

Publications for the Years 1920 - 1929

1920

1. Haworth, W.N., **The constitution of the disaccharides, Part IV. The structure of the fructose residue in sucrose**, *J. Chem. Soc.*, **1920**, 117, 199.
2. Irvine, J.C.; Steele, E.S., **The constitution of polysaccharides, Part I. The relationship of inulin to fructose**, *J. Chem. Soc.*, **1920**, 117, 1474.
3. Irvine, J.C.; Soutar, C.W., **The constitution of polysaccharides, Part II. The conversion of cellulose into glucose**, *J. Chem. Soc.*, **1920**, 117, 1489.

1921

4. Haworth, W.N.; Hirst, E.L., **The constitution of the disaccharides, Part V. Cellobiose**, *J. Chem. Soc.*, **1921**, 119, 193.
5. Irvine, J.C.; Oldham, J.W.H., **The constitution of polysaccharides, Part III. The relationship of *l*-glucosan to *d*-glucose and to cellulose**, *J. Chem. Soc.*, **1921**, 119, 1744.
6. Macbeth, A.K., **Gasometric estimation of hypochlorites**, *Chem. News*, **1921**, 122, 268.
7. Macbeth, A.K.; Pratt, D.D., **The halogen derivatives of nitroform**, *J. Chem. Soc.*, **1921**, 119, 354.
8. Macbeth, A.K.; Gibson, D.T., **The action of dialkyl nitrates on piperidine**, *J. Chem. Soc.*, **1921**, 119, 438.
9. Macbeth, A.K.; Pratt, D.D., **The labile nature of the halogen atom in substituted nitromethanes**, *J. Chem. Soc.*, **1921**, 119, 1356.
10. Graham, H.; Macbeth, A.K., **Colourations produced by substituted nitroforms**, *J. Chem. Soc.*, **1921**, 119, 1744.

1922

11. Irvine, J.C., **The organisation of research and some research problems in the carbohydrate series**, *Report Brit. Assoc.*, **1922**, Presidential Address, Section B.
12. Irvine, J.C.; Steele, E.S.; Shannon, M.I., **The constitution of polysaccharides, Part IV. Inulin**, *J. Chem. Soc.*, **1922**, 121, 1060.
13. Irvine, J.C.; Hirst, E.L., **2,3,6-Trimethylglucose**, *J. Chem. Soc.*, **1922**, 121, 1213.
14. Irvine, J.C.; Hirst, E.L., **The constitution of polysaccharides, Part V. The yield of glucose from cotton cellulose**, *J. Chem. Soc.*, **1922**, 121, 1585.

15. Irvine, J.C.; Patterson, J., **The constitution of acetone derivatives of glucose and fructose**, *J. Chem. Soc.*, **1922**, *121*, 2146.
16. Irvine, J.C.; Earl, J.C., **Mutarotation and pseudomutarotation of glucosamine and its derivatives**, *J. Chem. Soc.*, **1922**, *121*, 2370.
17. Irvine, J.C.; Earl, J.C., **Salicylidene derivatives of *d*-glucosamine**, *J. Chem. Soc.*, **1922**, *121*, 2376.
18. Irvine, J.C.; Patterson, J., **1,3,4,6-Tetramethylfructose**, *J. Chem. Soc.*, **1922**, *121*, 2696.
19. Irvine, J.C., **Scotland's contribution to chemistry**, *Pharm. J*, **1922**.
20. Henderson, T.; Macbeth, A.K., **The labile nature of the halogen atom in organic compounds, Part I. Titanium reductions of substituted nitroparaffins**, *J. Chem. Soc.*, **1922**, *121*, 892.
21. Hirst, E.L.; Macbeth, A.K., **The labile nature of the halogen atom in organic compounds, Part II. Action of hydrazine on nitro-halogen compounds and on bromomalonic esters**, *J. Chem. Soc.*, **1922**, *121*, 904.
22. Graham, H.; Macbeth, A.K., **The labile nature of the halogen atom in organic compounds, Part III. Absorption spectra of bromomalonic derivatives and nitroparaffins and their bearing on the question of oxygen-halogen linking**, *J. Chem. Soc.*, **1922**, *121*, 1109.
23. Macbeth, A.K., **The labile nature of the halogen atom in organic compounds, Part IV. The tautomeric hydrogen hypothesis and the removal of halogen from aromatic nitro-compounds**, *J. Chem. Soc.*, **1922**, *121*, 1116.
24. Macbeth, A.K.; Pryde, J., **Studies of the glucosides, Part I. The constitution of indican**, *J. Chem. Soc.*, **1922**, *121*, 1660.
25. Hirst, E.L.; Macbeth, A.K., **The labile nature of the halogen atom in organic compounds, Part V. The action of hydrazine on the halogen derivatives of some esters and substituted cyclohexanes**, *J. Chem. Soc.*, **1922**, *121*, 2169.
26. Carruthers, A.; Hirst, E.L.; Macbeth, A.K., **Methylation of xylose**, *J. Chem. Soc.*, **1922**, *121*, 2299.
27. Black, I.A.; Hirst, E.L.; Macbeth, A.K., **The labile nature of the halogen atom in organic compounds, Part VI. Action of titanous chloride and of ammonia on representative halogen compounds**, *J. Chem. Soc.*, **1922**, *121*, 2527.
28. Graham, H.; Macbeth, A.K., **The labile nature of the halogen atom in organic compounds, Part VII. Absorption spectra of halogen derivatives of cyclic compounds and their bearing on the question of oxygen-halogen linking**, *J. Chem. Soc.*, **1922**, *121*, 2601.

29. Menzies, R.C., **γ -Methylfructoside**, *J. Chem. Soc.*, **1922**, *121*, 2238.
30. Menzies, R.C., **Purification of methyl alcohol by sodium hypochlorite**, *J. Chem. Soc.*, **1922**, *121*, 2787.
31. Robinson, R., **Atomic vibrations in molecules of benzenoid substances**, *Nature*, **1922**, *109*, 476.
32. Kermack, W.O.; Robinson, R., **An explanation of the property of induced polarity of atoms and an interpretation of the theory of partial valencies on an electronic basis**, *J. Chem. Soc.*, **1922**, *121*, 427.
33. Armit, J.W.; Robinson, R., **Polynuclear heterocyclic aromatic types, Part I. Some indoquinoline derivatives**, *J. Chem. Soc.*, **1922**, *121*, 827.
34. Nishikawa, H.; Robinson, R., **Hydroxybenzoylphloroglucinols**, *J. Chem. Soc.*, **1922**, *121*, 839.
35. Nishikawa, H.; Robinson, R., **A note on 2,3- and 2,5-dinitro-*p*-toluidine**, *J. Chem. Soc.*, **1922**, *121*, 844.
36. Crabtree, H.G.; Robinson, R., **A synthesis of isobrazilein and certain related anhydropyranol salts, Part II. Synthesis of isohaematin**, *J. Chem. Soc.*, **1922**, *121*, 1033.
37. Macbeth, A.K.; Robinson, R., **Cevadine, Part I**, *J. Chem. Soc.*, **1922**, *121*, 1571.
38. Pratt, D.D.; Robinson, R., **A synthesis of pyrylium salts of the anthocyanidin type**, *J. Chem. Soc.*, **1922**, *121*, 1577.
39. Kermack, W.O.; Perkin jnr, W.H.; Robinson, R., **Harmine and harmaline, Part VI. Synthesis of *N*-methyltetrahydronorharmine and the constitution of harmaline and of the alkylated harmines**, *J. Chem. Soc.*, **1922**, *121*, 1872.
40. Greene, H.; Robinson, R., **Mechanism of the formation of benzoylbenzoin by the treatment of benzoylmandelonitrile with an alcoholic solution of sodium ethoxide**, *J. Chem. Soc.*, **1922**, *121*, 2182.

1923

41. Haworth, W.N.; Mitchell, J.G., **The constitution of the disaccharides, Part VIII. Sucrose**, *J. Chem. Soc.*, **1923**, *123*, 301.
42. Haworth, W.N.; Hirst, E.L.; Ruell, D.A., **The constitution of raffinose**, *J. Chem. Soc.*, **1923**, *123*, 3125.
43. Hirst, E.L.; Purves, C.B., **The structure of normal monosaccharides. Xylose**, *J. Chem. Soc.*, **1923**, *123*, 1352.
44. Hirst, E.L.; Morrison, D.R., **The action of highly concentrated hydrochloric acid**

- on cellulose and on some derivatives of glucose and xylose, *J. Chem. Soc.*, 1923, 123, 3226.**
45. Irvine, J.C.; Hirst, E.L., **The molecular structure of cotton cellulose, *J. Chem. Soc.*, 1923, 123, 518.**
 46. Irvine, J.C., **Some constitutional problems of carbohydrate chemistry, *J. Chem. Soc.*, 1923, 123, 898.**
 47. Irvine, J.C., **Biological and chemical significance of gamma sugar, *J. Ind. Eng. Chem.*, 1923, 15, 1162.**
 48. Macbeth, A.K.; Maxwell, N.I., **Quantitative absorption of light by simple inorganic substances, Part II. Chlorides of arsenic, antimony and bismuth, *J. Chem. Soc.*, 1923, 123, 370.**
 49. Macbeth, A.K.; Mackay, J., **Studies of the glucosides, Part II. Arbutin, *J. Chem. Soc.*, 1923, 123, 717.**
 50. Macbeth, A.K., **The labile nature of the halogen atom in organic compounds, Part VIII. The action of hydrazine on halogen derivatives of acetoacetic and benzoylactic esters and of benzoylacetone, *J. Chem. Soc.*, 1923, 123, 1122.**
 51. Macbeth, A.K.; Hirst, E.L.; Henderson, T., **The labile nature of the halogen atom in organic compounds, Part IX. Electrical conductivities and reduction of derivatives of nitroform, *J. Chem. Soc.*, 1923, 123, 1130.**
 52. Macbeth, A.K., **Gasometric method of estimating halogen in organic compounds, *Chem. News*, 1923, 125, 305.**
 53. Macbeth, A.K.; Graham, H., **Action of sulphur chloride on ammonia and on organic bases, *Proc. Roy. Irish Acad.*, 1923, 36, 31.**
 54. Patterson, J., **Investigation of the mannan present in vegetable ivory, *J. Chem. Soc.*, 1923, 123, 1139.**
 55. Hughesdon, R.S.; Smith, H.G.; Read, J., **Piperitone, Part VI. The reduction of piperitone, *J. Chem. Soc.*, 1923, 123, 2916.**
 56. Robinson, R.; Robinson, G.M., **Researches on pseudobases, Part IV. A new synthesis of tertiary amines of the form $R\cdot CH_2\cdot NR^1R^2$, *J. Chem. Soc.*, 1923, 123, 532.**
 57. Pratt, D.D.; Robinson, R., **A direct synthesis of certain xanthylene derivatives, *J. Chem. Soc.*, 1923, 123, 739.**
 58. Pratt, D.D.; Robinson, R., **A synthesis of pyrylium salts of the anthocyanidin type, *J. Chem. Soc.*, 1923, 123, 745.**
 59. Gulland, J.M.; Robinson, R., **The morphine group, Part I. A discussion of the**

constitutional problem, *J. Chem. Soc.*, **1923**, 123, 980.

60. Gulland, J.M.; Robinson, R., **The morphine group, Part II. Thebainone, thebainol and dihydrothebainone**, *J. Chem. Soc.*, **1923**, 123, 998.

1924

61. Irvine, J.C.; Gilchrist, H.S., **A synthetic fat containing a methylglucoside residue**, *J. Chem. Soc.*, **1924**, 125, 1.
62. Irvine, J.C.; Gilchrist, H.S., **The condensation of mannitol with olive oil**, *J. Chem. Soc.*, **1924**, 125, 10.
63. Irvine, J.C.; Hirst, E.L., **The constitution of polysaccharides, Part VII. Esparto cellulose**, *J. Chem. Soc.*, **1924**, 125, 15.
64. Irvine, J.C.; Pringsheim, H.; Macdonald, J., **The constitution of polysaccharides, Part VIII. The molecular structure of β -hexa-amylose**, *J. Chem. Soc.*, **1924**, 125, 942.
65. Irvine, J.C.; Pryde, J., **The application of Weerman's reaction to a methylated sugar**, *J. Chem. Soc.*, **1924**, 125, 1045.
66. Irvine, J.C.; Burt, W., **Derivatives of a new form of mannose**, *J. Chem. Soc.*, **1924**, 125, 1343.
67. Irvine, J.C.; Francis, G.V., **An examination of photosynthetic sugars by the methylation method**, *J. Ind. Eng. Chem.*, **1924**, 16, 1019.
68. Herring, P.T.; Irvine, J.C.; Macleod, J.J.R., **Efficiency of various sugars and their derivatives in relieving the symptoms caused by insulin in mice**, *Biochem. J.*, **1924**, 18, 833.
69. Macbeth, A.K.; MacKay, J., **Glycogen, Part I. Partial methylation and the isolation of methylated glucoses**, *J. Chem. Soc.*, **1924**, 125, 1513.
70. Menzies, R.C.; Wilkins, E.M., **Application of thallium compounds in organic chemistry, Part I. Thallous hydroxide**, *J. Chem. Soc.*, **1924**, 125, 1148.
71. Hughesdon, R.S.; Smith, H.G.; Read, J., **Piperitone, Part VII. The constitution of piperitone**, *J. Chem. Soc.*, **1924**, 125, 129.
72. Smith, H.G.; Carter, P.G.; Read, J., **Researches in phellandrenes, Part II**, *J. Chem. Soc.*, **1924**, 125, 930.
73. Robinson, G.M., **Synthesis of the higher monoalkylmalonic acid**, *J. Chem. Soc.*, **1924**, 125, 226.
74. Pratt, D.D.; Robinson, R., **A synthesis of pyrylium salts of anthocyanidin type, Part III. A new synthesis of pelargonidin chloride**, *J. Chem. Soc.*, **1924**, 125, 188.

75. Pratt, D.D.; Williams, P.N.; Robinson, R., **A synthesis of pyrylium salts of anthocyanidin type, Part IV. Flavylium salts related to chrisin, apigenin and inteolin**, *J. Chem. Soc.*, **1924**, 125, 199.
76. Nishikawa, H.; Perkin jnr, W.H.; Robinson, R., **Harmine and harmaline, Part VIII. The constitution of certain harmaline derivatives**, *J. Chem. Soc.*, **1924**, 125, 657.
77. Robinson, G.M.; Robinson, R., **Mechanism of E. Fischer's synthesis of indoles. Application of the method to the preparation of a pyrindole derivative**, *J. Chem. Soc.*, **1924**, 125, 827.
78. Menzies, R.C.; Robinson, R., **A synthesis of ψ -pelletierine**, *J. Chem. Soc.*, **1924**, 125, 2163.

1925

79. Hirst, E.L.; Robertson, G.J., **The constitution of the normal monosaccharides, Part II. Arabinose**, *J. Chem. Soc.*, **1925**, 127, 358.
80. Irvine, J.C.; Oldham, J.W.H., **Synthesis of 2:3:5 (or 2:3:4)-trimethylglucose**, *J. Chem. Soc.*, **1925**, 127, 2729.
81. Irvine, J.C.; Oldham, J.W.H., **Polymerisation of β -glucosan. The constitution of synthetic dextrans**, *J. Chem. Soc.*, **1925**, 127, 2903.
82. Irvine, J.C., **Sugars from the standpoint of an organic chemist**, *Proc. Roy. Inst. G.B.*, **1925**, (Feb. 27), 1.
83. Read, J.; McMath, A.M., **A new method of diagnosing potential optical activity, Part I. The optical activity of chlorobromomethanesulphonic acid**, *J. Chem. Soc.*, **1925**, 127, 1572.
84. Read, J.; Cook, A.M.R., **Researches in the menthone series, Part I**, *J. Chem. Soc.*, **1925**, 127, 2782.
85. Carter, P.G.; Read, J., **An examination of some Rhodesian eucalyptus oils**, *J. Soc. Chem. Ind.*, **1925**, 44, 525T.
86. Carter, P.G.; Smith, H.G.; Read, J., **The action of phosphoric acid on certain terpenes and related compounds**, *J. Soc. Chem. Ind.*, **1925**, 44, 543T.
87. Gulland, J.M.; Robinson, R., **Synthetical experiments in the naphthyridine group**, *J. Chem. Soc.*, **1925**, 127, 1493.
88. Armit, J.W.; Robinson, R., **Polynuclear heterocyclic aromatic types, Part II. Some anhydronium bases**, *J. Chem. Soc.*, **1925**, 127, 1604.

1926

89. Hirst, E.L.; Macbeth, A.K., **The constitution of the normal monosaccharides, Part III. Rhamnose**, *J. Chem. Soc.*, **1926**, 22.
90. Hirst, E.L., **The structure of the normal monosaccharides, Part IV. Glucose**, *J. Chem. Soc.*, **1926**, 350.
91. Irvine, J.C.; Black, I.M.A., **The constitution of maltose**, *J. Chem. Soc.*, **1926**, 862.
92. Irvine, J.C.; Skinner, A.F., **The behaviour of mannose diacetone on methylation**, *J. Chem. Soc.*, **1926**, 1089.
93. Irvine, J.C.; Robertson, G.J., **The constitution of polysaccharides, Part IX. The degradation of cellulose to an anhydrotrisaccharide**, *J. Chem. Soc.*, **1926**, 1488.
94. Irvine, J.C.; Macdonald, J., **The constitution of polysaccharides, Part X. The molecular unit of starch**, *J. Chem. Soc.*, **1926**, 1502.
95. Read, J.; **A textbook of organic chemistry, historical, structural and economic**; (G. Bell, London, 1926): (Reprinted 1930, 1932; 2nd edition 1935, reprinted 1937, 1940, 1941, 1942; 3rd edition 1943, reprinted 1944, 1945, 1946, 1947, 1948).
96. Earl, J.C.; Read, J., **Piperitone, Part VIII. The condensation of piperitone with aldehydes**, *J. Chem. Soc.*, **1926**, 2072.
97. Read, J.; McMath, A.M., **A new method of diagnosing potential optical activity, Part II. The optical activity of chlorobromoacetic acid**, *J. Chem. Soc.*, **1926**, 2183.
98. Read, J.; McMath, A.M., **The optical resolution of chlorosulphoacetic acid**, *J. Chem. Soc.*, **1926**, 2192.
99. Read, J.; Robertson, G.J., **Researches in the menthone series, Part II. Optically active menthones and menthylamines**, *J. Chem. Soc.*, **1926**, 2209.
100. Read, J.; Cook, A.M.R.; Shannon, M.I., **Researches in the menthone series, Part III. Optically inactive menthylamines**, *J. Chem. Soc.*, **1926**, 2223.
101. Carter, P.G.; Read, J., **Some derivatives of 1:1'-bismenthone**, *J. Soc. Chem. Ind.*, **1926**, 45, 44T.
102. Allan, J.; Robinson, R., **The relative directive powers of groups of the forms RO and RR'N in aromatic substitution, Part I**, *J. Chem. Soc.*, **1926**, 376.
103. van Duin, C.F.; Robinson, R.; Smith, J.C., **The morphine group, Part III. The constitution of neopine**, *J. Chem. Soc.*, **1926**, 903.

1927

104. Irvine, J.C., **Progress in the structural study of carbohydrates**, *Chem. Rev.*, **1927**, 4, 203.
105. Read, J., **Menthones, menthols and menthylamines**, *Chem. Ind. (London)*, **1927**, 46, 871.
106. McMath, A.M.; Read, J., **Optical resolution of chloriodoacetic acid**, *J. Chem. Soc.*, **1927**, 537.
107. Read, J.; Steele, C.C., **Optically active diphenylhydroxyethylamines and isohydrobenzoins**, *J. Chem. Soc.*, **1927**, 910.
108. Read, J.; Robertson, G.J.; Cook, A.M.R., **Researches in the menthone series, Part IV. Isomenthols and isomenthones**, *J. Chem. Soc.*, **1927**, 1276.
109. Read, J.; Robertson, G.J., **Researches in the menthone series, Part V. *d*-Neoisomenthylamine**, *J. Chem. Soc.*, **1927**, 2168.

1928

110. Irvine, J.C.; Oldham, J.W.H.; Skinner, A.F., **Attempts to synthesize sucrose**, *Chem. Ind. (London)*, **1928**, 47, 494.
111. Irvine, J.C., **Influence of chemistry on civilization**, *Ind. Eng. Chem.*, **1928**, 20, 884.
112. Macdonald, J.Y., **The photochemical decomposition of nitrous and nitric oxides**, *J. Chem. Soc.*, **1928**, 1.
113. Macdonald, J.Y., **Homogeneous catalysis, Part II. Intermediate addition compounds and chain reactions**, *Trans. Farad. Soc.*, **1928**, 24, 720.
114. Read, J.; Reid, W.G., **The complete optical resolution of externally compensated acids and bases**, *J. Soc. Chem. Ind.*, **1928**, 47, 8T.
115. Read, J.; Reid, W.G., **Optical resolution of *dl*- α -isopropylglutaric acid**, *J. Soc. Chem. Ind.*, **1928**, 47, 11T.
116. Read, J.; Reid, W.G., **Action of bromine water on certain olefinic acids**, *J. Chem. Soc.*, **1928**, 745.
117. Read, J.; Reid, W.G., **Action of bromine water on certain olefinic hydrocarbons and ethers**, *J. Chem. Soc.*, **1928**, 1487.

1929

118. Irvine, J.C., **The chemistry of starch**, *Recl. Trav. Chim. Pays-Bas*, **1929**, 48, 813.
119. Irvine, J.C.; Oldham, J.W.H.; Skinner, A.F., **Condensation of glucose and fructose. Synthesis of an isosucrose**, *J. Am. Chem. Soc.*, **1929**, 51, 1279.

120. Irvine, J.C.; Stevenson, J.W., **Molecular structure of inulin. Isolation of a new anhydrofructose**, *J. Am. Chem. Soc.*, **1929**, *51*, 2197.
121. Irvine, J.C.; Oldham, J.W.H., **Coupling of glucose and γ -fructose**, *J. Am. Chem. Soc.*, **1929**, *51*, 3609.
122. Irvine, J.C.; Pringsheim, H.; Skinner, A.F., **Methylation of α -tetra-amylose**, *Ber.*, **1929**, *62B*, 2372.
123. Read, J.; Steele, C.C.; Carter, P.G., **Researches in the menthone series, Part VI. Crystallisation of menthylamines with optically active acids**, *J. Chem. Soc.*, **1929**, 23.
124. Read, J.; Watters, A.J.; Robertson, G.J.; Hughesdon, R.S., **Piperitone, Part IX. Some oxidation reactions of piperitone**, *J. Chem. Soc.*, **1929**, 2068.
125. Read, J.; Watters, A.J., **Piperitone, Part X. Synthesis of certain menthadienes, menthenes and menthanols**, *J. Chem. Soc.*, **1929**, 2165.
126. Read, J.; Campbell, I.G.M.; Baker, T.V., **Optically active diphenylhydroxyethylamines and isohydrobenzoin**, *J. Chem. Soc.*, **1929**, 2305.
127. Read, J., **Biogenetic relationships in the menthone series**, *Chem. Ind. (London)*, **1929**, *48*, 786.
128. Hughesdon, R.S.; Robertson, G.J.; Read, J., **Laboratory apparatus for the continuous circulation of liquids and vapours**, *J. Soc. Chem. Ind.*, **1929**, *48*, 263T.