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Letter
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Publications by the Staff of the X-ray Section

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SUBJECT-MATTER READING

<u>Title</u>	<u>Series</u>	<u>Price</u>
Barium sulphite as a protective material against roentgen radiation. Franklin L. Hunt, Am. Jour. Roent. & Rad. Ther. (Chas. C. Thomas, Springfield, Ill.), <u>14</u> , (1925).		
Improved form of gas type X-ray tube. L. F. Curtiss, J. O. S. A. & R. S. I. (George Banta Publishing Co., Menasha, Wisc.), <u>16</u> , 68 (1928).		
X-ray and radium protection. Recommendations of International Congress of Radiology (1929). - - - - -	C374	CP
Cathode ray dosimetry, Lauriston S. Taylor, Radiology (Bruce Publishing Co., St. Paul, Minn.) <u>12</u> , 294 (1929).		
The precise measurement of X-ray Dosage. Lauriston S. Taylor. BS J. Research, <u>2</u> , 771 (1929). - - - - - Also in Radiology (Bruce Publishing Co., St. Paul, Minn.) <u>14</u> , 372 (1930).	RP56	10¢
Continuous spectrum X-rays from thin targets. W. W. Nicholas. BS J. Research <u>2</u> , 832 (1929). - - - - -	RP60	CP
Roentgen-ray protection. Lauriston S. Taylor, Am. J. Roent. & Rad. Ther. (Chas. C. Thomas, Springfield, Ill.) <u>22</u> , 45 (1929).		
Analysis of diaphragm system for the X-ray standard ionization chamber. Lauriston S. Taylor. BS J. Research, <u>3</u> , 857 (1929). - - - - - Also in radiology (Bruce Publishing Co., St. Paul, Minn.) <u>15</u> , 49 (1930).	-RP119	10¢
The relative intensity of X-ray Satellites, Science. F. K. Richtmyer and Lauriston S. Taylor. (Science Publishing Co., Lancaster, Pa.), <u>70</u> , 616 (1929).		
The problem of international X-ray standardization, Radiology. Lauriston S. Taylor. (Bruce Publishing Co., St. Paul, Minn.), <u>14</u> , 551 (1930).		
The calibration of the "Fingerhut" ionization chamber. Lauriston S. Taylor. BS J. Research <u>4</u> , 631 (1930). - - - - - Also in Radiology <u>15</u> 227 (1930)	-RP169	5¢
Intensity of X-ray satellites. F. K. Richtmyer and L. S. Taylor. Phys. Rev. (American Institute of Physics, Lancaster, Pa.), <u>36</u> , 1044 (1930).		

<u>Title</u>	<u>Series</u>	<u>Price</u>
An improved form of standard ionization chamber. Lauriston S. Taylor and George Singer. BS J. Research, <u>5</u> , 507 (1930) - - - - - Also in Radiology (Bruce Publishing Co., St. Paul, Minn.) <u>15</u> , 637 (1930).	-RP211	10¢
Absorption measurements of the X-ray general radiation. Lauriston S. Taylor. B.S. J. Research <u>5</u> , 517 (1930)- - - - - Also in Radiology (Bruce Publishing Co., St. Paul, Minn.), <u>16</u> , 302 (1931).	-RP212	OP
Apparatus for the measurement of high constant or rippled voltages. Lauriston S. Taylor BS J. Research <u>5</u> , 609 (1930). - - - - - Also in Radiology (Bruce Publishing Co., St. Paul, Minn.), <u>16</u> , 893 (1931).	-RP217	OP
Efficiency of production of X-rays. Warren W. Nicholas. BS J. Research <u>5</u> , 843 (1930). - - - - -	-RP235	OP
Recent progress in X-ray standardization, Radiology. Lauriston S. Taylor. (Bruce Publishing Co., St. Paul, Minn.), <u>16</u> , 1 (1931).		
Further studies of the X-ray standard ionization chamber diaphragm system. Lauriston S. Taylor and G. Singer. BS J. Research, <u>6</u> , 219 (1931) - - - - - Also in Radiology (Bruce Publishing Co., St. Paul, Minn.), <u>17</u> , 104 (1931).	-RP271	10¢
Accurate measurement of small electric charges by a null method. Lauriston S. Taylor. BS J. Research, <u>6</u> , 807 (1931). - - - - - Also in Radiology (Bruce Publishing Co., St. Paul, Minn.), <u>17</u> , 294 (1931).	-RP306	OP
X-ray Protection. (1931) Superceded by H20.- - - - -	H15	OP
Measurement of Lenard rays. Lauriston S. Taylor. BS J. Research, <u>7</u> , 57 (1931) - - - - - Also in Radiology (Bruce Publishing Co., St. Paul, Minn.), <u>7</u> , 57 (1931).	RP332	10¢
X-ray protection. Lauriston S. Taylor. Am. Jour. Roent. & rad. Ther. (Chas. C. Thomas, Springfield, Ill.) <u>26</u> , 436 (1931).		
International comparison of X-ray standards. Lauriston S. Taylor. BS J. Research <u>8</u> , 9 (1932). - - - - - Also in Radiology (Bruce Publishing Co., St. Paul, Minn.), <u>18</u> , 99 (1932).	RP397	10¢

<u>Title</u>	<u>Series</u>	<u>Price</u>
An electrostatic voltmeter, Warren W. Nicholas. - BS J. Research, <u>8</u> , 111 (1932).	RP404	5¢
Note on international comparison of X-ray standards. Lauriston S. Taylor, BS J. Research <u>8</u> , 325 (1932). Also in Radiology (Bruce Publishing Co., St. Paul, Minn.), <u>8</u> , 325 (1932).	RP417	5¢
Air density corrections for X-ray ionization chambers. Lauriston S. Taylor and George Singer. BS J. Research, <u>8</u> , 385 (1932).	RP424	5¢
International comparison of roentgen-ray units. Lauriston S. Taylor. Am. Jour. Roent. & Rad. Ther. (Chas. C. Thomas, Springfield, Ill.), <u>27</u> , 884 (1932). (Semitechnical reprint of RP397, above.)		
Work of the National and International committees on X-ray and radium protection. Lauriston S. Taylor, Radiology (Bruce Publishing Co., St. Paul, Minn.), <u>19</u> , 1 (1932).		
The comparison of high voltage X-ray generators. Lauriston S. Taylor. BS J. Research, <u>9</u> , 333 (1932). Also in Am. Jour. Roent. & Rad. Ther. (Chas. C. Thomas, Springfield, Ill.), <u>29</u> , 826 (1933).	RP475	5¢
Effective applied voltage as an indicator of the radiation emitted by an X-ray tube. Lauriston S. Taylor, G. Singer and C. F. Stoneburner. BS J. Research, <u>9</u> , 561 (1932). Also in Am. Jour. Roentgen & Rad. Ther. (Chas. C. Thomas, Springfield, Ill.), <u>30</u> , 221 (1933).	RP491	OP
The measurement of low voltage X-ray intensities. Lauriston S. Taylor and C. F. Stoneburner, BS J. Research, <u>9</u> , 769 (1932).	RP505	5¢
Operation of thickwalled X-ray tubes on rectified potentials. Lauriston S. Taylor and C. F. Stoneburner. BS J. Research, <u>10</u> , 233 (1933). Also in Am. J. Roent. & Rad. Ther (1933)	RP527	OP
A remotely operated switch for roentgen dosage meters. Lauriston S. Taylor and G. A. Rheinbold, Am. Jour. Roent. & Rad. Ther. (Chas. C. Thomas, Springfield, Ill.), <u>29</u> , 416 (1933).		
X-rays, Standard Electrical Engineers Handbook, L. S. Taylor, McGraw-Hill Book, Co., (1932).		

<u>Title</u>	<u>Series</u>	<u>Price</u>
A basis for the comparison of X-rays generated by voltages of different wave forms. Lauriston S. Taylor, George Singer and C. F. Stoneburner. BS J. Research <u>11</u> , 293 (1933) - - - - - Also in Am. Jour. Roent. & Rad. Ther. (Chas. C. Thomas Springfield, Ill.), 1933.	RP592	OP
Comparison of high voltage X-ray tubes. Lauriston S. Taylor, George Singer and C. F. Stoneburner, BS J. Research <u>11</u> , 341 (1933) - - - - - Also in Am. Jour. Roent. & Rad. Ther. (Chas. C. Thomas Springfield, Ill.), 1933.	RP595	10¢
Recommendations of the Third-International Congress of Radiology relating to the protection from X-rays and Radium, Lauriston S. Taylor. (Bruce Publishing Co., St. Paul, Minn.), <u>21</u> , 212 (1933).		
Report of committee on the standardization of X-ray measurements. Lauriston S. Taylor. Radiology <u>22</u> , 289 (1934).		
Standard absorption curves for specifying the quality of X-radiation. Lauriston S. Taylor and George Singer. BS J. Research, <u>12</u> , 401 (1934) - - - - - Also Radiology, <u>22</u> , 445 (1934).	RP666	5¢
Radium protection for amounts up to 300 milligrams. Lauriston S. Taylor. (March, 1934) Superseded by H23 - - -	H18	10¢
Ionization of liquid carbon disulphide by X-rays. F. L. Mohler and Lauriston S. Taylor. J. Research NBS, <u>13</u> , 659 (1934). Also Am. J. Roentgenology, <u>34</u> , 84 (1935).		
A note on the bacteriacidal effect of X-rays. F. L. Mohler and Lauriston S. Taylor. J. Research NBS, <u>13</u> , 677 (1934) - - - Also Am. J. Roentgenology <u>34</u> , 89 (1935).	RP735	OP
Roentgen ray standards and units. Lauriston S. Taylor. Am. J. Roentgenology <u>31</u> , 815 (1934).		
International recommendations for X-ray and radium protection. Lauriston S. Taylor. Radiology <u>23</u> , 682 (1934).		
Recommendations of the International Committee for Radiological Units. Lauriston S. Taylor. Radiology <u>23</u> , 500 (1934).		
Comparison of X-ray and gamma ray dosage. Lauriston S. Taylor and F. L. Mohler. Science <u>81</u> , 318 (1935).		
Ionization of Liquids by X-ray, L. S. Taylor and F. L. Mohler, Phys. Rev., Vol. XLVII, p. 805; (1935).		

Title	Series	Price
Report of committee on standardization of X-ray measurements. L. S. Taylor and U. V. Portmann, Radiology <u>26</u> , 634 (1936).		
Determination of the saturation ionization current from high speed electrons in air. L. S. Taylor. Phys. Rev. <u>48</u> , 970 (1935).		
Note on the guarded field X-ray ionization chamber. L. S. Taylor and G. Singer. J. Research NBS <u>16</u> , 165 (1936) - - - - - Also Radiology <u>26</u> , 322 (1936).	-RP865	5¢
Absorption of X-rays by lead glasses and lead barium glasses. George Singer. J. Research NBS <u>16</u> , 233 (1936) - - - - -	-RP870	5¢
Measurements of X-rays and Radium, Chapter II of "Biological Effects of Radiation". Lauriston S. Taylor. Edited by B. H. Duggar (McGraw Hill Book Co., Inc.; New York, N.Y.) 1936.		
X-ray protection (Revision of old Handbook 15). Lauriston S. Taylor. (September 1936) Superseded by H41.	-H20	5¢
The ionization of air by Leonard rays. Lauriston S. Taylor. J. Research NBS <u>17</u> , 983 (1936) - - - - -	-RP924	5¢
Time factors in the ionization of liquid carbon bisulphide by x-rays. Lauriston S. Taylor. J. Research NBS <u>17</u> , 557 (1936) - - - - -	-RP927	10¢
The determination of X-ray quality by filter methods. Lauriston S. Taylor. Radiology <u>29</u> , 22 (1937). Also see Occasional Publication of the AAAS No. 4; Supplement to Science Vol. 85 entitled <u>Some Fundamental Aspects of the Cancer Problem</u> , p. 196 (1937). (Science Press, N. Y.).		
The measurement of X-rays with liquid ionization chambers. Lauriston S. Taylor. Radiology <u>29</u> , 323 (1937).		
Recommendation of the International committee for radiological units. Radiology <u>29</u> , 634 (1937). Also American Journal of Roentgenology and Radium Therapy <u>39</u> , 295 (1938).		
Radium Protection (Revision of old handbook 18). (April, 1938) - - - - - Also Radiology <u>31</u> , 481 (1938).	-H23	10¢
International recommendations for X-ray and Radium Protection, Radiology <u>30</u> , 511 (1938). Also American Journal of Roentgenology and Radium Therapy <u>40</u> , 134 (1938).		
Roentgen Therapy - Sections on X-ray Dosimetry and X-ray Protection, L. S. Taylor, Lea and Febiger, Philadelphia, Pa., (1938)		

<u>Title</u>	<u>Series</u>	<u>Price</u>
Measurement of supervoltage X-rays with the free air ionization chambers. Lauriston S. Taylor, George Singer and Arvid L. Charlton. J. Research NBS <u>21</u> , 19 (1933) - - - - - Also Am. J. of Roent. & Rad. Ther. <u>41</u> 256 (1939)	RP1111	10¢
Concrete as a protective material against high voltage X-rays. G. Singer, L. S. Taylor and A. L. Charlton. J. Res. NBS <u>21</u> 783 (1938) - - - - Also Radiology <u>33</u> 68-76 (1939)	RP1155	OP
The economic features of X-ray Protection. L. S. Taylor. Radiology <u>34</u> 425-437 (1940)		
Measurement in Roentgens of the Gamma Radiation from radium by the free-air ionization chamber. L. S. Taylor and G. Singer. J. Res. NBS <u>24</u> 247 (1940) - - - - - Also in Am. J. Roent. & Rad. Ther.	RP1283	5¢
Report of Standardization Committee of the Radiological Society of North America. Radiology <u>35</u> 105-108 (1940)		
X-ray Protection. L. S. Taylor. Journal of the American Medical Association <u>116</u> 136 (1940)		
New X-ray Laboratory of the National Bureau of Standards. L. S. Taylor. Radiology <u>37</u> 79 (1941)		
Physical Foundations of Radiology. Otto Glasser, Edith H. Quimby, L. S. Taylor and J. L. Weatherwax. (Paul B. Hoeber, Inc., New York and London) (1944)		
Roentgen Ray Protection. L. S. Taylor. Medical Physics (Yearbook Publishers Inc., Chicago, Ill.) 1382 (1944)		
Measurement of Quality by Standard Absorption Curves. G. Singer. Medical Physics (Yearbook Publishers Inc., Chicago, Ill.) 1364 (1944)		
Measurement of Quantity by Large Air Ionization Chambers. G. Singer. Medical Physics (Yearbook Publishers, Inc., Chicago, Ill.) 1366 (1944)		

<u>Title</u>	<u>Series</u>	<u>Price</u>
Safety Code for the Industrial Use of X-rays, Part I, American War Standard Z54.1, American Standards Association.		
Industrial X-ray Protection. Bulletin, Am. Soc. for Testing Materials, No. 99, p. 23, August 1939.		
First Safety Standard for Industrial X-rays. G. Singer. Industrial Standardization. (American Standards Association, New York, New York) <u>16</u> 141 (1945)		
X-ray and Gamma-ray Protection in Industry. G. Singer. National Safety News. August 1945.		
Materials and Methods of X-ray Protection. G. Singer and G. C. Laurence. Industrial Radiography (1945). Also in Radiology <u>46</u> 57 (1946).		
American War Standard for the Industrial Use of X-rays, Parts I to VI, Z54.1. G. Singer April 1945		
Absorption Measurements for Broad Beams of 1 MV and 2 MV X-rays. G. Singer, C. B. Braestrup and H. O. Wyckoff. BS J Research <u>37</u> 147 (1946)- Also in Am. J. Roent. & Rad. Ther. <u>LV</u> 711 (1946)	-RP1735	10¢
Ionization Yield of Radiations: Part II - The Fluctuations of the Number of Ions. U. Fano Phys. Rev. <u>72</u> 26 (1947).		
Electric Quadrupole Coupling of the Nuclear Spin with the Rotation of a Polar Diatomic Molecule in an External Electric Field. U. Fano. J. Res. NBS <u>40</u> 215 (1948).		
Note on the Theory of Radiation Induced Lethals in Drosophila. U. Fano. Science <u>106</u> 37 (1947).		
Relative Thicknesses of Lead, Concrete and Steel Required for Protection Against Narrow Beams of X-rays. G. Singer, H. O. Wyckoff and F. H. Day. BS J Research <u>33</u> (1947)- - - - -	- - - - - RP1306	10¢

<u>Title</u>	<u>Series</u>	<u>Price</u>
Fluctuation of Ionization Yield. U. Fano. Phys. Rev. <u>71</u> 480 (1947).		
A Possible Contributing Mechanism of Catalysis. U. Fano. J. Chem. Phys. <u>15</u> 345 (1947).		
Theory of Imperfect Diffraction Gratings. U. Fano. J Op Soc of America <u>38</u> 921 (1948).		
Roentgen-ray Calibration of Photographic Film Exposure Meter. L. J. Deal, J. H. Roberson and F. H. Day. Am. J. Roent. and Rad. Ther. <u>59</u> (1948).		
Protection Requirements of 1 mv and 2 mv Roentgen-ray Installations. C. B. Braestrup and H. O. Wyckoff. Radiology <u>51</u> 340 (1948).		
Broad and Narrow Beam Attenuation of 500 to 1400 kv X-rays in Lead and Concrete. H. O. Wyckoff, R. J. Kennedy and W. R. Bradford. Radiology <u>51</u> 841 (1948). Nucleonics <u>6</u> 62 (1948).		
Broad Beam Attenuation Study in Lead and Concrete for 500 and 1400 kv X-rays. H. O. Wyckoff. J. Research NBS <u>41</u> (1948) - - - - -	RP1920	10¢
Medical X-ray Protection up to 2 Million Volts. - - - H. O. Wyckoff and L. S. Taylor. Report of the National Committee on Radiation Protection. (Supersedes HB20). March 1949.	H41	15¢
Concrete as a Protection Barrier for Gamma Rays from Radium. H. O. Wyckoff and R. J. Kennedy. J. Research NBS <u>42</u> (1949) - - - - -	RP1983	10¢
Thimble-Chamber Calibration on Soft X-rays. F. H. Day. J. Research NBS <u>41</u> (1943) - - - - - Am. J. Roent. and Rad. Ther. <u>LXI</u> 543 (1949)	RP1926	10¢
Absorption of X-rays in Air. F. H. Day and L. S. Taylor. J. Research NBS <u>40</u> (1943) - - - - - Radiology <u>52</u> 239 (1949)	RP1883	10¢
Cathode-ray Oscilloscope Camera. D. D. Bare. Rev. Scien. Instruments <u>19</u> 471 (1948)		
Problem of Dosage Measurements for Radiations above 1 Mev. L. S. Taylor. A.R.R.S. (1948)		
Interpretation of the Poisson Brackets. U. Fano. In press.		
Meson Mass and Range of Nuclear Forces. U. Fano. Am. J. Phys. (New York, N. Y.) <u>17</u> 318 (1949)		

- Remarks on the Classical and Quantummechanical Treatment of Partial Polarization, U. Fano. J. Op. Soc. of America, (August 1949)
- Penetration and Diffusion of Hard X-rays Through Thick Barriers, I. The Approach to Spectral Equilibrium. H. A. Bethe, U. Fano and P. Karr, Phys. Rev. (American Institute of Physics, Lancaster, Pa.) 76 538 (1949)
- Penetration and Diffusion of X-rays Through Thick Barriers, II. The Asymptotic Behavior when Pair Production is Important. U. Fano, Phys Rev, (American Institute of Physics, Lancaster, Pa.) 76 739 (1949)
- Penetration and Diffusion of Hard X-rays Through Thick Barriers, III. Studies of Spectral Distribution. P. Karr and J. C. Lamkin. In press.
- Penetration and Diffusion of Hard X-rays Through Thick Barriers, IV. Multiply Scattered Gamma Rays: Angular Distribution. L. Spencer and F. Jenkins. In press.
- Penetration and Diffusion of Hard X-rays Through Thick Barriers, V. Effect of Small Deflections upon the Asymptotic Behavior. U. Fano, H. Hurwitz, and L. V. Spencer. In press.
- Theory of X-ray Diffusion in Thick Barriers. U. Fano. Nucleonics. In press
- Background Eradication of Thick-Layered Nuclear Emulsions. M. Wiener and H. Yagoda. Phys. Rev. (American Institute of Physics, Lancaster, Pa.) In press.
- Reciprocity Law for Gamma Rays, Beta Rays and Alpha Particles. H. O. Wyckoff. Atomic Weapons Handbook. In press.
- Concrete as a Protective Barrier for Gamma Rays from Co⁶⁰. R. J. Kennedy, H. O. Wyckoff, and W. A. Snyder. J. Res. NBS. In press.
- Energy Dependence of the Naphthalene Scintillation Detectors. J. Smeltzer. In press.

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Safe Handling of Radioisotopes. L. S. Taylor. Report of - - - the National Committee on Radiation Protection	H42	15¢
Shielding Design for X-ray Machines. H. O. Wyckoff. Nucleonics. In press.		
Spectral Analysis of 10 Mev Betatron Radiation by Nuclear Emulsions. P. Wang and M. Wiener. In press.		
Development of Military X-ray Equipment. Monthly News Letter (American College of Radiology) July 1948.		
Army Develops New Equipment. Monthly News Letter (American College of Radiology) May 1949.		

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