RADIO PUBLICATIONS OF THE BUREAU OF STANDARDS

The radio publications of the Bureau of Standards printed at the Government Printing Office can be secured by purchase from the Superintendent of Documents, Government Printing Office, Washington, D.C., at the prices stated in the following list. This list also includes references to articles emanating from this Bureau which have been published in outside periodicals. The Bureau can not supply copies of papers published in outside periodicals; inquiries for copies of such papers should be addressed directly to the periodical concerned. A list of Letter Circulars on radio subjects is also given herein; see section of that title below.

Persons who wish to keep in touch with the radio publications of the Bureau as they are issued should subscribe to the "Radio Service Bulletin," published monthly by the Bureau of Navigation, Department of Commerce. Besides notices regarding new Government radio publications, the "Radio Service Bulletin" contains brief news items concerning Government radio work, additions and changes to the lists of radio calls and radio regulations, and other useful information. Subscriptions should be sent to the Superintendent of Documents. The price is 25 cents per year for subscribers in the United States and its possessions, Canada, Cuba and Mexico. To other countries the subscription price is 40 cents per year. The Bureau does not send individual notices of its publications as they appear.

The publications of the Bureau of Standards printed by the Government Printing Office are divided into five series: Scientific Papers, Technologic Papers, Circulars, Miscellaneous Publications, and Handbooks.

The Scientific Papers are published separately, and also in cloth-bound volumes. Scientific Papers Nos.1 to 329 are included in volumes 1 to 14, which were called "Bulletin of the Bureau of Standards." Volumes 15, 16, and 17, and subsequent volumes are called "Scientific Papers of the Bureau of Standards." Volume 15 includes Nos.330-368, volume 16 includes Nos.369-404, and volume 17 includes Nos.405-438. The bound volumes can be procured only by purchase from the Superintendent of Documents. Volumes 1 to 14 cost $1.50 per volume, and later volumes cost $2.00 per volume. Subscriptions in advance for the separate unbound Scientific Papers constituting a volume, to be sent promptly as issued, may be placed with the Superintendent of Documents at the rate of $1.25 per volume. Advance subscriptions for unbound copies of the Technologic
Papers may also be placed at the same rate. The earlier volumes (from vol.1 to vol.14) were published in four paper-bound "Numbers" each, as well as in a complete cloth-bound volume, and "vol.10, No.4" means that the paper in question will be found in the paper-bound part of vol.10 marked "No.4." These separate paper-bound numbers can be purchased separately.

The prices stated for publications printed at the Government Printing Office, include postage in the United States and its possessions, Canada, Cuba, and Mexico. On shipments to be sent to other countries the actual cost of the postage is charged, which is at the rate of eight cents per pound. In general, an allowance should be made for foreign postage equal to about 35% of the amount of the order.

The following abbreviations are used to indicate the several classes of publications:

S = Scientific Paper  
T = Technologic Paper  
C = Circular  
M = Miscellaneous publications  
H = Handbook  
° = Not printed at the Government Printing Office  
* = Publications of the Naval Radio Research Laboratory, which is located at the Bureau of Standards.

For example, S139 means Scientific Paper No.139.

°Papers designated by the mark ° are not printed by the Government Printing Office, but are publications in an outside periodical by a member of the staff of the Bureau. They should be consulted at libraries which maintain files of the particular periodicals referred to.

General


Sources of elementary radio information. C132. June, 1922. 5¢  
(Information regarding radio publications, including those of the Government, and radio periodicals, radio laws, and call letters. Answers various questions of the beginner.)


The radio work of the Department of Commerce. J.H.Dellinger, QST, 4, pp.18-21; June, 1921.


Radio Wave Phenomena

Principles of radio transmission and reception with antenna and coil aerials. J.H.Dellinger. S354. 61 pages. 1919. 10¢ (B.S.Scientific Papers, 15, 435-495.)


*Quantitative experiments in radiotelegraphic transmission. L.W.Austin. S226. 18 pages. 1914. (B.S.Bulletin, 11, No.1, p.69.) 5¢


Antennas

*Antenna resistance. L.W.Austin. S189. 3 pages. 1912. (B.S.Bulletin 2, No.1, p.65.) 5¢


The field radiated from two horizontal coils. G.Breit. S431. 1922. 5¢ (B.S.Scientific Papers 17, 589-606.)


Applications of Radio.

The radio direction finder and its application to navigation. F.A.Kolster and F.W.Dunmore. S428. 33 pages. 1922. 15¢


Some physical problems of aircraft radio. (Brief note.) L.E. Whittemore. Physical Review, 13, p.149; August, 1931.


Electron Tubes

Dependence of the input impedance of a three-electrode vacuum tube upon the load in the plate circuit. J.M.Miller. S351. 18 pages. 1919. 5¢ (B.S.Scientific Papers 15, 337-335.)

Determination of the output characteristics of electron tube generators. L.M.Hull. S355. 20 pages. 1919. 5¢ (B.S.Scientific Papers 15, 497-517.)

Operation of the modulator tube in radio telephone sets. E.S. Purington. S423. 29 pages. 1921. (B.S.Science Papers 17, 377-406.) 10¢

Radio-frequency amplifiers. P.D.Lowell. S449. 7 pages. 1922. 5¢ (B.S.Science Papers 18, 335-343.)

An electron tube amplifier using 60-cycle alternating current to supply power for the filaments and plates. P.D.Lowell. S450. 7 pages. 1922. 5¢ (B.S.Science Papers 18, 345-353.)


Receiving Apparatus

The construction and operation of a simple homemade radio receiving outfit. Circular 130. May, 1922. 5¢

Construction and operation of a two-circuit radio receiving equipment with crystal detector. Circular 131. May, 1922. 5¢


Radio Measurements

High-frequency ammeters, J.H.Dellinger, S306, 69 pages, 1913. (B.S.Bulletin, 10, No.1, p.91.) 10¢


Electric units and standards. C60. 68 pages. Sept. 25, 1916. 15¢

International system of electric and magnetic units. J.H.Dellinger. S392. 33 pages. 1916. (B.S.Bulletin, 13, No.4, p.599.) 10¢


Radio instruments and measurements. C74. 341 pages. March 33, 1918. 60¢


The cathode-ray oscillograph and its application in radio work. L.M. Hull. Proceedings Institute Radio Engineers, 2, p.130; April, 1921.


Permanent-contact crystal detectors. (Brief note.) L.S. McDowell. Physical Review, 13, p.288; April, 1919.


Present status of the electric and magnetic units. J.H. Dellinger. Physical Review, 18, p.131; August, 1921.


Capacity, Inductance, Resistance


The testing and properties of electric condensers. C36. 26 pages. June 30, 1912. 5¢
Capacity, Inductance, Resistance (continued).

Additions to the formulas for the calculation of mutual and self inductance, (supplementing S169). F.W. Grover. S530. 34 pages. 1918. (B.S. Bulletin, 14, No.4, p.537.) 10¢


The simultaneous measurement of the capacity and power factor of condensers F.W. Grover. S64. 61 pages. 1907. (B.S. Bulletin, 3, No.3, p.371.) 15¢


The capacity and phase difference of paraffined paper condensers as functions of temperature and frequency. F.W. Grover. S166. 82 pages. 1911. (B.S. Bulletin 7, No.4, p.495.)

A variable self and mutual inductor. H.B. Brooks and F.C. Weaver. S390. 1916. 10¢

Some effects of the distributed capacity between inductance coils and the ground. G. Breit. S427. 6 pages. Dec. 21, 1921. 5¢

The high-frequency resistance of inductance coils. G. Breit. S430. 1923. 5¢ (B.S. Scientific Papers 17, pp.569-537.)

Tables for the calculation of the inductance of circular coils of rectangular cross section. F.W. Grover. S455. 1922. (B.S. Scientific Papers, 18, p.451.)

*The energy losses in some condensers used in high-frequency circuits. L.W. Austin. Sl90. 3 pages. Mar. 1, 1912. (B.S. Bulletin, 2, No.1, p.73.) 5¢


The effective capacity of multilayer coils with square and circular section. G. Breit. Philosophical Magazine, 43, pp. 963-992; May, 1923.

Properties of Materials.


Radio Publications of the Bureau of Standards
Now out of Print as Separate Papers
(These articles can be consulted in the copies of the Bureau's papers on file in Government depository libraries throughout the United States.)

*Detector for small alternating currents and electrical waves.

The influence of frequency upon the self-inductance of coils.

*The Production of high-frequency oscillations from the electric arc.

*Some contact rectifiers of electric currents.
L. W. Austin. S94. 15 pages. 1908. (B.S. Bulletin, 5, No. 1, p. 133.) 10¢

*A method of producing feebly damped high-frequency electrical oscillations for laboratory measurements.
L. W. Austin. S95. 4 pages. 1908. (B.S. Bulletin, 5, No. 1, p. 149.) 5¢

*On the advantages of a high spark frequency in radio telegraphy.

The theory of coupled circuits.

*The comparative sensitiveness of some common detectors of electrical oscillations. L. W. Austin. Sl40. 16 pages. 1910. (B.S.Bulletin 6, No. 4, p. 527.) 5¢

Letter Circulars

The following documents are not available in printed form. They have been prepared in mimeographed form only, like this pamphlet, and can be consulted at the Bureau of Standards. The Bureau has only a small number of copies of these, but where a person can show special need for the information, a copy may be furnished without charge.

Letter Circular No. 41, Extension of the Dewey decimal classification applied to radio.
Letter Circular No. 46, Description of fixed condensers used with simple radio receiving sets.
Letter Circular No. 47, Description of a loading coil used with simple radio receiving sets.
Letter Circular No. 48, Description and operation of an electron tube detector unit.
Letter Circular No. 49, Description and operation of an audio-frequency amplifier unit for simple radio receiving outfits.
Letter Circular No. 56, Methods of radio direction finding as an aid to navigation: The relative advantages of locating the direction finder on shore and on shipboard.
Letter Circular No. 73, Fees for testing radio apparatus.
Letter Circular No. 76, The standardization of inductors at radio frequencies.
Letter Circular No. 77, The comparison of condensers at radio frequencies.
Letter Circular No. 78, Design of a portable short-wave radio wave-meter.