	2919,3026 by He
	3026 by Kr
	2855,3026 by Ne
	2919,3026 by Xe
van der Waals, T	2537 by He

Mg II

Stark, E	2791,2922
van der Waals, E	2791 by H
van der Waals, T	2537 by He

Mg XI

Doppler, E	2713
(see also reference on He sequence)	

Mg XII

Stark, E	2713,2714

Mo (Molybdenum)

Mo I

van der Waals, E	2609 by C_2H_2-N_2O

N (Nitrogen)

N I

resonance, E	2999
Stark, E	2763
Stark, T	2512,2737,3061
van der Waals, C	1903 by He
van der Waals, E	1906 by He
	1906 by Ne
	1906 by N_2
van der Waals, T	1246,1901 by He

N II

Stark, E	2632
Stark, T	2767,2942

N III

Stark, E	2632
Stark, T	2767

Na (Sodium)

Na I

resonance, E	2619
resonance, T	2976
Stark, E	2312,2633,2760, 2820,2885,2996

*The numbers refer to paper identification numbers of Part 3.

Description	Reference No.*
van der Waals, E	2523,2595,2680, 2715,2800,2885 by Ar
	2523,2559,2595, 2680,2715,2729, 2800 by He
	2915,2945 by H_2-O_2-Ar
	2945 by H_2-O_2-N_2
	2588,2595,2680, 2771,2800,3078 by Kr
	2523,2532,2595, 2680,2715,2800 by Ne
	2523,2715,2800 by N_2
	2595,2680,2800, 3078 by Xe
van der Waals, T	2638,2779,2796, 3066 by Ar
	2638,2644,2652 by H
	2311,2519,2536, 2599,2638,2645, 2679,2779,2796, 3066 by He
	2779 by Kr
	2779,2796,3066 by Ne
	2779,2796 by Xe
van der Waals, T,E	2893 by Ar
	2893 by He
	2893,3079 by Kr
	2893 by Ne
	2893,3079 by Xe

Ne (Neon)

Ne I

Description	Reference No.*
resonance, E	2730,2783
Stark, T,E	2770
van der Waals, E	2513,2731,2782, 3075 by He
	1904,2730,2782, 2852,3075 by Ne
van der Waals, T	2814 by H
van der Waals-Doppler, E	2705 by He

Ne II

Description	Reference No.*
Stark, E	2991

Ne X

Description	Reference No.*
Stark, T	2841,2851,3077

O (Oxygen)

O I

Description	Reference No.*
resonance, E	2999
Stark, T	2726
van der Waals, T	2814 by H

O II

Description	Reference No.*
Stark, E	2316,2629
Stark, T	2943

O III

Description	Reference No.*
Stark, E	2629
Stark, T	2943

P (Phosphorus)

P I

Description	Reference No.*
Stark, E	3020

Rb (Rubidium)

Rb I

Description	Reference No.*
line broadening, T,E	2961
resonance, E	2619,2677,2706
resonance, T	2944,2976

*The numbers refer to paper identification numbers of Part 3.

Description	Reference No.*
resonance, T,E	2362
Stark, E	2963,2996
van der Waals, E	2117,2309,2469, 2521,2523,2608, 2622,2666,2667, 2715,2788,2795, 2804 by Ar 2521 by CH_4 2469,2523,2608, 2622,2667,2715, 2788,2795,2804 by He 2117,2309,2469, 2521,2608,2622, 2666,2667,2776, 2795,2804,2838, 2948 by Kr 2117,2469,2521, 2523,2608,2622, 2666,2667,2715, 2795,2804 by Ne 2521,2523,2715, 2788,2789 by N_2 2117,2309,2467, 2469,2608,2622, 2667,2795,2804, 2838 by Xe
van der Waals, T	1905,2638,2755, 2773,2779,2823, 2944,3003 by Ar 1905,2638,2645, 2773,2779,3003 by He 1905,2755,2779, 2823,3003 by Kr 1905,2602,2657, 2755,2773,2779, 3003 by Ne 1905,2755,2779, 2823,2892,3003 by Xe

Description	Reference No.*
van der Waals, T,E	2931 by Xe

Si (Silicon)

Si I

van der Waals, T	2814 by H

Si II

Stark, E	2604,2966
Stark, T	2940

Si III

Stark, E	2989

Si IV

Stark, E	2989

Sr (Strontium)

Sr I

van der Waals, E	2609,2951 by air-C_2H_2 2950 by Ar 2945 by CO-N_2O 2609 by C_2H_2-N_2O 2950 by H_2O
van der Waals, T,E	2949 by air-C_2H_2 2897 by Ar

Sr II

Stark, E	2922
van der Waals, T	2814 by H 2570 by He

Ti (Titanium)

Ti I

van der Waals, E	2609 by C_2H_2-N_2O

*The numbers refer to paper identification numbers of Part 3.

Description	Reference No.*

Tl (Thallium)

	Tl I
Doppler, E	2787
resonance, E	2613
van der Waals, E	2901 by Ar
	2901 by He
	2310 by Hg
	2901 by Kr
	2901 by Ne
	2857 by Tl
	2613,2803,2901 by Xe

Xe (Xenon)

	Xe I
resonance, T,E	2601
Stark, E	2596,2958
Stark, T	2930
van der Waals, E	2774 by He
	2727,2774 by Xe
van der Waals, T	2930 by Xe
van der Waals, T,E	3055 by Xe

Zn (Zinc)

	Zn I
resonance, C	2614
van der Waals, E	2476 by He
	2476 by Xe

*The numbers refer to paper identification numbers of Part 3.

3. CHRONOLOGICAL LISTING OF ALL REFERENCES WITH FULL TITLES

1967

1245. V. Kapicka, Influence of the Apparatus Function on the Determination of the Width of a Spectral Line, Publ. Fac. Sci. Univ. J. E. Purkyne, Brno, Tchecoslovaquie 484, 289. (Czech.)

1968

1246. J. D. Lyons, S. Ray, & T. P. Das, Hyperfine Pressure Shift and van der Waals Interaction. II. Nitrogen-Helium System, Phys. Rev. 174, 112; 181, 465 (1969).

1901. S. Ray & T. P. Das, Short-Range Effects on the Pressure Shift for a Nitrogen Atom in a Rare-Gas Atmosphere, Phys. Rev. 174, 32; 181, 465 (1969).

1902. S. Ray, J. D. Lyons, & T. P. Das, Hyperfine Pressure Shift and van der Waals Interactions. I. Hydrogen-Helium System, Phys. Rev. 174, 104; 181, 465 (1969).

1969

1903. B. K. Rao & T. P. Das, Hyperfine Pressure Shift and van der Waals Interaction. III. Temperature Dependence, Phys. Rev. 185, 95.

1970

1904. A. P. Makarov, Measurement of the Broadening of Neon Spectral Lines by the Absorption Method, "Voprosy Fiziki Nizkotemperaturnoi Plazmy," 95-98 ("Nauka i Tekhnika," Minsk). (Russ.)

1905. A. I. Okunevich & V. I. Perel', Relaxation in the Sublevel System of the Excited State of Alkali Metal Atoms Colliding with Noble Gas Atoms, Sov. Phys.--JETP 31, 356.

1906. R. E. Weiss, R. H. Lambert, & L. C. Balling, Temperature Dependence of Hyperfine Pressure Shifts. II. Nitrogen in Helium, Neon, and Molecular Nitrogen, Phys. Rev. A 2, 1745.

1971

2114. V. Kapicka & L. Pencikova, Determination of the Apparatus Function of a Fabry-Perot Interferometer, Scr. Fac. Sci. Nat. Univ. Purkynianae Brun. 1, 33. (Czech.)

1972

2115. W. Behmenburg, A New Optical Method for the Determination of Interatomic Potentials, Z. Naturforsch., Teil A 27, 31.

2116. W. D. Davison & Y. C. Liew, A Calculation of the Interaction Potential and Hyperfine Shift in HeH, J. Phys. B 5, 309.

2117. H. Fukuyo, K. Iga, & N. Kuramochi, Spectral Characteristics of Rb^{87} Lamps Containing Different Carrier Gases, Bull. Tokyo Inst. Technol. No. 113, 67.

2118. V. Kapicka & Z. Vosicky, Influence of Doppler Broadening on the Accuracy for Determining the Apparatus Function of Fabry-Perot's Interferometer, Scr. Fac. Sci. Nat. Univ. Purkynianae Brun. 2, 95.

2119. H. van Regemorter, Spectral Line Broadening, "Atoms and Molecules in Astrophysics," 85-119 (Eds., T. R. Carson & M. J. Roberts, Academic Press, London).

1973

2243. V. G. Mikhalev, S. N. Ogorodnikov, & V. G. Pankratov, Some Characteristics of Widening of Spectral Lines of Lithium, J. Appl. Spectrosc. (USSR) 18, 103.

2305. V. A. Abramov, R. P. Vasil'eva, & M. I. Pergament, Spectroscopic Measurements of Plasma Parameters in a Coaxial Injector, "Diagnostika Plazmy," No. 3, 27-31 (Atomizdat Moskva). (Russ.)

2306. W. Behmenburg, On the Determination of Interatomic Forces from the Profiles of Pressure Broadened Spectral Lines, Ann. Univ. Sarav., Math.-Naturwiss. Fak. No. 10, 11-208. (Ger.)

2307. K. Behringer & W. R. Ott, Measurement of the Ly-α Stark Profile in a Pure Hydrogen Arc, Contrib. Pap.--Int. Conf. Phenom. Ioniz. Gases, 11th, 396 (Ed., I. Stoll, Czech. Acad. Sci., Inst. Phys., Prague, Czech.).

2308. I. A. Bez'yazychnyi, E. V. Lifshii, A. K. Berezin, A. M. Artamoshkin, & A. V. Petukhov, Use of a Double Electron-Optical Transducer for Studying a Pulsed Plasma-Beam Discharge, "Diagnostika Plazmy," No. 3, 59-63 (Atomizdat Moskva). (Russ.)

2309. C. G. Carrington, D. Drummond, A. Gallagher, & A. V. Phelps, Oscillations in Continuum Molecular Spectra of Alkali-Metal--Noble-Gas Molecules, Chem. Phys. Lett. 22, 511.

2310. W. Funk & H.-G. Kloss, Broadening of Thallium and Indium Resonance Lines by Mercury, Contrib. Pap.--Int. Conf. Phenom. Ioniz. Gases, 11th, 400 (Ed., I. Stoll, Czech. Acad. Sci., Inst. Phys., Prague, Czech.).

2311. S. A. Kandela, On the Spectral Line Broadening by High Temperature Neutral Perturbers, Bull. Coll. Sci., Univ. Baghdad 14, 31.

2312. D. Leteinturier, J.-C. Valognes, & P. Mergault, Spectrographical Analysis of the Light Emitted by the Anodic Plasma During Anode Effect in Molten Cryolite Electrolysis, Electrochim. Acta 18, 995.

2314. G. Pujol & S. Weniger, Collision Broadening and Shift in the Chromium Multiplet ($a\ ^7S - y\ ^7P^o$), Contrib. Pap.--Int. Conf. Phenom. Ioniz. Gases, 11th, 399 (Ed., I. Stoll, Czech. Acad. Sci., Inst. Phys., Prague, Czech.).

2315. G. V. Sholin, V. S. Lisitsa, & V. I. Kogan, Effect of the Thermal Movement of Ions on the Stark Broadening of Spectral Lines in Plasma, "Diagnostika Plazmy," No. 3, 32-40 (Atomizdat Moskva). (Russ.)

2316. M. A. Sultanov & V. A. Ageev, Determination of Dense-Plasma Temperature According to the Shift of Spectral Lines, Dokl. Akad. Nauk Tadzh. SSR 16, No. 7, 26. (Russ.)

2317. V. A. Vershkov, Ya. R. Rakhimbabaev, O. A. Zinov'ev, V. D. Rusanov, & A. V. Titov, Experimental Determination of Turbulent-Plasma Parameters According to the Stark Broadening of Spectral Lines, "Diagnostika Plazmy," No. 3, 55-59 (Atomizdat Moskva). (Russ.)

2318. S. P. Zagorodnikov, G. E. Smolkin, E. A. Striganova, & G. V. Sholin, Measurement of the Turbulence Level of Electrostatic Vibrations in a Collisionless Plasma According to the Stark Broadening of Spectral Hydrogen Lines by a High-Speed Electron Optical Spectrochronographic Method, "Diagnostika Plazmy," No. 3, 45-55 (Atomizdat Moskva). (Russ.)

2319. E. K. Zavoiskii, Yu. G. Kalinin, D. N. Lin, V. D. Ryutov, V. A. Skoryupin, & V. V. Shapkin, Measurement of Electric Fields in a Turbulent Plasma by Stark Broadening of Hydrogen Lines, "Diagnostika Plazmy," No. 3, 41-44 (Atomizdat Moskva). (Russ.)

1974

2362. A. Gallagher & E. L. Lewis, Resonance Broadening of Hanle-Effect Signals in Rubidium, Phys. Rev. A 10, 231; 16, 1337 (1977).

2408. V. G. Mikhalev, S. N. Ogorodnikov, & V. G. Pankratov, Determination of Electron Density from the Intensity of Forbidden Transitions in Lithium Plasmas, J. Appl. Spectrosc. (USSR) 20, 673.

2463. E. I. Alekseyev, E. N. Bazarov, & V. P. Gubin, Light Shifts in a Frequency Standard with a Rubidium Cell in the Presence of Spatial Separation of the Optical Pumping and Interaction with the Microwave Field, Radio Eng. Electron. Phys. (USSR) 19, 58.

2464. S. V. Antipov, M. V. Nezlin, E. N. Snezhkin, A. S. Trubnikov, & I. F. Khanov, A Ten-Channel Polychromator for Studying the Shape of the Spectral Lines of a Nonstationary Plasma, Instrum. Exp. Tech. (USSR) 17, Part 2, 852.

2465. V. M. Arkhipov & V. A. Rozuvanova, Calculation of the Apparatus Functions of S.I.S.A.M. Spectrometers for Finite Values of the Entrance Apertures, Sov. J. Opt. Technol. 41, 269.

2466. M. V. Babykin, A. I. Zhuzhunashvili, E. A. Oks, V. V. Shapkin, & G. V. Sholin, Polarization Spectroscopic Analysis of Noise Produced in a Turbulent Plasma Upon Annihilation of Oppositely Moving Magnetic Fields, Sov. Phys.--JETP 38, 86.

2467. C. G. Carrington & A. Gallagher, Teratomic Recombination of Excited RbXe, J. Chem. Phys. 60, 3436.

2468. M. S. Dimitrijevic, P. Grujic, & N. Konjevic, On the Stark Broadening Theory of Singly Ionized Atoms, "Physics of Ionized Gases 1974: Contributed Papers," 249-252 (Rovinj, Yugoslavia).

2469. D. L. Drummond & A. Gallagher, Potentials and Continuum Spectra of Rb-Noble Gas Molecules, J. Chem. Phys. 60, 3426.

2470. W. R. Hindmarsh, Line Width and Line Broadening, "Atoms, Molecules and Lasers," 133-173 (International Atomic Energy Agency, Vienna).

2471. V. Kapicka, Measuring the Broadening of Spectral Lines Using the Fabry-Perot Interferometer, Prac. Konf. Cesk. Fyz., [Pr.], 3rd, 1973 (Pub. 1974), 135-136 (Ed., M. Matyas, Academia: Prague, Czech.). (Czech.)

2472. A. P. Kazantsev, Collision of Highly Excited Atoms, Opt. Spectrosc. (USSR) 37, 589.

2473. G. A. Koval'skaya & V. G. Sevast'yanenko, Effect of Statistical Microfields in Plasma on the Photoionization of Hydrogen Atoms, Aerofiz. Issled. No. 3, 7. (Russ.)

2474. V. S. Lisitsa & S. I. Yakovlenko, Optical and Radiative Collisions, Sov. Phys.--JETP 39, 759.

2476. A. A. Misiunas & V. K. Norkunas, A Linear Absorption Study of the Width of the 3075.9 Å Line of ^{64}Zn, Sov. Phys.--Collect. 14, No. 5, 45.

2477. A. M. Nemets, G. I. Nikolaev, & V. G. Flisyuk, Calculation of Some Parameters of Spectral Lines in Measurement of Broadening and Optical Density of Metal Vapors by the Atomic Absorption Method, J. Appl. Spectrosc. (USSR) 21, 1003.

2478. E. A. Oks & G. V. Sholin, Stark Profiles of Hydrogen Balmer Lines from an Isotropic Spectrum of Low Frequency Electrostatic Noise in a Turbulent Plasma, Ordena Lenina Institut Atomnoi Energii im. I. V. Kurchatova IAE 2391. (Russ.)

2479. M. Platisa, M. Popovic, M. Dimitrijevic, & N. Konjevic, Stark Broadening of Ar III and Ar IV Lines, "Physics of Ionized Gases 1974: Contributed Papers," 245-248 (Rovinj, Yugoslavia).

2480. J. Puric, Lj. Cirkovic, & J. Labat, Regularities in Stark Broadening Parameters, Fizika (Zagreb) 6, 211.

2481. V. V. Rozhkov, Frequency Shift of Hydrogen Spectral Lines Emitted by a Dense Plasma, Tr. Metrol. Inst. SSSR No. 164, 37. (Russ.)

2482. M. L. Strekalov, Resonant Excitation Transfer in Collisions of Identical Atoms, Sov. Phys.--Dokl. 19, 767.

2483. G. L. Weissler, Vacuum UV Spectroscopy with Plasma Arcs, "Vacuum Ultraviolet Radiation Physics," 59-61 (Eds., E.-E. Koch, R. Haensel, & C. Kunz, Pergamon-Vieweg, Braunschweig, West Germany).

2484. W. L. Wiese, Experimental Progress on Plasma Broadening of Hydrogen Balmer Lines, "Physics of Ionized Gases 1974," 637-673 (Ed., V. Vujnovic, Institute of Physics, University of Zagreb, Zagreb, Yugoslavia).

2485. V. E. Zuev, S. D. Tvorogov, & V. V. Fomin, Theory of the Broadening of Spectral Lines and Formation of the Absorption Band Contour, Prikl. Spektrosk., Sb. Obz. Dokl. Vses. S'ezda Spektrosk., 17th, 1971, 41-66 (Ed., A. A. Yankovskii, Akad. Nauk Beloruss. SSR, Inst. Fiz., Minsk, USSR). (Russ.)

1975

2506. R. Abjean & M. Leriche, On the Shape of Absorption Lines in a Divergent Atomic Beam, Opt. Commun. 15, 121.

2507. E. B. Aleksandrov, S. L. Izotova, A. B. Mamyrin, & M. S. Frish, Shaping Line Contours for Optical Pumping of the Resonance Lines of Potassium, Opt. Spectrosc. (USSR) 38, 466.

2508. E. I. Alekseev & E. N. Bazarov, Light-Induced Shifts of a Quantum Frequency Standard with Optical Pulse Pumping and Optical Display of a Ramsey Line with Suppressed Side Maxima, Sov. J. Quantum Electron. 5, 563.

2509. E. I. Alekseev, E. N. Bazarov, & G. I. Telegin, Light Shifts in a Quantum Frequency Standard with Pulsed Optical Pumping and Optical Indication of the Ramsey Structure of the 0-0 Transition Line of Rb^{87} Atoms, Radio Eng. Electron. Phys. (USSR) 20, No. 4, 73.

2510. A. W. Allen, M. Blaha, W. W. Jones, A. Sanchez, & H. R. Griem, Stark-Broadening Measurement and Calculations for a Singly Ionized Aluminum Line, Phys. Rev. A 11, 477.

2511. M. Arditi & J.-L. Picque, Precision Measurements of Light Shifts Induced by a Narrowband GaAs Laser in the 0-0 ^{133}Cs Hyperfine Transition, J. Phys. B 8, L331.

2512. L. A. Babenya, Absorption Coefficients of Spectral Lines of Nitrogen in an Air Plasma, J. Appl. Spectrosc. (USSR) 22, 158.

2513. V. A. Balakin, I. P. Konovalov, & E. D. Protsenko, Measurement of the Spectral Characteristics of the 3.3912 μ ($3s_2$-$3p_2$ Ne) Line, Sov. J. Quantum Electron. 5, 581.

2514. G. Baravian, J. Bretagne, J. Godart, & G. Sultan, Study of the 4471 Å and 4922 Å Lines in the Afterglow of a Helium Plasma Produced by Laser, Z. Phys. B 20, 255.

2515. A. J. Barnard, J. Cooper, & E. W. Smith, Stark Broadening Tables for He I λ 4922 Å, J. Quant. Spectrosc. Radiat. Transfer 15, 429.

2516. A. J. Barnard & D. C. Stevenson, Measurement of the He I 4471 Å Profile at an Electron Density of 10^{15} cm^{-3}, J. Quant. Spectrosc. Radiat. Transfer 15, 123.

2517. J. M. Bassalo & M. Cattani, Quantum Mechanical Calculations for the Electron Impact Broadening and Shift of Some Lines of Neutral Helium in a Hot Plasma, Can. J. Phys. 53, 2285.

2518. J. M. Bassalo, Y. Yamamoto, & M. Cattani, Quantum Mechanical Calculations for the Electron Impact Broadening and Shift of the Line $4^3s \rightarrow 2^3p$ of Helium in a Hot Plasma, Can. J. Phys. 53, 683.

2519. Vl. V. Batygin, Vit. V. Batygin, Yu. G. Guzhva, & A. N. Ivanov, Theory of Shifts and Broadening of Hyperfine Transition Lines of an Atom in a Medium of Buffer Gases, Tr. Leningr. Politekh. Inst. No. 344, 105. (Russ.)

2520. Vl. V. Batygin, N. A. Lapuk, & B. G. Matisov, Theoretical Study of a Line Shift in the Hyperfine Structure of Hydrogen Atoms in a Helium Atmosphere, Tr. Leningr. Politekh. Inst. No. 344, 99. (Russ.)

2521. Vl. V. Batygin & V. S. Zholnerov, Temperature Dependence of the Hyperfine Transition Frequency of the Ground State of Rb^{87} in a Buffer Medium, Opt. Spectrosc. (USSR) 39, 254.

2522. J. F. Baur & J. Cooper, A Measurement at Low Temperature of the Stark Broadened 3968 Å Line of Ionized Calcium, Phys. Lett. A 54, 457.

2523. B. L. Bean & R. H. Lambert, Temperature Dependence of Hyperfine Density Shifts. III. ^{23}Na, ^{39}K, and ^{85}Rb in He, Ne, Ar, and N_2, Phys. Rev. A 12, 1498.

2524. Y. Ben-Aryeh & M. Mayseless, Resonant Propagation of Coherent Pulses in a Gas with Doppler Broadening, J. Quant. Spectrosc. Radiat. Transfer 15, 411.

2525. Z. Ben-Lakhdar-Akrout, J. Butaux, & R. Lennuier, Experimental Study of the Mercury 4047 Å Line ($6\ ^3P_0 - 7\ ^3S_1$) Absorption Profile in the Presence of Foreign Gases, J. Phys. (Paris) 36, 625.

2526. A. Ben-Reuven, Spectral Line Shapes in Gases in the Binary-Collision Approximation, "Advances in Chemical Physics," Vol. 33, 235-293 (Eds., I. Prigogine & S. A. Rice, John Wiley and Sons, New York).

2527. P. R. Berman, Effects of Phase-Interrupting and Velocity-Changing Collisions on Spectral Line Formation, Comments At. Mol. Phys. 5, 19.

2528. P. R. Berman, Theory of Collision Effects on Atomic and Molecular Line Shapes, Appl. Phys. 6, 283.

2529. E. Bernabeu & F. Garcia-Peralta, Pressure Effects of Helium, Neon, and Argon on the Hyperfine Structure of the First Doublet of Cesium, "Seventh EGAS Conference--Summaries of Contributions," No. 67 (Grenoble, France).

2530. R. E. Beverly III, Pressure-Broadened Iodine-Laser-Amplifier Kinetics and a Comparison of Diluent Effectiveness, Opt. Commun. 15, 204.

2531. K. A. Bikmukhametov, V. M. Klement'ev, & V. P. Chebotaev, Experimental Investigation of the Dependences of the Collision Broadening and Shift of the Emission Line of a Mercury Laser on He and Ne Pressures, Sov. J. Quantum Electron. 5, 278.

2532. F. Biraben, B. Cagnac, & G. Grynberg, Shift and Broadening of the 3S-4D Two-Photon Transition in the Sodium Atom by Collision with Neon Atoms, J. Phys. Lett. (Paris) 36, L-41. (Fr.)

2533. V. I. Boiko, Electron Broadening of Overlapping Spectral Lines, Sov. Phys.--JETP 41, 425.

2534. L. T. Bolotskikh & A. K. Popov, Spectral Line Profile of an Inhomogeneously Broadened Transition in the Presence of a Strong Field that Homogeneously Broadens an Adjacent Transition, Opt. Spectrosc. (USSR) 38, 329.

2535. M. P. Bondareva, Yu. M. Kirin, S. G. Rautian, V. P. Safonov, & B. M. Chernobrod, Radiative Perturbation of the 4P, 4S Levels of Potassium Atoms in a Strong Field, Opt. Spectrosc. (USSR) 38, 121.

2536. C. Bottcher, T. E. Cravens, & A. Dalgarno, Collision Broadening and Relaxation of the Resonance Lines of Lithium and Sodium in Helium Gas, Proc. R. Soc. London, Ser. A 346, 157.

2537. C. Bottcher, K. K. Docken, & A. Dalgarno, Collision Broadening of Mg^+ and Mg by He, J. Phys. B 8, 1756.

2538. C. Bousquet, N. Bras, & R. Lennuier, Broadening and Shift of the Mercury 1849 Å Absorption Line in the Presence of Argon, J. Phys. (Paris), Lett. 36, L-233. (Fr.)

2539. M. Caby-Eyraud, G. Coulaud, & Nguyen-Hoe, Contribution of Strong Interactions to the Wings of Hydrogen Lines Broadened by the Charged Particles in Plasmas, J. Quant. Spectrosc. Radiat. Transfer 15, 593.

2540. H. Capes & D. Voslamber, Ion-Electron Correlations in Stark Broadening, "Proceedings of the Twelfth International Conference on Phenomena in Ionized Gases, Eindhoven, The Netherlands, Part 1: Contributed Papers," 260 (Eds., J. G. A. Hölscher & D. C. Schram, North-Holland, Amsterdam).

2541. H. Capes & D. Voslamber, Plasma Correlation Effects on Stark Broadening, Z. Naturforsch., Teil A 30, 913.

2542. M. Cattani, Overlapping Lines. Quantum Mechanical Treatment for the Electron Collisions, Phys. Lett. A 54, 483.

2543. S. Y. Ch'en & W. H. Frandsen, Pressure Broadening and Shift of the First Diffuse Series Doublet of Indium Due to the Presence of Helium and Argon, J. Quant. Spectrosc. Radiat. Transfer 15, 341.

2544. J. Cooper & D. N. Stacey, Correlations Between Doppler and Pressure Broadening for the Resonance Interaction, Phys. Rev. A 12, 2438.

2545. G. Das, Variational Principle Applied to Hyperfine Pressure Shifts, Phys. Rev. A 12, 335.

2546. E. I. Dashevskaya & E. A. Kobzeva, Approximate Calculation of Cross Sections for Spectral Line Broadening and Shift, Opt. Spectrosc. (USSR) 39, 350.

2547. R. W. Davies, Many-Body Treatment of Pressure Shifts Associated with Collisional Broadening, Phys. Rev. A 12, 927.

2548. J. Davis & V. L. Jacobs, Effects of Plasma Microfields on Radiative Transitions from Atomic Levels Above the Ionization Threshold, Phys. Rev. A 12, 2017.

2549. A. V. Demura, V. S. Lisitsa, & G. V. Sholin, On the Ion Motion Effect in Stark Profiles of Hydrogen Lines in a Plasma, "Proceedings of the Twelfth International Conference on Phenomena in Ionized Gases, Eindhoven, The Netherlands, Part 1: Contributed Papers," 37 (Eds., J. G. A. Hölscher & D. C. Schram, North-Holland, Amsterdam).

2550. A. V. Demura & G. V. Sholin, Theory of the Asymmetry of Stark Profiles of Hydrogen Lines in a Dense Plasma, J. Quant. Spectrosc. Radiat. Transfer 15, 881. (Russ.)

2551. M. W. C. Dharma-wardana, The Absorption of Light by Hydrogenic Plasmas I., J. Phys. B 8, 2728.

2552. C. S. Diatta, A. Czernichowski, & J. Chapelle, Measurement of Stark Broadening and Shift of the Helium I Line λ = 4471.5 Å and Its Forbidden Component λ = 4470 Å for Electron Densities $7 \cdot 10^{14} \lesssim N_e\ [cm^{-3}] \lesssim 3 \cdot 10^{16}$, Z. Naturforsch., Teil A 30, 900.

2553. C. S. Diatta, A. Czernichowski, & J. Chapelle, Measurement of Stark Broadening and Shift of the Helium I Line λ = 4922 Å and Its Forbidden Components, "Proceedings of the Twelfth International Conference on Phenomena in Ionized Gases, Eindhoven, The Netherlands, Part 1: Contributed Papers," 367 (Eds., J. G. A. Hölscher & D. C. Schram, North-Holland, Amsterdam).

2554. A. Di Giacomo & F. Feo, Radiative and Relaxation Effects on Line Shape, Nuovo Cimento Soc. Ital. Fis. B 25, 730.

2555. H. F. Döbele & K. Hirsch, Scattering of Laser Light from Excited Hydrogen Atoms in a Plasma, Phys. Lett. A 54, 267.

2556. K. Dorenburg, M. Gladisch, & G. zu Putlitz, Potassium Hyperfine Density Shifts at High Noble Gas Pressures, "Seventh EGAS Conference--Summaries of Contributions," No. 65 (Grenoble, France).

1975

2557. B. E. Douda & R. J. Exton, Optically Thick Line Widths in Pyrotechnic Flares, J. Quant. Spectrosc. Radiat. Transfer 15, 615.

2558. B. Dubreuil, Comments on the Calculation of Laser Induced Hydrogenic Light Shifts, Phys. Lett. A 51, 377.

2559. M. J. Eckart, The Shape of the Sodium D Lines in a High-Temperature Helium Atmosphere, J. Phys. B 8, 852.

2560. G. H. Ecker & A. Schumacher, Dynamic Screening Model of the Electric Microfield Distribution, Z. Naturforsch., Teil A 30, 413.

2561. M. G. Edmunds, On the Broadening of Iron Lines by Neutral Hydrogen, Astron. Astrophys. 38, 137; 41, 119.

2562. R. J. Exton, Comment on Resonance Broadening, J. Quant. Spectrosc. Radiat. Transfer 15, 1141.

2563. B. W. Fowler & C. C. Sung, Doppler and Collision-Broadening Effects in the Profile of Spectral Lines, J. Opt. Soc. Am. 65, 949.

2564. J. R. Fuhr, G. A. Martin, & B. J. Specht, "Bibliography on Atomic Line Shapes and Shifts (July 1973 through May 1975)," Nat. Bur. Stand. (U.S.), Spec. Publ. 366, Suppl. 2 (U.S. Government Printing Office, Washington, D.C.).

2565. G. Fussmann, Measurement of Stark Broadened Lyman Lines, J. Quant. Spectrosc. Radiat. Transfer 15, 791.

2566. A. Gallagher, Noble Gas Broadening of the Li Resonance Line, Phys. Rev. A 12, 133.

2567. C. C. Gallagher & M. A. Levine, Observation of Hydrogen and Helium Satellites in a Turbulent Plasma, J. Quant. Spectrosc. Radiat. Transfer 15, 275.

2568. A. P. Gal'tsev, Theory of the Line Profile Caused by Molecular Interaction, Sov. J. Opt. Technol. 42, 53.

2569. D. Gebhard & W. Behmenburg, Resonance Broadening and Oscillator Strength of the Mercury Absorption Line 1850 Å, Z. Naturforsch., Teil A 30, 445.

2570. A. Giusti-Suzor & E. Roueff, Depolarization, Broadening, and Shift of Sr II and Ca II Lines by Helium Atoms, J. Phys. B 8, 2708.

2571. B. Grabowski & J. Halenka, On Red Shifts and Asymmetries of Hydrogen Spectral Lines, Astron. Astrophys. 45, 159.

2572. R. L. Greene & J. Cooper, A Unified Theory of Stark Broadening for Hydrogenic Ions--II. Line Wings, J. Quant. Spectrosc. Radiat. Transfer 15, 1037.

2573. R. L. Greene & J. Cooper, On the Effect of Time-Ordering for Lyman-α, J. Quant. Spectrosc. Radiat. Transfer 15, 991.

2574. R. L. Greene, J. Cooper, & E. W. Smith, A Unified Theory of Stark Broadening for Hydrogenic Ions--I. A General Theory (Including Time-Ordering), J. Quant. Spectrosc. Radiat. Transfer 15, 1025.

2575. R. L. Greene & J. Cooper, A Unified Theory of Stark Broadening for Hydrogenic Ions--III. Results for He II Lyman-α, J. Quant. Spectrosc. Radiat. Transfer 15, 1045.

2576. H. Greenstein & C. W. Bates, Jr., Line Width and Tuning Effects in Resonant Excitation, J. Opt. Soc. Am. 65, 33.

2577. A. Greve, The Zeeman Broadening of High n Solar Recombination Lines, Sol. Phys. 44, 371.

2578. H. R. Griem, Stark Broadening, "Advances in Atomic and Molecular Physics," Vol. 11, 331-359 (Eds., D. R. Bates & B. Bederson, Academic Press, Inc., New York).

2579. T. Grycuk & J. Wierzbicka, The Problem of Satellites of Spectral Lines in the Jablonski Theory, Opt. Commun. 14, 348.

2580. V. Ts. Gurovich, L. K. Merenkova, & V. S. Engel'sht, Calculation of the Spectrum of a Hydrogen Plasma Near a Series Limit, Sov. Phys.--Dokl. 20, 200.

2581. G. L. Hammond, The Broadening of Calcium II H and K Lines by Helium,, Astrophys. J. 196, 291.

2582. K. C. Harvey, R. T. Hawkins, G. Meisel, & A. L. Schawlow, Measurement of the Stark Effect in Sodium by Two-Photon Spectroscopy, Phys. Rev. Lett. 34, 1073.

2583. W. Heering, Diffuse Reflection and Radiative Transfer of Pressure Broadened Resonance Lines, Z. Phys. A 274, 91.

2584. W. Heering, Regular Reflection of Pressure Broadened Resonance Lines, Z. Phys. B 20, 69.

2585. J. D. Hey & H. R. Griem, Central Structure of Low-n Balmer Lines in Dense Plasmas, Phys. Rev. A 12, 169.

2586. D. Hofsäss, van der Waals Broadening for Heavy Elements, J. Quant. Spectrosc. Radiat. Transfer 15, 901.

2587. T. Hussey, J. W. Dufty, & C. F. Hooper, Kinetic Theory of Spectral Line Broadening, Phys. Rev. A 12, 1084.

2588. N. Ioli & M. Meucci, Broadening and Shift of the D_1 Line of Na Perturbed by Kr at Low Pressure, "Seventh EGAS Conference--Summaries of Contributions," No. 81 (Grenoble, France).

2589. S. Iordanescu & Th. Ionescu-Bujor, An Experimental Set-Up for Obtaining Time-Resolved Spectral Line Profiles, Rev. Roum. Phys. 20, 11.

2590. F. E. Irons, Radiative Transfer Across Expanding Laser-Produced Plasmas I. Line Profiles, J. Phys. B 8, 3044.

2591. S. L. Izotova, N. G. Preobrazhenskii, B. Z. Tambovtsev, & M. S. Frish, Methods for the Correct Treatment of Spectral Line Profiles, Opt. Spectrosc. (USSR) 38, 482.

2592. V. Kapicka, On the Problem of Spectrum Line Width Determination at High Frequency Discharges, Folia Fac. Sci. Nat. Univ. Purkynianae Brun. 16, No. 4, 5.

2593. J. F. Kielkopf, Excitation Transfer, Lifetimes, and Satellite Bands in Cs (7p)-Xe Collisions, J. Chem. Phys. 62, 4809.

2594. J. F. Kielkopf, Impact Broadening and Shift of the H_α Line by Helium, Neon, and Argon, J. Chem. Phys. 62, 3784.

2595. J. F. Kielkopf & R. B. Knollenberg, Broadening and Shift of the Sodium Diffuse Series by Noble Gas, Phys. Rev. A 12, 559.

2596. P. Klein, Stark Widths and Shifts, Thesis, Universität Düsseldorf. (Ger.)

2597. D. Kühlke, A Formulation of the Saturation of Absorption Lines, Which Are Partially Homogeneous Broadened by Collision Processes, Czech. J. Phys., Sect. B 25, 355.

2598. D. Kühlke & E. Döpel, Influence of Collision Processes on Saturated Absorption Line Shapes, Czech. J. Phys., Sect. B 25, 1084.

2599. D. Kunth, F. Masnou-Seeuws, F. Rostas, & E. Roueff, Broadening of Na 3p-3s and K 5p-4s Lines by Helium: A Discussion of Experimental and Theoretical Results, J. Phys. B 8, 203.

2600. L. N. Kurochka, The Last Resolvable Line in the Hydrogen Spectrum, Sov. Astron.--AJ 18, 526.

2601. P. Laporte, N. Damany, & H. Damany, High-Density Resonant Shift of Atomic Lines of Krypton and Xenon in the Wavelength Range 118-150 nm, Phys. Rev. A 12, 1944.

2602. E. Leboucher & F. Schuller, Moment Analysis of Absorption Profiles in Terms of Anisotropic Interatomic Potentials, J. Quant. Spectrosc. Radiat. Transfer 15, 217.

2603. C. S. Lee, D. M. Camm, & G. H. Copley, van der Waals Broadening of Argon Absorption Lines, J. Quant. Spectrosc. Radiat. Transfer 15, 211.

2604. A. Lesage & M. Miller, Experimental Widths and Shifts for Ionized Silicon Lines, C. R. Acad. Sci., Ser. B 280, 645. (Fr.)

2605. P. F. Liao & J. E. Bjorkholm, Direct Observation of Atomic Energy Level Shifts in Two-Photon Absorption, Phys. Rev. Lett. 34, 1; 34, 1540.

2606. V. S. Lisitsa, Hydrogen Line Contour Deformation Induced in a Plasma by a Strong Electromagnetic Field, Sov. Phys.--JETP 42, 101.

2607. V. S. Lisitsa & S. I. Yakovlenko, A Nonlinear Theory of Broadening and a Generalization of the Karplus-Schwinger Formula, Sov. Phys.--JETP 41, 233.

2608. M. Lukaszewski, Broadening of Level Crossing Signals in 5 $^2P_{3/2}$ State of ^{87}Rb and ^{85}Rb by Collisions with Noble-Gas Atoms, Phys. Lett. A 51, 481.

2609. B. V. L'vov, L. K. Polzik, D. A. Katskov, & L. P. Kruglikova, Interferometric Measurement of the Shift of Lines in Flames as Related to the Interpretation of Resonance Line Absorption in Atomic Absorption Spectroscopy, J. Appl. Spectrosc. (USSR) 22, 591.

2610. A. M. Malvezzi, E. Jannitti, & G. Tondello, Observations of Stark Broadening of Resonance Lines in a Beryllium, Laser Produced Plasma, Opt. Commun. 13, 307.

2611. J. M. Mermet, Comparison of Temperatures and Electron Densities Measured on Plasma Gas and On Excited Elements in a High Frequency Plasma, Spectrochim. Acta, Part B 30, 383. (Fr.)

2612. D. Mihalas, A. J. Barnard, J. Cooper, & E. W. Smith, He I λ4922 Profiles in B Stars: Calculations with an Improved Line Broadening Theory, Astrophys. J. 197, 139.

2613. A. A. Misiunas & N. A. Stulpiniene, Influence of the Intrinsic Tl Vapor Pressure on the Shape of the λ 258 nm Spectral Line, Sov. Phys.--Collect. 15, No. 5, 95.

2614. A. Misiunas & V. K. Norkunas, Effects of Temperature on the Self-Broadened Zn 3075.9 Å Line, Sov. Phys.--Collect. 15, No. 1, 82.

2615. J. Moity, P. E. Pieri, & J. Richou, Experimental Stark Constants for Some Fe I Lines, Astron. Astrophys. 45, 417. (Fr.)

2616. F. J. Morgan, A. Marcuzzi, & C. H. Dugan, Shapes of Optical Emission Lines from Atoms Excited by Fast Ion Impact: I. Calculated Profiles, Can. J. Phys. 53, 2525.

2617. A. Zh. Muradyan, Stark Broadening of Spectral Lines in the Field of Opposite Waves, Izv. Akad. Nauk Arm. SSR, Fiz. 10, 361. (Russ.)

2618. K. Niemax & G. Pichler, Determination of van der Waals Constants from the Red Wings of Self-Broadened Cs Principal Series Lines, J. Phys. B 8, 2718.

2619. K. Niemax & G. Pichler, New Aspects in the Self-Broadening of Alkali Resonance Lines, J. Phys. B 8, 179.

2620. E. A. Oks & G. V. Sholin, Stark Profiles of Hydrogen Spectral Lines in a Plasma with Langmuir Turbulence, Sov. Phys.--JETP 41, 482.

2621. E. C. Olson, Hydrogen Profiles, Helium Line Strengths, and Surface Gravities of Eclipsing Binary Stars, Astrophys. J., Suppl. Ser. 29, No. 274, 43.

2622. Ch. Ottinger, R. Scheps, G. W. York, & A. Gallagher, Broadening of the Rb Resonance Lines by the Noble Gases, Phys. Rev. A 11, 1815.

2623. Y. Pacheva, D. Zechev, & R. Dyulgerova, Intensity and Width of Spectral Lines from Copper and Iron Hollow Cathode Lamps, Bulg. J. Phys. 2, 585.

2624. T. D. Padrick & R. E. Palmer, Pressure Broadening of the Atomic Iodine $5\,^2P_{1/2}$-$5\,^2P_{3/2}$ Transition, J. Chem. Phys. 62, 3350.

2625. M. Pavlov, V. Radujkov, M. Platisa, & M. Popovic, Influence of Boundary Layer on H_α and H_β Line Shape, "Proceedings of the Twelfth International Conference on Phenomena in Ionized Gases, Eindhoven, The Netherlands, Part 1: Contributed Papers," 372 (Eds., J. G. A. Hölscher & D. C. Schram, North-Holland, Amsterdam).

2626. G. Peach, The Width of Spectral Lines, Contemp. Phys. 16, 17.

2627. N. J. Peacock & B. A. Norton, Measurement of Megagauss Magnetic Fields in a Plasma Focus Device, Phys. Rev. A 11, 2142.

2628. D. Perrin-Lagarde & R. Lennuier, Experimental Study of the Effect of Hg-Hg Interactions on the Shape of the 2537 Å Mercury Line, J. Phys. (Paris) 36, 357. (Fr.)

2629. M. Platisa, M. V. Popovic, & N. Konjevic, Stark Broadening of O II and O III Lines, Astron. Astrophys. 45, 325.

2630. M. Platisa, M. Popovic, M. Dimitrijevic, & N. Konjevic, Stark Broadening of Ar III and Ar IV Lines, Z. Naturforsch., Teil A 30, 212.

2631. L. I. Podlubny & S. A. Trigger, Distribution of Microfields in Non-Ideal Plasma, "Proceedings of the Twelfth International Conference on Phenomena in Ionized Gases, Eindhoven, The Netherlands, Part 1: Contributed Papers," 259 (Eds., J. G. A. Hölscher & D. C. Schram, North-Holland, Amsterdam).

2632. M. V. Popovic, M. Platisa, & N. Konjevic, Stark Broadening of N II and N III Lines, Astron. Astrophys. 41, 463.

2633. J. Puric, J. Labat, S. Djenize, & Lj. Cirkovic, Stark Broadening and Shift Parameters of Sodium and Potassium Resonant Lines, "Proceedings of the Twelfth International Conference on Phenomena in Ionized Gases, Eindhoven, The Netherlands, Part 1: Contributed Papers," 368 (Eds., J. G. A. Hölscher & D. C. Schram, North-Holland, Amsterdam).

2634. V. I. Rakhovskii & V. M. Shustryakov, Profile of the Absorption Line of Atoms in Metastable States Excited by Electron Impact in an Atomic Beam, Opt. Spectrosc. (USSR) 38, 603.

1975

2635. L. Q. Rang & D. Voslamber, Contribution of Ion Perturbers to the Far Wings of Lyman-α, J. Phys. B 8, 331.

2636. S. Ray, Molecular Theory of Hyperfine Pressure Shifts in H Caused by Ar and He Buffers, Phys. Rev. A 12, 2031.

2637. F. H. Read, Doppler and Other Broadening Effects in Electron Scattering Experiments, J. Phys. B 8, 1034.

2638. W. van Rensbergen, E. de Doncker, & G. Deridder, On the Broadening and Shift of Spectral Lines, Sol. Phys. 40, 303.

2639. O. Rish & M. P. Chaika, Possibility of Measuring Spectral Line Broadening by Magnetic Scanning, Opt. Spectrosc. (USSR) 38, 598.

2640. P. L. Roney, A Theory of Doppler and Binary Collision Broadening by Foreign Gases--II. Isolated Spectral Line Structure, J. Quant. Spectrosc. Radiat. Transfer 15, 181; 15, 706.

2641. P. L. Roney, A Theory of Doppler and Binary Collision Broadening by Foreign Gases--I. Formal Theory, J. Quant. Spectrosc. Radiat. Transfer 15, 361; 15, 706.

2642. P. L. Roney, Approximation of Off-Shell Scattering Operators for Non-Lorentzian Line Shape Calculations, J. Quant. Spectrosc. Radiat. Transfer 15, 301.

2643. L. J. Roszman, Effects of Time Ordering on Plasma Broadened Hydrogen Profiles, Phys. Rev. Lett. 34, 785.

2644. E. Roueff, Broadening of Some Solar Na I Lines by Atomic Hydrogen, Astron. Astrophys. 38, 41; 46, 149 (1976).

2645. E. Roueff, Calculations on Recent High Temperature Experiments Involving Alkali-Rare-Gas Collisions, J. Phys. B 8, L429.

2646. K. M. Roussel & R. F. O'Connell, A Comparison Between Debye-Hückel Screening and the Stark Effect on the Determination of the Last Observable Spectral Line from a Hydrogen-Like Plasma, Phys. Lett. A 51, 244.

2647. A. Royer, Theory of Self-Broadening of Spectral Lines, Can. J. Phys. 53, 2470.

2648. A. Royer, Theory of Self-Broadening in an Adiabatic Representation, Can. J. Phys. 53, 2477.

2649. B. F. Rozsnyai, Screening Effects Upon Spectral Lines in Hot Matter, J. Quant. Spectrosc. Radiat. Transfer 15, 695.

2650. W. R. Rutgers, On the Deduction of Turbulent Field Parameters from the Profile of Forbidden Helium Spectral Lines, "Proceedings of the Twelfth International Conference on Phenomena in Ionized Gases, Eindhoven, The Netherlands, Part 1: Contributed Papers," 371 (Eds., J. G. A. Hölscher & D. C. Schram, North-Holland, Amsterdam).

2651. W. R. Rutgers & H. W. Kalfsbeek, Calculations and Measurements of the Dynamic Stark Effect in Hydrogen, Z. Naturforsch., Teil A 30, 739.

2652. E. S. Sachs & J. Hinze, Calculation of the Far-Wing Line Broadening of the Sodium D Line Induced by Collisions with Hydrogen Atoms, J. Chem. Phys. 62, 3389.

2653. M. Sassi, C. Deutsch, & G. Coulaud, Stark Broadening of the Overlapping 4471.48 Å He I Line in a Plasma. II. Nonmarkovian and Ion Dynamic Effects, Ann. Phys. (N.Y.) 89, 274.

2654. E. Schatzman & C. Magnan, Shifts and Asymmetries of Lines Formed in a Thermally Driven Turbulent Medium, Astron. Astrophys. 38, 373.

2655. R. Scheps, Ch. Ottinger, G. York, & A. Gallagher, Continuum Spectra and Potentials of Li-Noble Gas Molecules, J. Chem. Phys. 63, 2581.

2656. A. Schumacher, The Microfield Distribution Evaluated from the Dynamic Screening Model, "Proceedings of the Twelfth International Conference on Phenomena in Ionized Gases, Eindhoven, The Netherlands, Part 1: Contributed Papers," 258 (Eds., J. G. A. Hölscher & D. C. Schram, North-Holland, Amsterdam).

2657. Y. Shimoni & A. D. Wilson, Quantal Studies of Alkali Metal-Rare Gas Collisions. IV. Depolarization, Broadening, and Shift of Rb D Lines by Ne, Chem. Phys. 11, 289.

2658. G. Smith, Collision Broadening and Shift in the 6s-7p Doublet of Cesium, J. Phys. B 8, 2273.

2659. D. S. Spicer & J. Davis, The Stark Broadening Mechanism in an Unstable Plasma, Sol. Phys. 43, 107.

1975

2660. R. P. Srivastava & H. R. Zaidi, Complete Line Shape for the Impact, Static, and the Intermediate Regions, Can. J. Phys. 53, 84.

2661. R. Stamm & D. Voslamber, Plasma Spectroscopy--Analysis of the Line Profiles of the Balmer Series, C. R. Acad. Sci., Ser. B 280, 223. (Fr.)

2662. H. J. Stupp & Th. Overhoff, Atomic Emission Spectroscopy, By Laser Excitation, on Graphite Under Elevated Pressure--II. Characteristics and Special Features of the Emission Spectra, Spectrochim. Acta, Part B 30, 89. (Ger.)

2663. K. G. P. Sulzmann, G. E. Parks, & S. S. Penner, Line Intensities, Shifts, and Broadenings of Fe I Lines in Shock-Heated Gas Mixtures, "Modern Developments in Shock Tube Research," 648-659 (Ed., G. Kaminoto, Kyoto, Japan).

2664. J. Szudy, Density Expansion of the Shape of Pressure-Broadened Spectral Lines, Bull. Acad. Pol. Sci., Ser. Sci., Math., Astron. Phys. 23, 629.

2665. J. Szudy & W. E. Baylis, Unified Franck-Condon Treatment of Pressure Broadening of Spectral Lines, J. Quant. Spectrosc. Radiat. Transfer 15, 641; 17, 269 (1977).

2666. T. Tako, Y. Koga, & I. Hirano, Spectral Profiles of Rb-D Lines, Jpn. J. Appl. Phys. 14, 591; 14, 1261.

2667. A. Tam, G. Moe, W. Park, & W. Happer, Strong New Emission Bands in Alkali-Noble-Gas Systems, Phys. Rev. Lett. 35, 85.

2668. N. Tran Minh, N. Feautrier, & H. van Regemorter, A Quantum Unified Theory of Stark Broadening in the Wings of Spectral Lines, J. Phys. B 8, 1810.

2669. H. Umemoto, S. Yamamoto, & S. Sato, The Pressure Broadening of the Cadmium-Resonance Line at 326.1 nm in Ammonia and Argon, Bull. Chem. Soc. Jpn. 48, 2760.

2670. I. A. Vasileva, L. V. Deputatova, & A. P. Nefedov, Experimental Study of Absorptance in the Wings of the Potassium and Sodium Resonance Doublets, Opt. Spectrosc. (USSR) 39, 8.

2671. B. A. Veklenko & G. B. Tkachuk, Transfer of Resonance Radiation in a Narrow Spectral Line, Opt. Spectrosc. (USSR) 38, 653.

2672. J. Vetter, M. Stuke, & E. W. Weber, Hyperfine Density Shifts of $^{137}Ba^{+}$ Ions in Noble Gas Buffers, Z. Phys. A 273, 129.

1975

2673. S. Volonte, Improved Quantum Mechanical Treatment of Plasma Polarization Shift of Ion Lines, J. Phys. B 8, 1170; Plasma Polarization Shift: An Improved Quantum-Mechanical Treatment, Astrophys. Space Sci. 38, 377.

2674. H. C. Wagenaar & L. de Galan, The Influence of Line Profiles Upon Analytical Curves for Copper and Silver in Atomic Absorption Spectroscopy, Spectrochim. Acta, Part B 30, 361.

2675. C. C. Wang & L. I. Davis, Jr., Saturation of Resonant Two-Photon Transitions in Thallium Vapor, Phys. Rev. Lett. 35, 650.

2676. J. F. Ward & A. V. Smith, Saturation of Two-Photon-Resonant Optical Processes in Cesium Vapor, Phys. Rev. Lett. 35, 653.

2677. K. Wendt & H. J. Kusch, Self-Broadening of Principal Series Lines of Rubidium at High Number Densities and Oscillator Strengths, Z. Phys. A 275, 111.

2678. W. L. Wiese, D. E. Kelleher, & V. Helbig, Variations in Balmer-Line Stark Profiles with Atom-Ion Reduced Mass, Phys. Rev. A 11, 1854.

2679. A. D. Wilson & Y. Shimoni, Quantal Studies of Alkali-Metal-Rare-Gas Collisions. III. Broadening of Na D Lines by He, J. Phys. B 8, 2415.

2680. G. York, R. Scheps, & A. Gallagher, Continuum Radiation and Potentials of Na-Noble Gas Molecules, J. Chem. Phys. 63, 1052.

2681. H. R. Zaidi, Theory of Resonance Broadening Including the Duration of Collision Effects, Can. J. Phys. 53, 76.

2682. A. Yu. Zav'yalova, G. I. Zav'yalov, & N. A. Prilezhaeva, Broadening of the Hg 2537 Å Line as a Function of the Density of Hg Atoms in the Presence of Several Metals, Sov. Phys. J. 18, 258.

2683. D. Zechev, R. Dyulgerova, & Y. Pacheva, The Profile of the Fe 372·00 nm Line Excited in a Hollow Cathode Discharge, J. Quant. Spectrosc. Radiat. Transfer 15, 941.

1976

2704. D. P. Aeschliman, R. A. Hill, & D. L. Evans, Collisional Broadening and Shift of Neutral Argon Spectral Lines, Phys. Rev. A 14, 1421.

2705. K. Ando, T. Akahane, & T. Tako, A New Method for Determination of Line Shape Parameters of High Gain Laser Transition, Jpn. J. Appl. Phys. 15, 663.

2706. M. S. Awan & E. L. Lewis, Collision-Induced Features in the Spectrum of Rubidium, J. Phys. B 9, L551.

2707. H. J. Baker & T. A. King, Line Broadening and Saturation Parameters for Short-Pulse High-Pressure Iodine Photodissociation Laser Systems, J. Phys. D 9, 2433.

2708. P. Bakshi & G. Kalman, Possible Spectral Diagnostics for Turbulent Electric Fields in Solar Flares, Sol. Phys. 47, 307.

2709. I. D. Baranova & N. S. Tskhai, Determination of Kinetic Temperature of a Gas from Spectral Line Shape, J. Appl. Spectrosc. (USSR) 24, 681.

2710. J. M. Bassalo & M. Cattani, Stark Broadening of Neutral Helium Lines in a Plasma: Quantum-Mechanical Calculations for the Electron Impact Effects, J. Phys. B 9, L181.

2711. F. Bastien, B. Fertil, & E. Marode, H_α and H_β Broadening Emitted by Minute Concentrations of Hydrogen in Oxygen Corona Discharges, J. Phys. D 9, L155.

2712. Vl. V. Batygin & B. G. Matisov, Shift of the Hydrogen Hyperfine Line in a Helium Buffer by Exchange Perturbation Theory, Sov. Phys.--Tech. Phys. 21, 125.

2713. V. P. Bayanov, S. S. Gulidov, A. A. Mak, G. V. Peregudov, I. I. Sobel'man, A. D. Starikov, & V. A. Chirkov, X-Ray Spectroscopic Investigation of the Spatial Distribution of the Parameters of a Laser Plasma Heated by 10^{-10} sec Pulses, Sov. J. Quantum. Electron. 6, 1226.

2714. V. P. Bayanov, S. S. Gulidov, A. A. Mak, G. V. Peregudov, I. I. Sobel'man, A. D. Starikov, & V. A. Chirkov, Measurement of the Spatial Profile of the Electron Density in a Magnesium Laser Plasma by Determining the Stark Broadening in the X-Ray Region of the Spectrum, JETP Lett. 23, 183.

2715. B. L. Bean & R. H. Lambert, Temperature Dependence of Hyperfine Density Shifts. IV. ^{23}Na, ^{39}K, and ^{85}Rb in He, Ne, Ar, and N_2 at Low Temperatures, Phys. Rev. A 13, 492.

2716. C. W. Beer & R. A. Bernheim, Hyperfine Pressure Shift of ^{133}Cs Atoms in Noble and Molecular Buffer Gases, Phys. Rev. A 13, 1052.

2717. G. Bekefi, C. Deutsch, & B. Yaakobi, Spectroscopic Diagnostics of Laser Plasmas, "Principles of Laser Plasmas," Ch. 13, 549-669 (Ed., G. Bekefi, John Wiley & Sons, New York).

2718. R. D. Bengtson & G. R. Chester, Stark Broadening of Balmer Lines in the Density Range (2-8) × 10^{14} cm^{-3}, Phys. Rev. A 13, 1762.

2719. Z. Ben Lakhdar, D. Perrin, & R. Lennuier, Experimental Study of the Wings of the 2537 Å Line of Mercury, Perturbed by Krypton and Xenon, J. Phys. (Paris) 37, 831. (Fr.)

2720. A. Ben-Reuven, J. Jortner, L. Klein, & S. Mukamel, Collision Broadening in Two-Photon Spectroscopy, Phys. Rev. A 13, 1402.

2721. P. R. Berman, Theory of Collision Effects in Doppler-Free Spectroscopy, Phys. Rev. A 13, 2191.

2722. E. Bernabeu & F. Garcia-Peralta, On the Influence of the Instrumental Function of a Fabry-Perot Spectrometer on the Spectral Profiles, Opt. Pura Apl. 9, 101.

2723. D. G. Bevan & G. F. Kirkbright, The Influence of Operating Parameters on the Profile of the Calcium 422.67 nm Resonance Line Emitted by a Demountable Hollow Cathode Lamp, Appl. Spectrosc. 30, 162.

2724. G. Birnbaum & E. R. Cohen, Theory of Line Shape in Pressure-Induced Absorption, Can. J. Phys. 54, 593.

2725. A. Brissaud, C. Goldbach, J. Leorat, A. Mazure, & G. Nollez, On the Validity of the Model Microfield Method As Applied to Stark Broadening of Neutral Lines, J. Phys. B 9, 1129.

2726. A. Brissaud, C. Goldbach, J. Leorat, A. Mazure, & G. Nollez, Application of the Model Microfield Method to Stark Profiles of Overlapping and Isolated Neutral Lines, J. Phys. B 9, 1147.

2727. Ph. Cahuzac, O. Robaux, & R. Vetter, Pressure-Broadening Studies of the 3·51 μm Line of Xenon by Saturated Amplification Techniques, J. Phys. B 9, 3165.

2728. M. R. Cherkasov, Pressure Broadening of the Overlapping Spectral Lines. 1: Calculation of the Matrix Elements of the Relaxation Operator, Opt. Spectrosc. (USSR) 40, 3.

1976

2729. G. H. Copley, Measurement of the Broadening of the Sodium Resonance Lines by Helium, Can. J. Phys. 54, 619.

2730. G. H. Copley, A Comparison of Self-Broadening and Shift of Helium, Neon, and Argon Emission Lines, J. Quant. Spectrosc. Radiat. Transfer 16, 553.

2731. G. H. Copley, A Comparison of Foreign Gas Broadening and Shift of Neon and Argon Emission Lines, J. Quant. Spectrosc. Radiat. Transfer 16, 377.

2732. E. Czuchaj, The Influence of the Motion of a Radiating Atom on the Line Width in the Doppler Limit, Z. Phys. A 276, 85.

2733. G. Deridder & W. van Rensbergen, Tables of Damping Constants of Spectral Lines Broadened by H and He, Astron. Astrophys., Suppl. Ser. 23, 147.

2734. C. Deutsch & G. Bekefi, Stark Broadening Calculations of the Lyman-α Line in A Turbulent Plasma, Phys. Rev. A 14, 854.

2735. C. S. Diatta, A. Czernichowski, & J. Chapelle, Experimental Study of Stark Broadening and Shift of the He I Line 4 ^{1}D-2 ^{1}P (λ = 4921 Å) and Its Forbidden Component 4 ^{1}F-2 ^{1}P (λ = 4920.35 Å) for Electron Densities $7 \times 10^{14} \lesssim N_e\ [cm^{-3}] \lesssim 3 \times 10^{16}$, Physica C (Amsterdam) 84, 425.

2736. M. Dimitrijevic, Threshold Effects in Stark Broadening, "Physics of Ionized Gases 1976: Contributions," 424-426 (J. Stefan Institute, Ljubljana, Yugoslavia).

2737. M. Dimitrijevic & P. Grujic, On the Influence of the Polarization Potential on Stark Broadening, "Physics of Ionized Gases 1976: Contributions," 427-430 (J. Stefan Institute, Ljubljana, Yugoslavia).

2738. H. F. Döbele & K. Hirsch, Evidence for Laser-Induced Effects in Laser Scattering Diagnostics, Phys. Lett. A 58, 189.

2739. H. F. Döbele & J. H. Massig, Application of a Fabry-Perot Spectrometer to the Measurement of Spectral Line Shifts Much Smaller than Line Width, Appl. Opt. 15, 69.

2740. A. Dönszelmann & J. Neijzen, Line Profiles in Dependence of Optical Pumping, Relaxation, and Saturation, Opt. Commun. 18, 230.

2741. Yu. P. Dontsov & Yu. A. Zavenyagin, Intensity Distribution in a Real Fabry-Perot Interference Pattern and Determination of Broadening Factors by Harmonic Analysis of Experimental Profiles, J. Appl. Spectrosc. (USSR) 24, 631.

2742. S. R. Drayson, Rapid Computation of the Voigt Profile, J. Quant. Spectrosc. Radiat. Transfer 16, 611.

2743. R. D. Driver & J. L. Snider, The Broadening of the Calcium Resonance Line in a High-Temperature Helium Atmosphere, Astrophys. J. 208, 518.

2744. J. W. Dufty & D. B. Boercker, Correlations in the Quantum Theory of Plasma Line Broadening, J. Quant. Spectrosc. Radiat. Transfer 16, 1065.

2745. D. Einfeld & G. Sauerbrey, Determination of the Electron Density in a Helium Plasma, Z. Naturforsch., Teil A 31, 310. (Ger.)

2746. N. Feautrier, N. Tran Minh, & H. van Regemorter, The Quantum Unified Theory Applied to the Lyman-α Profile Calculation, J. Phys. B 9, 1871.

2747. J. Fiutak & E. Paul, The Effect of the Velocity Changing Collision on the Atomic Line Shape, Acta Phys. Pol. A 49, 773.

2748. R. R. Freeman, D. E. Pritchard, & D. Kleppner, Argon-Induced Hyperfine Frequency Shift in Potassium, Phys. Rev. A 13, 907.

2749. R. S. Freund, J. A. Schiavone, & D. F. Brader, Dissociative Excitation of H_2: Spectral Line Shapes and Electron Impact Cross Sections of the Balmer Lines, J. Chem. Phys. 64, 1122.

2750. W. Fuss & K. Hohla, Pressure Broadening of the 1.3 μm Iodine Laser Line, Z. Naturforsch., Teil A 31, 569.

2751. I. F. Garapova, N. G. Zalyalov, R. Kh. Ismagilov, & R. S. Tukhvatullin, Determination of the Optical Characteristics of an Oscillating Arc Plasma from the H_α Spectral Line Profile, J. Appl. Spectrosc. (USSR) 25, 1307.

2752. E. F. Gippius, B. I. Ilyukhin, V. N. Kolesnikov, & L. I. Shumskaya, Measurement of the $N_e(r,t)$ Distribution in a Pulsed Discharge Column from Spectral Line Width, J. Appl. Spectrosc. (USSR) 24, 280.

2753. A. Goly & B. Grabowski, Comparison of Theoretical and Experimental Profiles of Neutral Carbon Multiplet in Various Physical Conditions, Zesz. Nauk. Wyzsz. Szk. Pedagog. Opolu, Fiz. No. 17, 93. (Pol.)

1976

2754. M. Gorecka & J. Musielok, Comparison of Theoretical and Experimental Profiles of Certain Ar I Lines Emitted by Argon Plasma at Pressures Higher Than Atmospheric, Zesz. Nauk. Wyzsz. Szk. Pedagog. Opolu, Fiz. No. 17, 103. (Pol.)

2755. R. Granier, J. Granier, & F. Schuller, Calculations of Impact Broadening and Shift of Spectral Lines for Realistic Interatomic Potentials, J. Quant. Spectrosc. Radiat. Transfer 16, 143.

2756. R. L. Greene, Stark Broadening of the 1640- and 4686-Å Lines of Ionized Helium, Phys. Rev. A 14, 1447.

2757. H. R. Griem, Stark Broadening in Turbulent Plasmas, "Physics of Ionized Gases 1976," 711-718 (Ed., B. Navinsek, University of Ljubljana, J. Stefan Institute, Ljubljana, Yugoslavia).

2758. H. R. Griem, Stark Broadening in Thermal Plasmas, "Physics of Ionized Gases 1976," 699-710 (Ed., B. Navinsek, University of Ljubljana, J. Stefan Institute, Ljubljana, Yugoslavia).

2759. H. R. Griem & J. D. Hey, Reply to "Upper-Lower State Interference Term in Stark Broadening", Phys. Rev. A 14, 1906.

2760. J. Grumberg, G. Coulaud, & Nguyen-Hoe, Stark Broadening of Sodium Lines Emitted By a Sodium Argon Mixture Plasma, Phys. Lett. A 57, 227.

2761. T. V. Gvaladze, B. N. Grechushnikov, & I. N. Kalinkina, Analysis of Voigt Profiles, J. Appl. Spectrosc. (USSR) 25, 1591.

2762. P. Hannaford & R. M. Lowe, Abnormal Broadening of Boron Emission Lines in Glow Discharge Lamps: Evidence for Excitation in Low Energy B-Ar (Kr or Xe) Collisions, J. Phys. B 9, 2595.

2763. V. Helbig, D. E. Kelleher, & W. L. Wiese, Stark Broadening Study of Neutral Nitrogen Lines, Phys. Rev. A 14, 1082.

2764. P. L. Hewitt, Calculations of Pressure Induced Widths and Shifts in Microwave Spectra, J. Quant. Spectrosc. Radiat. Transfer 16, 499.

2765. J. D. Hey, Line Intensity Fluctuations from Dense Plasmas, J. Quant. Spectrosc. Radiat. Transfer 16, 373.

2766. J. D. Hey, A Generalization of Some Functions of Holtsmark and Chandrasekhar and Von Neumann, J. Quant. Spectrosc. Radiat. Transfer 16, 947.

2767. J. D. Hey, Estimates of Stark Broadening of Nitrogen Ion Lines, J. Quant. Spectrosc. Radiat. Transfer 16, 575.

2768. G. Himmel, Plasma Effects in the Spectrum of High Balmer Lines, J. Quant. Spectrosc. Radiat. Transfer 16, 529.

2769. Yu. F. Igonin, Possibility of Determining the Parameters of a Plasma with an Electron Density of 10^{12}-10^{14} cm^{-3} by Comparing the Contours of the Hydrogen Isotope Lines, J. Appl. Spectrosc. (USSR) 25, 906.

2770. T.-D. Im, V. P. Kochanov, S. G. Rautian, E. G. Saprykin, & A. M. Shalagin, Influence of Collisions on Nonlinear Absorption Spectrum in the Region of the $3s_2$-$2p_4$ Transition in Neon, Sov. J. Quantum Electron. 6, 283.

2771. N. Ioli & M. Meucci, An Investigation of the Long-Range Interatomic Potential Na-Kr by Observing Broadening and Shift on the Na D_1 Line, Lett. Nuovo Cimento 16, 143.

2772. R. C. Isler, Profiles and Polarizations of the Balmer-α Line from High-Temperature Hydrogen Atoms in Strong Magnetic Fields, Phys. Rev. A 14, 1015.

2773. G. K. Ivanov, Calculation of the Spectral Characteristics of a Highly Excited Atom in a Foreign Gas, Opt. Spectrosc. (USSR) 40, 554.

2774. D. A. Jackson, Pressure Shifts and Broadenings in the Arc Spectrum of Xenon, J. Opt. Soc. Am. 66, 1014.

2775. V. L. Jacobs, J. Davis, & P. C. Kepple, Enhancement of Dielectronic Recombination by Plasma Electric Microfields, Phys. Rev. Lett. 37, 1390.

2776. N. I. Kaliteevskii, O. M. Rish, & M. P. Chaika, Measurement of the Broadening and Shift of the D_1 Line of Rubidium 87 Due to Collision with Atomic Krypton, Opt. Spectrosc. (USSR) 41, 293.

2777. M. Kent & E. L. Schucking, Doppler Broadening at All Temperatures, Ann. Phys. (N.Y.) 100, 457.

2778. P. C. Kepple & H. R. Griem, Stark Profile Calculations for the Lines of the Al XIII Lyman Series Emitted in Dense Plasmas, NRL Memorandum Report 3382.

2779. J. F. Kielkopf, Predicted Alkali Collision Broadening by Noble Gases Based on Semi-Empirical Potentials, J. Phys. B 9, L547.

1976

2780. J. F. Kielkopf, On the Precise Evaluation of the Complete Semi-Classical Spectral Line Shape for Pressure-Broadened Atomic Spectral Lines, J. Phys. B 9, 1601.

2781. L. G. Kiseleva & N. S. Terpugova, Influence of the Apparatus Function on the Accuracy of Measuring Parameters of the Unreabsorbed Spectrum Line Contour, Sov. Phys. J. 19, 1480.

2782. J. W. Knutson, Jr. & W. R. Bennett, Jr., Line Broadening of the $3s_2$-$2p_n$ Laser Transitions of Neon, Phys. Rev. A 13, 318; 14, 534.

2783. V. P. Kochanov, S. G. Rautian, E. G. Saprykin, & A. M. Shalagin, Experimental Investigation of Spontaneous Emission by Neon in the Presence of a Strong Monochromatic Field, Sov. Phys.--JETP 43, 1082.

2784. N. Konjevic & J. R. Roberts, A Critical Review of the Stark Widths and Shifts of Spectral Lines from Non-Hydrogenic Atoms, J. Phys. Chem. Ref. Data 5, 209.

2785. N. Konjevic & W. L. Wiese, Experimental Stark Widths and Shifts for Non-Hydrogenic Spectral Lines of Ionized Atoms (A Critical Review and Tabulation of Selected Data), J. Phys. Chem. Ref. Data 5, 259.

2786. M. E. Korobkov, Improving Spectral Resolution by Mathematical Methods, J. Appl. Spectrosc. (USSR) 25, 920.

2787. E. K. Kraulinya, S. Ya. Liepa, & A. Ya. Skudra, Spectral Line Shapes of Thallium in Sensitized Fluorescence of Mercury-Thallium Vapor Mixture, Opt. Spectrosc. (USSR) 40, 440.

2788. N. Kuramochi, H. Fukuyo, I. Matsuda, & N. Shiomi, Spectral Profiles of the ^{87}Rb Pumping Light Source, Jpn. J. Appl. Phys. 15, 949.

2789. N. Kuramochi, I. Matsuda, S. Naruse, K. Iga, & H. Fukuyo, Measurement of the Frequency Displacement of the ^{87}Rb Pumping Light Passed Through the ^{85}Rb Filter Cell, Bull. Res. Lab. Precis. Mach. Electron. No. 38, 47.

2790. Yu. K. Kurilenkov & V. S. Filinov, Theory of the Microfield in a Nonideal Plasma, High Temp. (USSR) 14, 783.

2791. H. J. Kusch & H. Schwiecker, Broadening and Shift of Magnesium Lines by van der Waals Interaction with Hydrogen Atoms and by Electron Impacts, Astron. Astrophys. 53, 59.

2792. K. R. Lang & S. D. Lord, Limits to the Broadening of Radio Recombination Lines by Electron Collisions, Mon. Not. R. Astron. Soc. 175, 217.

2793. P. F. Liao & J. E. Bjorkholm, Optically-Induced Energy Level Shifts for Intermediate Intensities, Opt. Commun. 16, 392.

2794. E. R. Lubenets, Differential and Integral Description of the Variation of Emission Line Profiles, Opt. Spectrosc. (USSR) 40, 364.

2795. M. Lukaszewski, Collisional Broadening of Level Crossing Signal in Rubidium, Acta Phys. Pol. A 49, 93.

2796. N. Lwin, D. G. McCartan, & E. L. Lewis, Semi-Classical Collision Calculations for the Broadening and Shift of the Sodium D Lines by Noble Gases, J. Phys. B 9, L161.

2797. H. H. Madden & J. E. Houston, Correction of Distortions in Spectral Line Profiles: Applications to Electron Spectroscopies, J. Appl. Phys. 47, 3071.

2798. J. Marek & K. Niemax, Emission Bands of the Cs-Xe Molecular System, Phys. Lett. A 57, 414.

2799. Z. Maric, M. Moles, & J. P. Vigier, Possible Measurable Consequences of the Existence of a New Anomalous Redshift Cause on the Shape of Symmetrical Spectral Lines, Astron. Astrophys. 53, 191.

2800. D. G. McCartan & J. M. Farr, Collision Broadening of the Sodium Resonance Lines by Noble Gases, J. Phys. B 9, 985.

2801. V. G. Mikhalev, S. N. Ogorodnikov, R. V. Orlov, & G. F. Smirnova, Spectroscopic Studies of a Low-Pressure Cesium Plasma, J. Appl. Spectrosc. (USSR) 24, 99.

2802. A. A. Misiunas, V. K. Norkunas, & N. A. Stulpiniene, Effects of Temperature and He Concentration on Collisional Effects for the 326.1 nm Line of ^{114}Cd, Sov. Phys.--Collect. 16, No. 3, 60.

2803. A. A. Misiunas & N. A. Stulpiniene, Effect of the Interaction Between Thallium and Xenon on the Shape of the 377.5 nm Line, Sov. Phys.--Collect. 16, No. 2, 84.

2804. G. Moe, A. C. Tam, & W. Happer, Absorption Studies of Excimer Transitions in Cs-Noble-Gas and Rb-Noble-Gas Molecules, Phys. Rev. A 14, 349.

1976

2805. B. Musielok, J. Musielok, & T. Wujec, Comparison of Theoretical and Experimental Profiles and Half Widths of Selected Ar I Lines in Various Physical Conditions, Zesz. Nauk. Wyzsz. Szk. Pedagog. Opolu, Fiz. No. 17, 63. (Pol.)

2806. J. Musielok, B. Musielok, & T. Wujec, Defining the Continuous Spectrum Level at Determination of a Spectral Line Profile, Zesz. Nauk. Wyzsz. Szk. Pedagog. Opolu, Fiz. No. 17, 23. (Pol.)

2807. I. S. K. Mwana Umbela, Stark Broadening of Carbon Lines in an Arc Plasma, Astron. Astrophys. 53, 243.

2808. D. I. Nagirnev & V. G. Vedmich, Spectral Line Broadening by Electron Scattering. I. Calculation Methods, Astrophys. (USSR) 12, 287.

2809. T.-J. A. Nee, Measurement of Hydrogen n-α Stark Profiles in a Turbulent Plasma, University of Maryland Technical Report No. TR 76-033.

2810. T.-J. A. Nee & H. R. Griem, Measurement of Hydrogen n-α Line Stark Profiles in a Turbulent Plasma, Phys. Rev. A 14, 1853.

2811. M. Neiger & H. R. Griem, Experimental Investigation of Stark Broadening and Plasma Polarization Shift of Ionized Helium Resonance Lines, Phys. Rev. A 14, 291.

2812. G. Nienhuis, Frequency Dependence of the Polarization of Radiation Emitted by Polarized Atoms, Physica C (Amsterdam) 81, 381.

2813. E. A. Oks & G. V. Sholin, Stark Profiles of Hydrogen Lines in a Plasma with Low-Frequency Turbulence, Sov. Phys.--Tech. Phys. 21, 144.

2814. B. J. O'Mara, Comments on the Broadening of Spectral Lines by Collisions with Atomic Hydrogen, Mon. Not. R. Astron. Soc. 177, 551.

2815. V. I. Osherov & Yu. I. Polyakov, Adiabatic Satellites of Atomic Lines, Opt. Spectrosc. (USSR) 41, 401.

2816. I. I. Ostroukhova & G. V. Shlyapnikov, Statistical Profile of a Spectral Line, Opt. Spectrosc. (USSR) 41, 12.

2817. G. V. Ovechkin & L. E. Sandrigailo, Broadening of Calcium Spectral Lines in an Arc Plasma, J. Appl. Spectrosc. (USSR) 24, 152.

2818. P. Pinson & J. Dupre-Maquaire, Equivalent Widths of Superfluorescent Lines with Combined Doppler and Collision Broadening, J. Quant. Spectrosc. Radiat. Transfer 16, 101.

2819. D. Prosnitz, D. W. Wildman, & E. V. George, Laser-Induced Optical Satellite Line Profiles in a Helium Plasma, Phys. Rev. A 13, 891.

2820. J. Puric, J. Labat, S. Djenize, Lj. Cirkovic, & I. Lakicevic, Experimental Measurements of Stark Shifts and Widths of Na I and K I Resonance Lines, Phys. Lett. A 56, 83.

2821. J. Ramette & H. W. Drawin, Structure of Stark Broadened H_β Lines at Low Electron Densities, Z. Naturforsch., Teil A 31, 401.

2822. V. N. Rebane, Possibility of Nonuniform Collisional Broadening and Shift of the Hyperfine Components of a Spectral Line, Opt. Spectrosc. (USSR) 41, 214.

2823. V. N. Rebane, Calculation of the Broadening and Shift of Hyperfine Components of Rubidium and Cesium D_1 Lines in Collisions with Atoms of Heavy Inert Gases, Opt. Spectrosc. (USSR) 41, 526.

2824. P. P. Schmidt, A Method for the Convolution of Line Shapes Which Involve the Lorentz Distribution, J. Phys. B 9, 2331.

2825. H. Schwiecker, Evaluation of Photometric Spectral Line Profiles by Digital Computer Methods, J. Quant. Spectrosc. Radiat. Transfer 16, 623.

2826. K. Shimoda, Line Broadening and Narrowing Effects, "Topics in Applied Physics: High-Resolution Laser Spectroscopy," Vol. 13, Ch. 2, 11-49 (Ed., K. Shimoda, Springer-Verlag, New York).

2827. H. L. Shipman & R. G. Mehan, The Unimportance of Pressure Shifts in the Measurement of Gravitational Redshifts in White Dwarfs, Astrophys. J. 209, 205.

2828. A. Sikorska, K. Werel, & J. Heldt, Interferometric Analysis of the Spectral Lines from the He-Cd^+ Laser Plasma, Bull. Acad. Pol. Sci., Ser. Sci., Math., Astron. Phys. 24, 661.

2829. E. W. Smith, M. Giraud, & J. Cooper, A Semi-Classical Theory for Spectral Line Broadening in Molecules, J. Chem. Phys. 65, 1256; 66, 376.

1976

2830. G. Smith & B. S. Collins, Collision Broadening and Shift of the Lithium Resonance Line by Helium, J. Phys. B 9, L117.

2831. M. A. Smith & D. F. Gray, Fourier Analysis of Spectral Line Profiles: A New Tool for an Old Art, Publ. Astron. Soc. Pac. 88, 809.

2832. V. A. Solyanikova, Method of Determining Plasma Parameters from Self-Reversed Spectral Line Profiles, Opt. Spectrosc. (USSR) 40, 128.

2833. R. P. Srivastava & H. R. Zaidi, Lorentz-Lorenz Shift in Gases, J. Quant. Spectrosc. Radiat. Transfer 16, 301.

2834. M. L. Strekalov & A. I. Burshtein, Quasiresonant Spectral Line Broadening in the Impact Approximation, Sov. Phys.--JETP 43, 448.

2835. K. G. P. Sulzmann, G. E. Parks, & S. S. Penner, Observations of Lorentzian Lines with Slits of Finite Widths, J. Quant. Spectrosc. Radiat. Transfer 16, 97.

2836. J. Szudy & W. E. Baylis, Quasimolecular Treatment of Stark Broadening in Hydrogen, Can. J. Phys. 54, 2287.

2837. T. Tako, Y. Koga, & I. Hirano, Spectral Profiles of Cs-D Lines, Jpn. J. Appl. Phys. 15, 373.

2838. A. C. Tam & G. W. Moe, Emission Bands from Discharge-Excited Alkali-Noble-Gas Systems, Phys. Rev. A 14, 528.

2839. B. Z. Tambovtsev & V. I. Drobyshevich, Reconstruction of the True Contour of a Spectral Line from Actual Measurements, J. Appl. Spectrosc. (USSR) 24, 214.

2840. G. V. Telegin & V. V. Fomin, The Lennard-Jones 12-6 Potential in Intensity Calculation for the Long Wave Flank of a Spectral Line, J. Appl. Spectrosc. (USSR) 24, 781.

2841. R. J. Tighe & C. F. Hooper, Jr., Stark Broadening in Hot, Dense Laser-Produced Plasmas, Phys. Rev. A 14, 1514.

2842. N. Tran Minh, N. Feautrier, & H. van Regemorter, On Simple Quantum Theories of Pressure Broadening: The Exact Resonance Approximation Applied to Lyman Alpha, J. Quant. Spectrosc. Radiat. Transfer 16, 849.

1976

2843. C. van Trigt, Analytically Solvable Problems in Radiative Transfer. IV, Phys. Rev. A 13, 726.

2844. C. van Trigt, Complete Redistribution in the Transfer of Resonance Radiation, Phys. Rev. A 13, 734.

2845. J. J. Turechek, Departures from Theory of the Experimental Line Profile of Helium I 4471.5 Å, J. Quant. Spectrosc. Radiat. Transfer 16, 1133.

2846. S. Vacquie, H. Kafrouni, & A. Gleizes, Influence of Hydrogen on the Electron Density in an Argon Plasma, Phys. Lett. A 56, 197. (Fr.)

2847. J. R. Van Zandt, Shift Measurements of the Stark-Broadened Ionized Helium Lines at 1640 and 1215 Å, University of Maryland Technical Report No. 76-077, Physics Publication No. 76-134.

2848. J. R. Van Zandt, J. C. Adcock, Jr., & H. R. Griem, Shift and Width Measurements of the Stark-Broadened Ionized Helium Line at 1215 Å, Phys. Rev. A 14, 2126.

2849. D. Voslamber, Upper-Lower State Interference Term in Stark-Broadening Theory: Comment on a Paper by J. D. Hey and H. R. Griem, Phys. Rev. A 14, 1903.

2850. S. Watanabe, Line Width Measurement and Population Calculation of a He-Cd Laser, J. Appl. Phys. 47, 4887.

2851. J. C. Weisheit & B. F. Rozsnyai, On the Asymmetry of Lines Emitted by One-Electron Ions in Very Dense Plasmas, J. Phys. B 9, L63.

2852. J. Wolnikowski, Self-Broadening of Neon Spectral Lines, Bull. Acad. Pol. Sci., Ser. Sci., Math., Astron. Phys. 24, 815.

2853. B. Yaakobi & A. Nee, Spatially Resolved and Stark-Broadened X-Ray Lines from Laser-Imploded Targets, Phys. Rev. Lett. 36, 1077.

2854. D. Z. Zechev, Profile of the emission Line of Helium in a Hollow Cathode, Opt. Spectrosc. (USSR) 41, 187.

2855. G. V. Zhuvikin, N. P. Penkin, & L. N. Shabanova, Resonance Broadening and Lifetime of 3 $^1P^o_1$ Level of Mg I, Opt. Spectrosc. (USSR) 41, 425.

2856. A. V. Demura, V. S. Lisitsa, & G. V. Sholin, Theory of Thermal Corrections to Stark Profiles of Hydrogen Lines, Ordena Lenina Institut Atomnoi Energii im. I. V. Kurchatova Report IAE 2672. (Russ.)

1976

2857. A. Flusberg, T. Mossberg, & S. R. Hartmann, Hyperfine Structure, Isotopic Level Shifts, and Pressure Self-Broadening of the 7^2P States of Natural Thallium by Doppler-Free Two-Photon Absorption, Phys. Rev. A 14, 2146; 15, 2130 (1977).

1977

2876. S. P. Andreev & V. S. Lisitsa, Resonance Broadening in a Strong Light Field, Sov. Phys.--JETP 45, 38.

2877. J. P. Apruzese, J. Davis, & K. G. Whitney, Some Effects of Radiative and Collisional Broadening on Line Emission in a Spherical,Laser-Heated Plasma, J. Quant. Spectrosc. Radiat. Transfer 17, 557.

2878. M. E. Bacon, The Asymmetry of Ly-α and Ly-β, J. Quant. Spectrosc. Radiat. Transfer 17, 501.

2879. M. E. Bacon, A. J. Barnard, & F. L. Curzon, Measurement of Stark Broadened Profile of He II 4686 Å, J. Quant. Spectrosc. Radiat. Transfer 18, 399.

2880. N. Baeck, P. Dingens, & H. Steyaert, Analysis of the Solar Spectrum Using Voigt Profiles, Bull. Cl. Sci., Acad. R. Belg. 63, 499.

2881. E. A. M. Baker & D. D. Burgess, Observations of Quantum-Mechanical Interference Effects in the Wings of Electron-Impact-Broadened Lines of Ionized Emitters, J. Phys. B 10, L177.

2882. J. M. Bassalo & M. Cattani, Stark Broadening of the Lines 4121 Å and 4437 Å of Helium in a Plasma: Quantum-Mechanical Calculations for the Electron Impact Effects, Can. J. Phys. 55, 240.

2883. F. Bastien & E. Marode, Stark Broadening of H_α and H_β in Ionized Gases with Space-Charged Field, J. Quant. Spectrosc. Radiat. Transfer 17, 453.

2884. F. Bastien & E. Marode, Direct Measurement of Current Density from Stark Broadening of Hydrogen Lines in an Ionized Gas with a Quasi-Uniform Macroscopic Field, Rev. Phys. Appl. 12, 1121. (Fr.)

2885. J. F. Baur & J. Cooper, A Shock Tube Study of Line Broadening in a Temperature Range of 6100 to 8300 K, J. Quant. Spectrosc. Radiat. Transfer 17, 311.

2886. W. E. Baylis, Three-Body Alkali-Noble-Gas Interactions and Secondary Satellites, J. Phys. B 10, L477.

2887. E. M. Belenov, M. V. Danileiko, A. P. Nedavnii, & M. T. Shpak, Frequency Shifts in Stabilized Gas Lasers, Ukr. Fiz. Zh. (Russ. Ed.) 22, 1765. (Russ.)

2888. Y. Ben-Aryeh, E. Weissman, & A. Postan, A Translational Heat-Bath Model for Foreign Gas Broadening of Spectral Lines--I. Variational Methods, J. Quant. Spectrosc. Radiat. Transfer 18, 597.

2889. R. D. Bengtson & A. Sanchez, Observations of Plasma Wave States, Proc. Indian Acad. Sci., Sect. A 86, 223.

2890. E. Bernabeu, F. Garcia Peralta, & J. M. Alvarez, Pressure Effects of Helium, Neon, and Argon on the Hyperfine Structure of the First Doublet of Cesium, J. Opt. Soc. Am. 67, 24.

2891. A. Bielski, J. Karwowski, & J. Wolnikowski, A Numerical Method for Separation of Overlapping Components of a Spectral Line, Opt. Commun. 23, 362.

2892. R. J. Bieniek, Uniform Semiclassical Methods of Analyzing Undulations in Far-Wing Line Spectra, Phys. Rev. A 15, 1513.

2893. F. Biraben, B. Cagnac, E. Giacobino, & G. Grynberg, Broadening and Shift of the Sodium 3S-4D and 3S-5S Two-Photon Lines Perturbed by Noble Gases, J. Phys. B 10, 2369.

2894. C. Bousquet & N. Bras, Broadening and Shift of the 1849 Å Absorption Line of Mercury in the Presence of Rare Gases, J. Phys. (Paris) 38, 139. (Fr.)

2895. Ph. Cahuzac & R. Damaschini, Pressure Effects in a Saturated Absorption Experiment on the 587.5 nm Helium Line, Opt. Commun. 20, 111.

2896. H. Capes & D. Voslamber, Spectral Line Profiles in Weakly Turbulent Plasmas, Phys. Rev. A 15, 1751.

2897. J. L. Carlsten, A. Szöke, & M. G. Raymer, Collisional Redistribution and Saturation of Near-Resonance Scattered Light, Phys. Rev. A 15, 1029.

2898. Y. S. Chang & J. H. Shaw, A Nonlinear Least Squares Method of Determining Line Intensities and Halfwidths, Appl. Spectrosc. 31, 213.

1977

2899. W. E. Chase & R. H. Lambert, Hyperfine Density Shifts of ^{107}Ag in He, Ne, Ar, and N_2. V, Phys. Rev. A 15, 1352.

2900. M. R. Cherkasov, Pressure Broadening of Overlapping Spectral Lines. 2: Refinement of the Method. Criteria for Overlapping, Opt. Spectrosc. (USSR) 42, 24.

2901. B. Cheron, R. Scheps, & A. Gallagher, Noble-Gas Broadening of the 6 $^2P_{1/2}$-7 $^2S_{1/2}$ (377.6 nm) 6 $^2P_{3/2}$-7 $^2S_{1/2}$ (535 nm) Thallium Lines, Phys. Rev. A 15, 651.

2902. W. T. Chiang, D. P. Murphy, Y. G. Chen, & H. R. Griem, Electron Densities from Stark Widths of the He I 5016 Å and He I 3889 Å Lines and Helium-Neon Laser Interferometry, Z. Naturforsch., Teil A 32, 818.

2903. Yu. I. Chutov & V. A. Zhovtyanskii, Method of Recording Profiles of Spectral Lines with High Time Resolution, Instrum. Exp. Tech. (USSR) 20, 1166.

2904. M. L. Citron, H. R. Gray, C. W. Gabel, & C. R. Stroud, Jr., Experimental Study of Power Broadening in a Two-Level Atom, Phys. Rev. A 16, 1507.

2905. C. Cohen-Tannoudji, Effect of a Non-Resonant Irradiation on Atomic Energy Levels--Application to Light Shifts in Two-Photon Spectroscopy and to Perturbation of Rydberg States, Metrologia 13, 161.

2906. D. A. Coombe & R. F. Snider, Collision Models for Spectral Line Shapes: Explicit Parity Considerations, Chem. Phys. Lett. 48, 145.

2907. S. B. Crampton, E. C. Fleri, & H. T. M. Wang, Effects of Atomic Resonance Broadening Mechanisms on Atomic Hydrogen Maser Long-Term Frequency Stability, Metrologia 13, 131.

2908. M. Dakhil & J. F. Kielkopf, Observation of Collision-Induced 6s-ns Transitions in the Absorption Spectrum of Cesium in the Presence of Xenon, J. Opt. Soc. Am. 67, 844.

2909. J. J. Damelincourt, D. Karabourniotis, L. Scoarnec, & P. Herbet, Determination of the Transition Probability and Stark Constant for the 546.1 nm Hg Line, "Proceedings of the Thirteenth International Conference on Phenomena in Ionized Gases," 127 (East Berlin).

2910. S. Dattagupta, Effect of Collisions on Spectral Lines in Gases, Pramana 9, 203.

2911. C. C. Davis & R. A. McFarlane, Line Shape Effects in Atomic Absorption Spectroscopy, J. Quant. Spectrosc. Radiat. Transfer 18, 151.

2912. E. O. Degenkolb & J. E. Griffiths, Electron Density, Temperature, and Local Thermodynamic Equilibrium in Low-Voltage Low-Current Break Arcs: Magnesium, J. Opt. Soc. Am. 67, 1235.

2913. A. V. Demura, V. S. Lisitsa, & G. V. Sholin, Effect of Reduced Mass in Stark Broadening of Hydrogen Lines, Zh. Eksp. Teor. Fiz. 73, 400. (Russ.)

2914. C. S. Diatta, Study of Spectral Line Profiles of the Helium Atom, Broadened and Shifted by the Stark Effect in an Arc Plasma, Thesis, Universite d'Orleans. (Fr.)

2915. C. A. van Dijk, Excitation Profiles of the Sodium D-Doublet in an H_2-O_2-Ar Flame, Opt. Commun. 22, 343.

2916. M. S. Dimitrijevic & P. Grujic, Curvilinear Trajectories and Stark Broadening of Hydrogen Lines, "Proceedings of the Thirteenth International Conference on Phenomena in Ionized Gases," 131 (East Berlin).

2917. R. D. Driver & G. Lombardi, A Measurement of the Width and Shift of the Fe I 3719.94 Å Line Broadened by Helium, Astron. Astrophys. 59, 299.

2918. B. Dubreuil & J. Chapelle, Shift of the 4^3S-2^3P Line of Helium Atom Irradiated by a CW CO_2 Laser Beam, Phys. Lett. A 60, 115.

2919. P. Ewart, Pressure Shifts of $^1D_2$ Rydberg States of Mg I, Phys. Lett. A 61, 383.

2920. N. Feautrier & N. Tran Minh, A Simple Quantum Theory of Stark Broadening of Hydrogen Lines Including Short-Range Interactions. Application to Ly-α, J. Phys. B 10, 3427.

2921. J. Fiutak & R. Horodecki, On the Pressure Broadening of the Molecular Spectra. I. The Liouville Space Methods, Acta Phys. Pol. A 51, 301.

2922. C. Fleurier, S. Sahal-Brechot, & J. Chapelle, Stark Profiles of Some Ion Lines of Alkaline Earth Elements, J. Quant. Spectrosc. Radiat. Transfer 17, 595.

2923. C. Fleurier, S. Sahal-Brechot, & J. Chapelle, Stark Profiles of Al I and Al II Lines, J. Phys. B 10, 3435.

1977

2925. A. Gallagher & T. Holstein, Collision-Induced Absorption in Atomic Electronic Transitions, Phys. Rev. A 16, 2413.

2926. A. P. Galtsev, Derivation of the Dipole Moment Correlation Function in the Theory of Spectral Line Broadening by Pressure, Opt. Spectrosc. (USSR) 42, 151.

2927. S. Ganapathy & V. Parthasarathi, A Revised Tabulation of the Voigt Profile, Indian J. Pure Appl. Phys. 15, 63.

2928. J. C. Gay, Excitation Transfer, Broadening, and Shift of the Lines in Nearly Resonant Collisions Between Two Isotopes, J. Phys. B 10, 1269.

2929. D. N. Ghosh Roy, Vacuum Ultraviolet Measurements of the Emission Profiles of the Argon 1435.93 Å Ar II Line, J. Quant. Spectrosc. Radiat. Transfer 17, 701.

2930. V. M. Gradov, A. A. Mak, & A. A. Shcherbakov, Calculation of the Optical Properties of a Xenon Plasma with Consideration of the Effect of Wall Erosion Products, Opt. Spectrosc. (USSR) 43, 120.

2931. R. Granier, G. Charton, & J. Granier, Theoretical and Experimental Studies of the Interatomic Spectrum Induced in the Mixture Rb-Xe, J. Quant. Spectrosc. Radiat. Transfer 18, 637.

2932. S. Green, L. Monchick, R. Goldflam, & D. J. Kouri, Computational Tests of Angular Momentum Decoupling Approximations for Pressure Broadening Cross Sections, J. Chem. Phys. 66, 1409.

2933. H. R. Griem, Close Collision Contributions to the Stark Broadening of Neutral Helium Lines in a Plasma, J. Phys. B 10, L53.

2934. K. Grützmacher & B. Wende, Discrepancies Between the Stark-Broadening Theories of Hydrogen and Measurements of Lyman-α Stark Profiles in a Dense Equilibrium Plasma, Phys. Rev. A 16, 243.

2935. T. Grycuk, Some Remarks on the Interpretation of Satellites of the Mercury 2537 Å Line in the Presence of Noble Gases, Chem. Phys. Lett. 50, 309.

2936. V. Ts. Gurovich & V. S. Engel'sht, Spectrum of Hydrogen Plasma at the Series Limit, Sov. Phys.--JETP 45, 232.

2937. C. D. Harper & M. D. Levenson, Measurement of the Diamagnetic Zeeman Shift of Potassium S and D Rydberg States, Opt. Commun. 20, 107.

2938. S. Hess & A. Mörtel, Doppler Broadened Spectral Functions and Time Correlation Functions for a Gas in Non-Equilibrium, Z. Naturforsch., Teil A 32, 1239.

2939. J. D. Hey, On the Stark Broadening of Isolated Lines of F II and Cl III by Plasmas, J. Quant. Spectrosc. Radiat. Transfer 18, 649.

2940. J. D. Hey, Estimates of Stark Broadening of Some Si II Lines, J. Quant. Spectrosc. Radiat. Transfer 18, 425.

2941. J. D. Hey, Estimates of Stark Broadening of Some Ar III and Ar IV Lines, J. Quant. Spectrosc. Radiat. Transfer 17, 729.

2942. J. D. Hey, The Role of the Oscillator Strength in the Determination of Plasma Densities, J. Quant. Spectrosc. Radiat. Transfer 17, 721.

2943. J. D. Hey & R. J. Bryan, Estimates of Stark Broadening of Oxygen Ion Lines, J. Quant. Spectrosc. Radiat. Transfer 17, 221.

2944. I. Hirano, Spectrum of the Rb-D Line in the Case of a Spherical Lamp, Rev. Phys. Appl. 12, 1253. (Fr.)

2945. Tj. Hollander, B. J. Jansen, & C. Th. J. Alkemade, Wing Profile Measurements of the Resonance Emission Lines of Na (5890.96 Å) and Sr (4607 Å) in Flames, J. Quant. Spectrosc. Radiat. Transfer 17, 657.

2946. B. Hüttner & L. Knöll, On the Theory of the Combined Influence of Collision and Doppler Broadening on the Shape of Spectral Lines, Acta Phys. Pol. A 52, 135.

2947. T. W. Hussey, J. W. Dufty, & C. F. Hooper, Jr., Dynamic Screening Effects in Plasma Line Broadening, Phys. Rev. A 16, 1248.

2948. S. L. Izotova, A. I. Kantserov, & M. S. Frish, Measurement of the Shift and Broadening of STS Components of a Rubidium Line in the Presence of Krypton, Opt. Spectrosc. (USSR) 42, 120.

2949. B. J. Jansen, Tj. Hollander, & C. Th. J. Alkemade, Dependence of the Spectral Width of the Self-Absorbed Sr 4607.33 Å Resonance Line on Sr Atomic Density in a Flame, J. Quant. Spectrosc. Radiat. Transfer 17, 663.

2950. B. J. Jansen, Tj. Hollander, & C. Th. J. Alkemade, Some Observations on the Collisional Broadening and Shift of the Sr 4607.33 Å Line in H_2/O_2/Ar Flames, J. Quant. Spectrosc. Radiat. Transfer 17, 187.

1977

2951. B. J. Jansen, Tj. Hollander, & C. Th. J. Alkemade, Comparison of Emission and Absorption Core Profiles of Sr and Ba Resonance Lines in an Air-Acetylene Flame, J. Quant. Spectrosc. Radiat. Transfer 17, 695.

2952. L. A. Jones, E. Källne, & D. B. Thomson, High Density Measurements of the Stark Broadened Profile of the He II 4686 Å Line, J. Quant. Spectrosc. Radiat. Transfer 17, 175.

2953. K. Kawasaki, Measurements of He I Line Profiles with Forbidden Components Induced by Fluctuating Fields in a Small Theta Pinch Plasma, J. Phys. Soc. Jpn. 43, 648.

2954. D. E. Kelleher, Stark Broadening of Neutral Helium Lines in a Plasma, Thesis, University of Maryland.

2955. S. H. Kim, Effect of High-Frequency Electric Fields on Optically Excited Atoms in a Magnetoactive Plasma, Nuovo Cimento B 41, 345.

2956. S. H. Kim, Stark Effect and Four-Quantum Transitions in Three-Dimensional Fields in a Plasma, Nuovo Cimento B 41, 334.

2957. L. Klein, M. Giraud, & A. Ben-Reuven, Collision Broadening in Lamb-Dip Spectroscopy, Phys. Rev. A 16, 289.

2958. P. Klein & D. Meiners, Measurement of Width and Shift of Rare Gas Lines Emitted from a Shock-Tube Plasma, J. Quant. Spectrosc. Radiat. Transfer 17, 197.

2959. A. N. Klucharev, A. V. Lazarenko, G. Pichler, & M. Movre, Emission Measurements in the Wing of the Self-Broadened Cs Resonance Lines, Phys. Lett. A 61, 104.

2960. W. Kohsiek, On the Branching Ratios of Several Pairs of He II Lines, J. Quant. Spectrosc. Radiat. Transfer 17, 651.

2961. N. Kuramochi, T. Matsuo, I. Matsuda, & H. Fukuyo, Spectral Profiles of the ^{87}Rb D_1 Line Emitted from a Spherical Electrodeless Lamp, Jpn. J. Appl. Phys. 16, 673.

2962. H. J. Kusch, G. Röndigs, & K. Wendt, Influence of Spectral Resolution on Absorption Line Profiles, J. Quant. Spectrosc. Radiat. Transfer 17, 53.

2963. I. Lakicevic, J. Puric, & J. Labat, Stark Parameters of Rubidium Resonance Lines, "Proceedings of the Thirteenth International Conference on Phenomena in Ionized Gases," 123 (East Berlin).

2964. K. S. Lam, Application of Pressure Broadening Theory to the Calculation of Atmospheric Oxygen and Water Vapor Microwave Absorption, J. Quant. Spectrosc. Radiat. Transfer 17, 351.

2965. E. Leboucher, Nguyen-Hoe, & R. Lennuier, On the Time Development Operator of the Atomic States Occurring in the Analysis of Line Profiles Emitted by Gases, J. Phys. (Paris) 38, 1361. (Fr.)

2966. A. Lesage, S. Sahal-Brechot, & M. H. Miller, Stark Broadening of Singly Ionized Silicon, Phys. Rev. A 16, 1617.

2967. V. S. Lisitsa, Stark Broadening of Hydrogen Lines in Plasmas, Sov. Phys.--Usp. 20, 603.

2968. J. D. Litke, Spontaneous Atomic Line Shapes from an Argon Ion Laser Discharge, J. Quant. Spectrosc. Radiat. Transfer 17, 411.

2969. J. Lorenzen & K. Niemax, Absorption Measurements of the Principal Series Lines of Cs Broadened by Xe, Z. Naturforsch., Teil A 32, 853.

2970. R. J. Lovett & M. L. Parsons, Implications of a Speed Dependent Modified Voigt Function in Atomic Absorption Spectrometry, Spectrochim. Acta, Part B 32, 421.

2971. S. C. M. Luijendijk, On the Shape of Pressure-Broadened Absorption Lines in the Microwave Region. I. Deviations from the Lorentzian Line Shape, J. Phys. B 10, 1735.

2972. A. R. Malvern, The Pressure Broadening of Calcium Perturbed by Inert Gases, J. Phys. B 10, L593.

2973. D. G. McCartan & N. Lwin, Correlations Between Doppler and Collision Broadening in Neutral-Atom Line Broadening, J. Phys. B 10, L17.

2974. J. Mercier & C. R. Neufeld, Spectroscopic Measurements on a High-Density Z-Pinch Plasma, J. Appl. Phys. 48, 4498.

2975. M. H. Miller, R. D. Bengtson, & R. A. Roig, Stark Shift in Ionized Boron, Phys. Rev. A 15, 675.

2976. M. Movre & G. Pichler, Resonance Interaction and Self-Broadening of Alkali Resonance Lines. I. Adiabatic Potential Curves, J. Phys. B 10, 2631.

2977. M. H. Nayfeh, G. S. Hurst, M. G. Payne, & J. P. Young, Collisional Line Broadening Using Laser Excitation and Ionization, Phys. Rev. Lett. 39, 604.

2978. K. Niemax, Broadening and Oscillator Strengths of Cs Quadrupole Lines, J. Quant. Spectrosc. Radiat. Transfer 17, 125.

2979. G. Nienhuis, Rate Equation Describing the Interaction of Atoms with a Radiation Field in a Perturber Gas, Physica C (Amsterdam) 85, 151.

2980. G. Nienhuis & F. Schuller, Collisional Redistribution of Fluorescence Radiation, Physica C (Amsterdam) 92, 397.

2981. G. Nienhuis & F. Schuller, Collision and Doppler Broadening of Fluorescence and Raman Scattering from Atoms, Physica C (Amsterdam) 92, 409.

2982. H. Nubbemeyer & B. Wende, Experimental Stark Widths and Shifts of UV and VUV Carbon I Lines (Resonance Transitions 2p3s $^3P^o_{0,1,2}$ - $2p^2\ ^3P_{0,1,2}$ and Transitions to Low-Lying Quantum States), Phys. Rev. A 16, 627.

2983. R. Okasaka, M. Nagashima, & K. Fukuda, Line Broadening Measurement in High Density Plasma. I. H_α and H_β, J. Phys. Soc. Jpn. 42, 1339.

2984. E. A. Oks & G. V. Sholin, Effect of Anisotropy in Plasma Noise on the Stark Profiles of Hydrogen Spectral Lines, Opt. Spectrosc. (USSR) 42, 434.

2985. J. J. Olivero & R. L. Longbothum, Empirical Fits to the Voigt Line Width: A Brief Review, J. Quant. Spectrosc. Radiat. Transfer 17, 233.

2986. A. Omont & P. Encrenaz, The Broadening of Carbon Lines in Molecular Clouds, Astron. Astrophys. 56, 447.

2987. L. E. Pargamanik & M. D. Ginzburg, Theory of the Combined Influence of Electrons and Ions on the Shape of Hydrogen Lines in a Plasma, Ukr. Fiz. Zh. 22, 1611. (Russ.)

2988. J. H. Pierluissi, P. C. Vanderwood, & R. B. Gomez, Fast Calculational Algorithm for the Voigt Profile, J. Quant. Spectrosc. Radiat. Transfer 18, 555.

2989. M. Platisa, M. Dimitrijevic, M. Popovic, & N. Konjevic, Stark Broadening of Si III and Si IV Lines, J. Phys. B 10, 2997.

2990. M. Platisa, M. Dimitrijevic, M. Popovic, & N. Konjevic, Stark Broadening of F II and Cl III Lines, Astron. Astrophys. 54, 837.

2991. M. Platisa & N. Konjevic, Stark Broadening of Ne II Lines, "Proceedings of the Thirteenth International Conference on Phenomena in Ionized Gases," 121 (East Berlin).

2992. A. Poquerusse, New Presentation of Stark Broadening Functions of Isolated Ionic Lines, Phys. Lett. A 59, 438. (Fr.)

2993. A. Postan, E. Weissman, & Y. Ben-Aryeh, A Translational Heat Bath Model for Foreign Gas Broadening of Spectral Lines--II. The T Approximation, J. Quant. Spectrosc. Radiat. Transfer 18, 617.

2994. R. C. Preston, Spectroscopic Studies of the Stark-Broadened Wings of Lyman-α, J. Phys. B 10, 523.

2995. R. C. Preston, Spectroscopic Studies of a Plasma Temperature and Radiation Standard Based on a Wall-Stabilized Arc, J. Quant. Spectrosc. Radiat. Transfer 18, 337.

2996. J. Puric, J. Labat, Lj. Cirkovic, I. Lakicevic, & S. Djenize, Stark Broadening and Shift of Alkali-Metal Resonance Spectral Lines, J. Phys. B 10, 2375.

2997. J. Puric, I. Lakicevic, J. Labat, S. Djenize, & Lj. Cirkovic, Stark Widths and Shifts of Some Neutral Fluorine Spectral Lines, Phys. Lett. A 63, 243.

2998. E. N. Ragozin, Determination of the Electron Density Profile of a Laser Plasma from the Stark Broadening of Spectral Lines in Vacuum Ultraviolet, Sov. J. Quantum Electron. 7, 1296.

2999. W. T. Rawlins & F. Kaufman, Characteristics of O I and N I Resonance Line Broadening in Low Pressure Helium Discharge Lamps, J. Quant. Spectrosc. Radiat. Transfer 18, 561.

3000. V. N. Rebane, Theory of Impact Broadening of Spectral Lines of Atoms with Consideration for Hyperfine Structure, Opt. Spectrosc. (USSR) 42, 123.

3001. V. N. Rebane, Dependence of Broadening and Shift of a Spectral Line on the Polarization Under Anisotropic Collisions, Opt. Spectrosc. (USSR) 43, 117.

3002. E. Roueff, Broadening, Shift, and Depolarization of the Second Resonance Doublet of Potassium Perturbed by Rare Gases, J. Phys. (Paris), Lett. 38, L-307.

1977

3003. E. Roueff & H. Abgrall, Depolarization, Broadening, and Shift of the Rb $5\ ^2P_{1/2} \rightarrow 5\ ^2S_{1/2}$ Resonance Line Perturbed by Rare Gases, J. Phys. (Paris) 38, 1485.

3004. B. F. Rozsnyai, Spectral Lines in Hot Dense Matter, J. Quant. Spectrosc. Radiat. Transfer 17, 77.

3005. A. Sanchez & R. D. Bengtson, Observation of Stark Broadening of Helium in a Turbulent Plasma, Phys. Rev. Lett. 38, 1276.

3006. H. Schulz, Asymmetries of Hydrogen Lines and the Measurement of Gravitational Redshifts in White Dwarf Spectra, Astron. Astrophys. 54, 315.

3007. J. Seidel, Hydrogen Stark Broadening by Model Electronic Microfields, Z. Naturforsch., Teil A 32, 1195.

3008. J. Seidel, Effects of Ion Motion on Hydrogen Stark Profiles, Z. Naturforsch., Teil A 32, 1207.

3009. N. Sidell & S. Y. Ch'en, Pressure Effects of Ar and He on the First Two Members of the Balmer Series of Hydrogen, J. Quant. Spectrosc. Radiat. Transfer 17, 117.

3010. R. P. Srivastava & H. R. Zaidi, The Role of Short Range Interaction in Molecular Collision Broadening, Can. J. Phys. 55, 533.

3011. P. J. Statham, Deconvolution and Background Subtraction by Least-Squares Fitting with Prefiltering of Spectra, Anal. Chem. 49, 2149.

3012. J. O. Stenflo & L. Lindegren, Statistical Analysis of Solar Fe I Lines: Magnetic Line Broadening, Astron. Astrophys. 59, 367.

3013. J. Szudy & W. E. Baylis, Asymmetry in Pressure-Broadened Spectral Lines, J. Quant. Spectrosc. Radiat. Transfer 17, 681.

3014. J. E. Thomas, M. J. Kelly, J.-P. Monchalin, N. A. Kurnit, & A. Javan, Transit Time Effects in Power-Broadened Doppler-Free Saturation Resonances, Phys. Rev. 15, 2356.

3015. R. J. Tighe & C. F. Hooper, Jr., Low-Frequency Electric Microfield Distributions in a Plasma Containing Multiply-Charged Ions: Extended Calculations, Phys. Rev. A 15, 1773.

3016. E. I. Toader, C. B. Collins, B. W. Johnson, & M. Y. Mirza, Molecular Satellites of the 6^2S-7^2P Doublet of Cesium, Phys. Rev. A 16, 1490.

3017. G. Tondello, E. Jannitti, & A. M. Malvezzi, Line Broadening and Self-Absorption of Be IV in a Laser-Produced Plasma, Phys. Rev. A 16, 1705.

3018. O. Vallee, P. Ranson, & J. Chapelle, Measurements of Broadening of Argon Lines and Oscillator Strengths of Resonance Lines, J. Quant. Spectrosc. Radiat. Transfer 18, 327.

3019. J. C. Valognes & P. Mergault, Broadening of the Li I (2p-4d, 4f, 4p) Line in an Electrolytic Plasma, J. Phys. (Paris) 38, 905. (Fr.)

3020. P. A. Voigt & J. R. Roberts, Measured Stark Widths and Shifts for Neutral Phosphorus Lines, Phys. Rev. A 15, 1006.

3021. L. M. Volkova, A. M. Devyatov, & V. Kh. Fazlaev, Determination of the Temperature and Concentration of Strontium Atoms and Ions in a Cooled Hollow Cathode Discharge by the Profiles of Spectral Lines, Vestn. Mosk. Univ., Fiz. Astron. 18, No. 2, 20. (Russ.)

3022. D. Voslamber, Effect of Emitter-Ion Dynamics on the Line Core of Lyman-α, Phys. Lett. A 61, 27.

3023. B. Yaakobi, D. Steel, E. Thorsos, A. Hauer, & B. Perry, Direct Measurement of Compression of Laser-Imploded Targets Using X-Ray Spectroscopy, Phys. Rev. Lett. 39, 1526.

3024. H. R. Zaidi, Resonance Broadening in High Density Gases, Can. J. Phys. 55, 1243.

3025. D. Zechev, R. Dyulgerova, & R. Angelova, Inhomogenities in the Shape of the He 504.7 nm Line Excited in a Hollow Cathode Discharge, J. Quant. Spectrosc. Radiat. Transfer 17, 165.

3026. G. V. Zhuvikin, N. P. Penkin, & L. N. Shabanova, Broadening of the 285.2 nm Line of Atomic Magnesium by Inert Gases, Opt. Spectrosc. (USSR) 42, 134.

1978

3047. N. F. Allard, Alkali-Rare-Gas Line Profiles in a Square-Well Potential Approximation. I. Satellites, J. Phys. B 11, 1383.

3048. T. Andersen, The Differential Equations of the Voigt Function, J. Quant. Spectrosc. Radiat. Transfer 19, 169.

3049. T. Bach, Stark Broadening of the Al Resonance Lines, J. Quant. Spectrosc. Radiat. Transfer 19, 483.

3050. T. Bach, Oscillator Strengths and Stark Broadening for Al Transitions, Z. Phys. A 285, 1.

3051. Z. Ben Lakhdar, D. Perrin, & R. Lennuier, On the Interaction Potentials of Hg (6 $^1S_0$) and Hg (6 $^3P_1$) with Rare Gases, J. Phys. (Paris) 39, 137. (Fr.)

3052. M. Berard & P. Lallemand, Influence of the Use of Approximate Trajectories for Binary Collision Calculations, J. Quant. Spectrosc. Radiat. Transfer 19, 387.

3053. C. Brechignac, R. Vetter, & P. R. Berman, Study of Velocity-Changing Collisions in Excited Kr Using Saturation Spectroscopy, Phys. Rev. A 17, 1609.

3054. A. Byerley, R. W. P. McWhirter, & R. Wilson, The Spectroscopy of Plasmas Carrying Sound Waves. II. Spectral Line Profiles, J. Phys. B 11, 613.

3055. Ph. Cahuzac, E. Marie, O. Robaux, R. Vetter, & P. R. Berman, The Effect of Velocity-Changing Collisions Upon Saturated Absorption Profiles: The Laser Line of Xenon at λ = 3.51 μm, J. Phys. B 11, 645.

3056. J. L. Chotin, J. L. Lemaire, J. P. Marque, & F. Rostas, Measurement of the Ion-Mass Effect on the Central Structure of H_β in a Plasma Produced by a Combustion-Drive Shock Tube, J. Phys. B 11, 371.

3057. F. C. M. Coolen & N. van Schaik, Profiles of the Absorption D-Lines of Sodium in Neon Observed with a Single-Mode Dye Laser, Physica C (Amsterdam) 93, 261.

3058. R. U. Datla & H. R. Griem, Stark Profile Measurements on Lyman Series Lines of Al XIII, Phys. Fluids 21, 505.

3059. J. Davidson, D. R. Wells, L. G. Phadke, J. G. Hirschberg, J. Tunstall, & P. E. Ziajka, Simultaneous Electron Density and Ion Temperature Measurements of a Moderately Dense Plasma Using Doppler and Stark Broadened He II Lines, Appl. Opt. 17, 1481.

1978

3060. A. E. DePristo & H. Rabitz, Scaling Theoretic Deconvolution of Bulk Relaxation Data: State-to-State Rates from Pressure-Broadened Line Widths, J. Chem. Phys. 68, 1981.

3061. M. S. Dimitrijevic & P. Grujic, Long-Range Potentials and Stark Broadening of Neutral Lines, J. Quant. Spectrosc. Radiat. Transfer 19, 407.

3062. N'D. Ebby & S. Weniger, Broadening and Shift of Lines of the Principal Series of Neutral Lithium Atom Produced by Collision with Helium and Argon, J. Quant. Spectrosc. Radiat. Transfer 19, 247.

3063. H. Ehrich & D. E. Kelleher, Hydrogen Fine-Structure Effects at Low Electron Densities, Phys. Rev. A 17, 1686.

3064. W. E. Ernst, B.-H. Müller, & Th. Zaengel, Stark Broadening of Neutral Krypton Lines, Physica C (Amsterdam) 93, 414.

3065. H. R. Griem, Broadening of the Lyman-α Lines of Hydrogen and Hydrogenic Ions in Dense Plasmas, Phys. Rev. A 17, 214.

3066. P. S. Herman & K. M. Sando, Theoretical Study of Wings of Resonance Lines of Lithium and Sodium Perturbed by Rare Gases, J. Chem. Phys. 68, 1153.

3067. A. K. Hui, B. H. Armstrong, & A. A. Wray, Rapid Computation of the Voigt and Complex Error Functions, J. Quant. Spectrosc. Radiat. Transfer 19, 509.

3068. J. Kielkopf, The Interaction of Excited States of Barium with Xenon Atoms Determined by Spectral Line Contour Measurements, J. Phys. B 11, 25.

3069. S. H. Kim, Stark Shift and Line Broadening in Three-Dimensional Stochastic Fields of a Helium Plasma, Nuovo Cimento B 44, 409.

3070. R. W. Lee, Plasma Line Broadening of the Lyman-α Transition Including Ion Dynamics, J. Phys. B 11, L167.

3071. R. E. Loughhead, R. J. Bray, & N. Brown, Instrumental Profile of a Triple Fabry-Perot Interferometer for Use in Solar Spectroscopy, Appl. Opt. 17, 415.

3072. Y. Mizuta & A. Ohno, Stochastic Theory of He I Satellite Line Shape in a Plasma, J. Phys. Soc. Jpn. 44, 627.

3073. E. S. Mukhtar, H. J. Baker, & T. A. King, Pressure Induced Frequency Shifts in the Atomic Iodine Laser, Opt. Commun. 24, 167.

3074. A. Postan & Y. Ben-Aryeh, A Translational Heat Bath Model for Foreign Gas Broadening of Spectral Lines--III. W. K. B. Approximation for Satellite Bands, J. Quant. Spectrosc. Radiat. Transfer 19, 431.

3075. M. M. Salour, Isotopic Shift, Pressure Shift, and Pressure Broadening of the 7d' States of Neon Using Doppler-Free Two-Photon Absorption Spectroscopy, Phys. Rev. A 17, 614.

3076. B. Sayer, M. Ferray, J. P. Visticot, & J. Lozingot, Bands Associated with Cs (6 $^2S_{1/2}$)-Cs (7 $^2S_{1/2}$ and 5 $^2D_{5/2}$) Transitions Perturbed by Helium, J. Chem. Phys. 68, 3618.

3077. R. J. Tighe & C. F. Hooper, Jr., Stark Broadening in Hot, Dense, Laser-Produced Plasmas: A Two-Component, Two-Temperature Formulation, Phys. Rev. A 17, 410.

3078. W. P. West & A. Gallagher, Pressure Dependence of Na Resonance Line Broadening by Kr and Xe, Phys. Rev. A 17, 1431.

3079. W. P. West, P. Shuker, & A. Gallagher, The Effects of Multiperturber Interactions on the Sodium-Rare Gas Excimer Bands, J. Chem. Phys. 68, 3864.

3080. K. Yamamoto & H. Narumi, On the Complex Level Shift of Spectral Lines in Plasmas, J. Phys. Soc. Jpn. 44, 349.

3081. A. T. Young, Line Shifts Due to Blending, J. Opt. Soc. Am. 68, 246.

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5. ERRATA

Reference No.*	Corrections or Additions to NBS Special Publication 366, Supplement 2 (1975)
2243	In Part 3, an English translation to the previously cited Russian work is provided. This translation, found in J. Appl. Spectrosc. (USSR) 18, 103 (1973), is also incorporated into this supplement.
2362	In Part 3, add the reference Phys. Rev. A 16, 1337 (1977). This erratum is incorporated into this supplement.
2408	In Part 3, an English translation to the previously cited Russian work is provided. This translation, found in J. Appl. Spectrosc. (USSR) 20, 673 (1974), is also incorporated into this supplement.
2491	In Part 3, add the reference Astron. Astrophys. 41, 119 (1975). This erratum is incorporated into this supplement. The entire reference is also given a new number--2561.
2516	In Part 3, add the reference Astron. Astrophys. 46, 149 (1976). This erratum is incorporated into this supplement. The entire reference is also given a new number--2644.

*The numbers refer to paper identification numbers of Part 3 of the second supplement to the original bibliography.

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NBS-114A (REV. 7-73)

U.S. DEPT. OF COMM. BIBLIOGRAPHIC DATA SHEET	1. PUBLICATION OR REPORT NO. NBS SP-366, Supplement 3	2. Gov't Accession No.	3. Recipient's Accession No.

4. TITLE AND SUBTITLE

Bibliography on Atomic Line Shapes and Shifts (June 1975 through June 1978)

5. Publication Date: December 1978

6. Performing Organization Code

7. AUTHOR(S) J. R. Fuhr, B. J. Miller & G. A. Martin

8. Performing Organ. Report No.

9. PERFORMING ORGANIZATION NAME AND ADDRESS

NATIONAL BUREAU OF STANDARDS
DEPARTMENT OF COMMERCE
WASHINGTON, D.C. 20234

10. Project/Task/Work Unit No. 5312120

11. Contract/Grant No.

12. Sponsoring Organization Name and Complete Address (*Street, City, State, ZIP*)

same as #9

13. Type of Report & Period Covered Interim June 1975-June 1978

14. Sponsoring Agency Code

15. SUPPLEMENTARY NOTES

Library of Congress Catalog Card Number: 72-600147

16. ABSTRACT (*A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here.*)

This is the third supplement to the NBS Special Publication 366, Bibliography on Atomic Line Shapes and Shifts (1889 through March 1972). It contains about 600 references and covers the literature from June 1975 through June 1978. As before, the bibliography contains five major parts: (1) All general interest papers are catalogued according to the broadening mechanisms (and, further, according to special topics under several of the mechanisms) and as to whether the work is a general theory, a general review, a table of profiles or parameters, a comment on existing work, a study of general experimental measurement techniques, or an experimental effort of general importance. Also included are selected papers on important applications of line broadening and on miscellaneous topics relating to atomic spectral line shapes and shifts. (2) In Part 2 all papers containing numerical data are ordered as to element, ionization stage, and broadening mechanism (in the case of foreign gas broadening the perturbing species are listed), and it is indicated whether the data are experimentally or theoretically derived. (3) While in the two preceding parts of the bibliography the references are listed for brevity by identification numbers only, in Part 3 all references are listed completely by journal, authors, and title and are generally arranged by year of publication and alphabetically by authors' names within the year. (4) This section contains a list of all authors and their papers. (5) A final section provides corrections or additions to the second supplement to the original bibliography.

17. KEY WORDS (*six to twelve entries; alphabetical order; capitalize only the first letter of the first key word unless a proper name; separated by semicolons*) Atomic; instrumental broadening; line shapes; line shifts; pressure broadening; resonance broadening; Stark broadening; van der Waals broadening.

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