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NATIONAL BUREAU OF STANDARDS
WASHINGTON

Letter
Circular
LC 767
Supersedes LC 675

September 26, 1944

INORGANIC ANALYTICAL CHEMISTRY

Publications by members of the staff of the National Bureau of Standards

This letter circular lists publications by members of the staff of the National Bureau of Standards which deal directly, or incidentally, with inorganic chemical analysis. Publications on the platinum metals are not included in this list because a complete tabulation of these is given in Letter Circular LC 426. Publications relating to gas chemistry are covered in Letter Circular LC 546.

The arrangement is in the order of date of publication, except for the small number of general publications known as "Circulars" relating to analysis, which are grouped at the beginning of the list.

For ready reference and convenience in ordering the separate papers, they have been listed with consecutive numbers in the first column, the title in the second column, the serial letter and number in the third column, and the price in the last column. "OP" indicates that the paper is out of print, but may be consulted in libraries. See also paragraph on "Scientific Papers" below. A complete list of the Bureau's publications (Circular No. C24 and Supplements) is also generally available at such libraries.

When the price is stated, the publication may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C. The prices quoted are for delivery to addresses in the United States and its possessions, and to certain countries that extend the franking privilege. In the case of all other countries, one-third the cost of the publications should be added to cover postage. Remittances should be made either by coupons (obtainable from the Superintendent of Documents in sets of 20 for $1.00 and good until used), or by check or money order payable to the "Superintendent of Documents, Government Printing Office," and sent to him with order.

Serial letters are used to designate Bureau publications:

S = "Scientific Papers" of the National Bureau of Standards. S1 to S329, are "Reprints from the Bulletin of the Bureau of Standards." S330 to S572, were published as "Scientific Papers of the Bureau of Standards." This series was superseded by the "Bureau of Standards Journal of Research" in 1928. Each volume of the Bulletin was published in four parts called the Quarterly of the Bulletin of the Bureau of Standards. Most of the Scientific Papers, S1 to S329, which are no longer obtainable as separates, may still be secured by purchasing the Quarterly of the Bulletin which contains the paper or papers desired. The Quarterly of the Bulletin sells at 25 cents each.

T = "Technologic Paper" of the National Bureau of Standards. T1 to T202 were issued, each independent of the other, with individual pagination. Later they were assembled to make the the first 15 volumes of this series, and subsequent separates were given volume pagination (Tech. Pap. BS). This series was superseded by the "Bureau of Standards Journal of Research" in 1928.

RP = "Research Paper." These are reprints of articles appearing in the "Bureau of Standards Journal of Research" and the "Journal of Research of the National Bureau of Standards", the latter being the title of this periodical since July 1934 (volume 13, number 1).

C = "Circular" of the National Bureau of Standards.

For papers in other scientific or technical journals, the name of the journal or of the organization publishing the article is given, together with the volume number (underscored), page, and year of publication. The number of pages is given last. The Bureau can not supply copies of these journals, or reprints from them.

Ref. No.	Title	Series	Price
1.	Analyzed irons and steels - methods of analysis. Cir. BS, C14 (Last revision 1912).	C14	OP
2.	Standard samples - general information. Cir. BS, C25 superseded by Circular C398 (1932).	C25	OP
3.	Analyzed iron and manganese ores - methods of analysis. Cir. BS, C26 (Last revision 1913).	C26	OP
4.	Sodium oxalate as a standard in volumetric analysis. Cir. BS, C40 superseded by Circular C381 (1930).	C40	OP
5.	Sodium oxalate as a standard in volumetric analysis. Cir. BS, C381 (1930). Supersedes third edition of Circular C40.	C381	5¢
6.	Standard samples - general information. Cir. Bs, C398 (1932). 12 pp. supersedes 9th edition of Circular C25.	C398	Free
7.	Supplement to C398 is a descriptive list of the standard samples issued or in preparation by the National Bureau of Standards. It is revised every 2 years and may be obtained from the National Bureau of Standards free upon request.		
8.	On the colorimetric determination of iron with special reference to chemical reagents, H. N. Stokes and J. R. Cain, Bul. BS 3, 115 (1907). 42 pp. J. Am. Chem. Soc., 29, 409 (1907).	S53	OP
9.	On sulphocyanic acid, H. N. Stokes and J. R. Cain, Bul. BS 3, 157 (1907) 5 pp. J. Am. Chem. Soc., 29, 443 (1907).	S54	OP
10.	The atomic weight of hydrogen, W. A. Noyes, Bul. BS 4, 179 (1907). 26 pp.	S77	OP
11.	The atomic weight of chlorine, W. A. Noyes, and H. C. P. Weber, Bul. BS 4, 345 (1907) 20 pp.	S81	OP

Ref.No.	Title	Series	Price
12	Bureau of Standards analyzed samples, W. F. Hillebrand, J. Ind. Eng. Chem., 1, 41 (1909). 1 p.	---	---
13.	A new occurrence of plumbojarosite, W. F. Hillebrand, and F. E. Wright, Am.J. Sci., 30, 191 (1910). 2 pp.	---	---
14.	Chemistry in the Bureau of Standards, W. F. Hillebrand, J. Ind. Eng. Chem., 2, 423 (1910). 3 pp.	---	---
15.	A convenient potash bulb, C. E. Waters, J. Am. Chem. Soc., 32, 1691 (1910). 3 pp.	---	---
16.	The analysis of silicate and carbonate rocks, W. F. Hillebrand, U. S. Geological Survey Bulletin 422 (1910). Revised 1916. Superseded by Bulletin 700 in 1919.	---	OP
17.	Mosesite, A new mercury mineral from Terlingua, Texas, F. A. Canfield, W. F. Hillebrand and W. T. Schaller, Am. J. Sci., 30, 202 (1910). 7 pp.	---	---
18.	The determination of vanadium in vanadium and chrom-vanadium steels, J. R. Cain, Bul. BS 7, 377 (1911). 16 pp. J. Ind. Eng. Chem. 3, 476 (1911). 6 pp.	S161	OP
19.	The determination of total sulphur in india rubber, C. E. Waters and J. B. Tuttle, Bul. BS 8, 445 (1911). 9 pp.	S174	OP
20.	The hydrolysis of sodium oxalate and its influence upon the test of neutrality. William Blum, Bul. BS 8, 519 (1911). 20 pp.	S178	OP
21.	The determination of chromium and and its separation from vanadium, in steels. J. R. Cain, Tech. Pap. BS, T6, (1911). 6 pp.	T6	OP

Ref.No.	Title	Series	Price
22.	A rapid method for the determination of vanadium in steels, ores, etc., based on its quantitative inclusion by the phosphomolybdate precipitate, J. R. Cain and J. C. Hostetter, Tech. Pap. BS T8, (1911). 20 pp.	T8	OP
23.	The determination of manganese in vanadium and chrome-vanadium steels. J. R. Cain, J. Ind. Eng. Chem., 3, 630 (1911). 1 p.	---	---
24.	The determination of manganese by the sodium bismuthate method. W. F. Hillebrand and William Blum. J. Ind. Eng. Chem., 3, 374 (1911). 4 pp.	---	---
25.	Preliminary report of the committee on quality of platinum laboratory utensils, W. F. Hillebrand, P. H. Walker and E. T. Allen, J. Ind. Eng. Chem., 3, 686 (1911). 5 pp.	---	---
26.	Standardization of potassium permanganate solution by sodium oxalate, R. S. McBride, Bul. BS 8, 611 (1912). 32 pp.	S182	OP
27.	Benzoic Acid as an acidimetric standard. George W. Morey, Bul. BS 8, 643 (1912). 8 pp. J. Am. Chem. Soc., 34, 1027 (1912). 7 pp.	S183	OP
28.	Determination of manganese as sulphate and by the sodium bismuthate method. William Blum, Bul. BS 8, 715 (1912). 26 pp.	S186	OP
29.	Atomic weight of bromine, H. C. P. Weber, Bul. BS 9, 191 (1912). 20 pp.	S193	OP
30.	The determination of chromium and its separation from vanadium in steels J. R. Cain, J. Ind. Eng. Chem., 4, 17 (1912). 2 pp.	---	---

Ref.No.	Title	Series	Price
31.	A rapid method for the determination of vanadium in steels, ores, etc., based on its quantitative inclusion by the phosphomolybdate precipitate. J. R. Cain and J. C. Hostetter, J. Ind. Eng. Chem., 4, 250 (1912). 6 pp.	---	---
32.	A new method for the determination of vanadium: an explanation. J. R. Cain and D. J. Demorest. J. Ind. Eng. Chem. 4, 256 (1912). 1 p.	---	---
33.	The determination of sulfate in ammonium sulfate solution with special reference to the testing of illuminating gas, R. S. McBride and E. R. Weaver, J. Ind. Eng. Chem., 5, 469 (1913). 6 pp.	---	---
34.	The reduction of vanadic acid in concentrated sulfuric acid solution by hydrogen peroxide and by persulfates. J. R. Cain and J. C. Hostetter. J. Am. Chem. Soc., 34, 274 (1912). 3 pp.	---	---
35.	Determination of sulphur in illuminating gas, R. S. McBride and E. R. Weaver, Tech. Pap. BS T20 (1913), 46 pp. J. Ind. Eng. Chem. 5, 474 (1913). 2 pp.	T20	OP
36.	The determination of phosphorus in steels containing vanadium, J. R. Cain and F. H. Tucker, Tech. Pap. BS T24 (1913). 11 pp. J. Ind. Eng. Chem., 5, 647 (1913). 4 pp.	T24	OP
37.	A danger to be guarded against in making mineral separations by means of heavy solutions, W. F. Hillebrand, J. Wash. Acad. Sci., 3, 137 (1913); Am. J. Sci., 35, 439 (1913). 2 pp.	---	---

Ref. No.	Title	Series	Price
38.	Two varieties of calciovolborthite from eastern Utah, W. F. Hillebrand and H. E. Merwin, J. Wash. Acad. Sci., 3, 138 (1913); Am. J. Sci., 35, 441 (1913). 5 pp, Z. Kryst. Mineral., 53, 4 (1914)	---	---
39.	Determination of carbon in steel and iron by the barium carbonate titration method. J. R. Cain, Tech. Pap. BS T33, (1913). 12 pp. J. Ind. Eng. Chem., 6, 465 (1914). 3 pp.	T33	OP
40.	Calcium vanadates from Peru, Colorado, and Utah, W. F. Hillebrand, F. E. Wright and N. E. Merwin, J. Wash. Acad. Sci., 3, 157 (1913). 2 pp.	---	---
41.	The constitution of aluminates. William Blum, J. Am. Chem. Soc., 35, 1499 (1913). 6 pp.	---	---
42.	The use of benzoic acid as a standard material, E. R. Weaver, J. Am. Chem. Soc., 35, 1309 (1913). 3 pp.	---	---
43.	A qualitative test for water by the use of the acetylene-cuprous chloride reaction. E. R. Weaver, J. Am. Chem. Soc., 36, 2462 (1914). 7 pp.	---	---
44.	Hewettite, metahewettite and pascoite, hydrous calcium vanadates, W. F. Hillebrand, H. E. Merwin, and F. E. Wright, Proc. Am. Phil. Soc., 53, 31 (1914). 24 pp. Z. Kryst. Mineral., 54, 209 (1914).	---	---
45.	Preparation of pure iron and iron-carbon alloys. J. R. Cain, E. Schramm, and H. E. Cleaves, J. Ind. Eng. Chem., 8, 217 (1916). 8 pp.	---	---
46.	Recovery of gallium from spelter in the United States. W. F. Hillebrand and J. A. Scherrer, J. Ind. Eng. Chem., 8, 223 (1916). 3 pp.	---	---

Ref.No.	Title	Series	Price
47.	Relation between composition and density of aqueous solutions of copper sulphates and sulphuric acid. H. D. Holler and E. L. Peffer. Bul. BS 13, 273 (1916). 9 pp.	S275	OP
48.	Determination of barium carbonate and barium sulphate in vulcanized rubber goods. John B. Tuttle, Tech. Pap. BS T64, (1916). 5 pp.	T64	OP
49.	Determination of carbon in steels and irons by direct combustion in oxygen at high temperatures. J. R. Cain and H. E. Cleaves, Tech. Pap. BS T69 (1916). 10 pp. J. Ind. Eng. Chem., 8, 321 (1916). 4 pp.	T69	OP
50.	Standard methods of sampling and analysis of standard samples. W. F. Hillebrand, J. Ind. Eng. Chem., 8, 466 (1916). 4 pp.	---	---
51.	Determination of aluminum as oxide. William Blum, Bul. BS 13, 515 (1916). 20 pp. Methyl red and rosolic acid were found to be satisfactory indicators to use in adjusting the pH for complete precipitation of aluminum hydroxide by means of ammonium hydroxide.	S286	OP
52.	Reducing matter extractible from filter paper. R. S. McBride and J. A. Scherrer. J. Am. Chem. Soc., 39, 928 (1917). 5 pp.	---	---
53.	Our analytical chemistry and its future. W. F. Hillebrand, J. Ind. Eng. Chem., 9, 170 (1917); Chandler Medal Address, Columbia University Press. 8 pp.	---	---
54.	Rapid determination of carbon in steel by the barium carbonate titration method. J. R. Cain and L. C. Maxwell. J. Ind. Eng. Chem., 10, 520 (1918). 3 pp.	---	---

Ref.No.	Title	Series	Price
55.	Comparative tests of porcelain laboratory ware, C. E. Waters, Tech. Pap. BS, T105 (1917). 8 pp.	T105	OP
56.	Comparative tests of chemical glassware. Percy H. Walker and F. W. Smither. Tech. Pap. BS, T107 (1918) 23 pp.	T107	OP
57.	A critical study of the Ledebur method for determining oxygen in iron and steel. J. R. Cain and E. Pettijohn. Tech. Pap. BS T118, (1919). 33 pp.	T118	OP
58.	A study of the Goutal method for determining carbon monoxide and carbon dioxide in steels. J. R. Cain and Earl Pettijohn. Tech. Pap. BS, T126, (1919). 8 pp.	T126	OP
59.	Lead plating from fluoborate solutions. W. Blum, F. J. Liscomb, Z. Jencks and W. E. Bailey. Trans. Am. Electrochem. Soc., 36, 243 (1919). 25 pp.	---	---
60.	An electrolytic resistance method for determining carbon. J. R. Cain, Tech. Pap. BS T141 (1919). 21 pp.	T141	OP
61.	Analysis of silicate and carbonate rocks. W. F. Hillebrand, U.S. Geological Survey Bulletin 700 (1919). 285 pp.	---	25¢
62.	Determining gases in steel and the deoxidation of steel. J. R. Cain, Bul. Am. Inst. Mining Met. Engr., 1309-22 3027-32, 3119-21 (1919).	---	---
63.	The determining of zirconium by the phosphate method. G. E. F. Lundell and H. B. Knowles. J. Am. Chem. Soc., 41, 1801 (1919). 8 pp.	---	---

Ref. No.	Title	Series	Price
64.	Oxygen content by the Ledebur method of acid Bessemer steels deoxidized in various ways. J. R. Cain and Earl Pettijohn. Sci. Pap. BS 15, 259 (1919). 12 pp.	S346	OP
65.	Equilibrium conditions in the system carbon, iron oxide, and hydrogen in relation to the Ledebur method for determining oxygen in steel. J. R. Cain and Leon Adler. Sci. Pap. BS15, 353 (1919). 14 pp.	S350	OP
66.	The turbidity standard of water analysis. P. V. Wells. Sci. Pap. BS 15, 693 (1920).	S367	OP
67.	Estimation of nitrates and nitrites in battery acid. L. B. Sefton. Tech. Pap. BS, T149 (1920). 10 pp.	T149	OP
68.	Sulphur in petroleum oils. C. E. Waters. Tech. Pap. BS, T177 (1920). 26 pp.	T177	OP
69.	Determination of antimony in rubber goods. S. Collier, M. Levin and J. A. Scherrer. India Rubber J. 60, 1297 (1920). 2 pp.	---	---
70.	The determination of zirconium in steel. G. E. F. Lundell and H. B. Knowles. J. Ind. Eng. Chem. 12, 562 (1920). 7 pp.	---	---
71.	The use of cupferron in quantitative analysis. G. E. F. Lundell and H. B. Knowles. J. Ind. Eng. Chem., 12, 344 (1920). 8 pp.	---	---
72.	The determination of zirconium and titanium in zirconium ores. G.E.F. Lundell and H. B. Knowles. J. Am. Chem. Soc., 42, 1439 (1920). 10 pp.	---	---

Ref.No.	Title	Series	Price
73.	Volatilization losses of phosphorus during evaporations of phosphates with sulfuric acid or fusions with pyrosulfate. W. F. Hillebrand and G. E. F. Lundell. J. Am. Chem. Soc., 42, 2609 (1920). 7 pp.	---	---
74.	The determination of iron by the cupferron method. G. E. F. Lundell J. Am. Chem. Soc., 43, 847 (1921) 5 pp.	---	---
75.	The determination of cobalt and nickel in cobalt steels. G. E. F. Lundell and J. I. Hoffman. J. Ind. Eng. Chem., 13, 540 (1921) 5 pp.	---	---
76.	Zinc cyanide plating solutions. William Blum, F. J. Liscomb and C. M. Carson. Tech. Pap. BS 15, (1921). 19 pp.	T195	OP
77.	Determination of available lime and quicklime in hydrated lime. Alice I. Whitson, Chem. Met. Eng. 25, 740 (1920). 1 p.	---	---
78.	A modified method for the determination of iron and vanadium after reduction by hydrogen sulfide. G. E. F. Lundell and H. B. Knowles. J. Am. Chem. Soc., 43, 1560 (1921). 9 pp.	---	---
79.	The co-precipitation of vanadic acid with ammonium phosphomolybdate. J. R. Cain and J. C. Hostetter. J. Am. Chem. Soc., 43, 2552 (1921). 11 pp.	---	---
80.	Notes on the analysis of cast bronze. G. E. F. Lundell and J. A. Scherrer. J. Ind. Eng. Chem. 14, 426 (1922). 4 pp.	---	---
81.	The determination of aluminum as phosphate. G. E. F. Lundell and H. B. Knowles. J. Ind. Eng. Chem., 14, 1136 (1922). 3 pp.	---	----

Ref.No.	Title	Series	Price
82.	Gases in metals: I. The determination of combined nitrogen in iron and steel and the change in form of nitrogen by heat treatment. Louis Jordan and F. E. Swindells Sci. Pap. BS 18, 499 (1922). 13 pp.	S457	OP
83.	The acidity of nickel depositing solutions. M. R. Thompson. Trans. Am. Electrochem. Soc., 41, 333 (1922). 29 pp. Discusses methods of measuring pH	---	---
84.	Notes on the determination of phosphorus. G. E. F. Lundell and J. I. Hoffman. Ind. Eng. Chem. 15, pages 44 and 171. (1923). 9 pp.	---	---
85.	The separation of iron and aluminum from manganese and certain other elements. G. E. F. Lundell and H. B. Knowles. J. Am. Chem. Soc., 45, 676 (1923). 6 pp..	---	---
86.	The analysis of chrome-vanadium steel. G. E. F. Lundell, J. I. Hoffman and H. A. Bright, Ind. Eng. Chem., 15, 1064 (1923). 7 pp.	---	---
87.	Chemistry work of the Bureau of Standards, W. F. Hillebrand, Chem. Age. (N.Y.) 31, 533 (1923). 3 pp.	---	---
87a.	The interference of cobalt in the bismuthate method for manganese; G. E. F. Lundell, J. Am. Chem. Soc., 45, 2600 (1923). 4 pp.	---	---
88.	The determination of titanium by reduction with zinc and titration with permanganate. G. E. F. Lundell and H. B. Knowles. J. Am. Chem. Soc., 45, 2620 (1923). 4 pp.	---	---
89.	Report on ladle test ingot investigation. J. R. Cain, H. A. Bright and G.E.F.Lundell, Proc. A.S.T.M. 23, Part 1, 92 (1923). 13 pp.	---	---

Ref.No.	Title	Series	Price
90.	Fluorine determination in nickel depositing solutions. L. D. Hammond. Ind. Eng. Chem. 16, 938 (1924). 2 pp. The Fluorine was precipitated and weighed as lead chlorofluoride.	---	---
91.	The use of cool solutions in the Jones reductor. G. E. F. Lundell and H. B. Knowles. Ind. Eng. Chem. 16, 723 (1924). 2 pp.	---	---
92.	A laboratory stirrer. C. E. Waters. Ind. Eng. Chem., 16, 493 (1924). 1 p.	---	---
93.	Carnotite and Tyuyamunite and their ores in Colorado and Utah. W. F. Hillebrand, Am. J. Sci. 8, 201 (1924). 16 pp.	---	---
94.	The analysis of phosphate rock, G. E. F. Lundell and J. I. Hoffman. J. Assn. Official Agr. Chem. 8, 184 (1924). 22 pp.	---	---
95.	Use of iron and nickel crucibles for alkali determinations. A.W. Epperson and R. B. Rudy, Ind. Eng. Chem., 17, 35 (1925). 1 p.	---	---
96.	Determination of aluminum in non-ferrous alloys. G. E. F. Lundell and H. B. Knowles, Ind. Eng. Chem., 17, 78 (1925). 3 pp.	---	---
97.	William Francis Hillebrand (1853-1925), C. E. Waters. J. Am. Chem. Soc., (Proceedings) 47, 53 (1925). 8 pp. Photograph and biographical sketch. See also Science 61, 251 (1925).	---	---
98.	The determination of uranium, G.E.F. Lundell and H. B. Knowles, J. Am. Chem. Soc., 47, 2637 (1925). 8 pp.	---	---
99.	Separation of manganese in the analysis of limestone and similar materials. A. W. Epperson, Ind. Eng. Chem. 17, 744 (1925). 1 p.	---	---

Ref.No.	Title	Series	Price
100	Gases in Metals: II. The determination of oxygen and hydrogen in metals by fusion in vacuum, Louis Jordan and James R. Eckman, Sci. Pap. BS 20, 445 (1925). 38 pp.	S514	OP
101	Determination of oxygen and hydrogen in metals by fusion in vacuum, L. Jordan and J. R. Eckman, Ind. Eng. Chem., 18, 279 (1926). Met. Ind. (London). 28, 387 (1926).	---	---
102	Analysis of dental gold alloys, William H. Swanger, Sci. Pap. BS 21, 209 (1926). 31 pp. See also a later paper, "New procedure for the analysis of dental gold alloys."	S532	10¢
103.	Rapid detection of small amounts of aluminum in certain nonferrous materials. G. E. F. Lundell and H. B. Knowles, Ind. Eng. Chem., 18, 60 (1926). 2 pp.	---	---
104.	Separation of minute quantities of gold from ferric oxide, Edward Wichers, Ind. Eng. Chem., 19, 96 (1927). 1 p.	---	---
105.	The analysis of soda-lime glass, G. E. F. Lundell and H. B. Knowles, J. Am. Ceram. Soc., 10, 829 (1927). 21 pp.	---	---
106.	Determination of sulphur trioxide in the presence of sulphur dioxide together with some analysis of commercial liquid sulphur dioxide, J. R. Eckman, Sci. Pap. BS 22, 277 (1927). 9 pp.	S554	OP
107.	Data on the assay of rolled gold plate, Raleigh Gilchrist, Ind. Eng. Chem., 19, 827 (1927). 4 pp.	---	---
108.	A weight burette for the micromeasurement of liquid volumes, Martin Shepherd, Sci. Pap. BS, 22, 287 (1927); 5 pp.	S555	OP

Ref.No.	Title	Series	Price
109.	Gases in Metals: III. The determination of nitrogen in metals by fusion in vacuum, Louis Jordan and James R. Eckman. Sci. Pap. BS 22, 467 (1927). 19 pp.	S563	OP
110.	The determination of iron in glass sand, G. E. F. Lundell and H. B. Knowles, J. Am. Ceram. Soc., 11, 119 (1928). 7 pp.	---	---
111.	The analysis of bauxite and of refractories of high alumina content, G. E. F. Lundell and J. I. Hoffman, BS J. Research 1, 91 (1928). 14 pp.	RP 5	OP
112.	The pyrophosphate method for the determination of magnesium and phosphoric anhydride, Alice Whitson Epperson, J. Am. Chem. Soc., 50, 321 (1928). 12 pp.	---	---
113.	A study of the hydrogen-antimony-tin method for the determination of oxygen in cast irons, Bengt Kjerrman and Louis Jordan, BS J. Research 1, 701 (1928). 20 pp.	RP 25	OP
114.	Reaction of water on calcium aluminutes, L. S. Wells, BS J. Research 1, 951 (1928). 59 pp.	RP 34	OP
115.	The analysis of fluorspar, G.E.F. Lundell and J. I. Hoffman, BS J. Research 2, 671 (1929). 13 pp.	RP 51	OP
116.	Determination of molecular weights in the vapor state from vapor pressure and evaporation data. E. W. Washburn, BS J. Research 2, 703 (1929). 11 pp.	RP 53	5¢
117.	Use of 8-hydroxyquinoline in separations of aluminum. G.E.F.Lundell and H. B. Knowles, BS J. Research 3, 91 (1929). 6 pp.	RP 86	OP

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118.	Determination of manganese in steel and iron by the persulphate-arsenite method. H. A. Bright and C. P. Larrabee, BS J. Research 3, 573 (1929). 7 pp.	RP 109	5¢
119.	Determination of fluorine and of silica in glasses and enamels containing fluorine, J. I. Hoffman and G.E.F.Lundell, BS J. Research 3, 581 (1929). 15 pp.	RP 110	5¢
120.	The measurement of pH in nickel plating solutions, W. Blum and N. Bekkedahl, Trans. Am. Electrochem. Soc., 56, 291 (1929). 33 pp.	---	---
121.	Reliability of fusible tin boiler plugs in service, J. R. Freeman,Jr., J. A. Scherrer, and S. J. Rosenberg, BS J. Research 4, 1 (1930). 22 pp.	RP 129	10¢
122.	The effect of light on silver chloride in chemical analyses. G. E. F. Lundell and J. I. Hoffman, BS J. Research 4, 109 (1930). 6 pp.	RP 134	OP
123.	On a modified method for decomposing aluminous silicates for chemical analysis, A. N. Finn and J. F. Klekotka, BS J. Research 4, 809 (1930). 5 pp.	RP 180	OP
124.	Conductivity and density of chromic acid solutions, H. R. Moore and W. Blum, BS J. Research 5, 255 (1930). 10 pp.	RP 198	OP
125.	The precipitation and ignition of magnesium ammonium phosphate, J. I. Hoffman and G.E.F.Lundell, BS J. Research 5, 279 (1930). 15 pp.	RP 200	5¢
126.	An improved Victor Meyer molecular weight apparatus, Mildred M. Hicks-Bruun, BS J. Research 5, 575 (1930). 7 pp.	RP 215	OP

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127.	Apparatus for the determination aboard ship of the salinity of sea water by the electrical conductivity method, Frank Wenner, Edward H. Smith, and Floyd M. Soule, BS J. Research 5, 711 (1930). 22 pp.	RP 223 10¢
128.	The importance of particle size in samples of certain metallurgical materials, J. A. Scherrer and G.E.F.Lundell, BS J. Research 5, 891 (1930). 5 pp.	RP 237 OP
129.	Determination of carbon in high sulphur steels by direct combustion. H. A. Bright and G.E.F. Lundell, BS J. Research 5, 943 (1930). 7 pp.	RP 240 OP
130.	Determination of magnesium in portland cement and similar materials by the use of 8-hydroxyquinoline, J. C. Redmond and H. A. Bright BS J. Research 6, 113 (1931). 8 pp.	RP 265 OP
131.	Determination of small quantities of volatile organic acids, in sulphuric acid solutions, D. N. Craig, BS J. Research 6, 169 (1931). 14 pp.	RP 267 5¢
132.	Stabilization of boric acid buffers by aeration, Edna H. Faucett and S. F. Acree, BS J. Research 6, 757 (1931). 7 pp.	RP 302 5¢
133.	Purification and analysis of alkali cyanides, M. R. Thompson BS J. Research 6, 1051 (1931). 9 pp.	RP 323 OP
134.	Two hundred reagent chemicals - good and bad. Edward Wichers, Aaron Isaacs and Irl C. Schoonover, Ind. Eng. Chem. Anal. Ed. 3, 227 (1931). 5 pp.	--- ---

Ref.No.	Title	Series	Price
135.	The determination of oxygen and nitrogen in irons and steels by the vacuum fusion method, H. C. Vacher and Louis Jordan, BS J. Research 7, 375 (1931). 27 pp.	RP 346	10¢
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