

## Publications for the Years 1910 - 1919

### 1910

1. Irvine, J.C.; Garrett, C.S., **Acetone derivatives of *d*-fructose**, *J. Chem. Soc.*, **1910**, 97, 1277.
2. Irvine, J.C.; McNicoll, D., **Constitution and mutarotation of sugar anilides**, *J. Chem. Soc.*, **1910**, 97, 1449.
3. Purdie, T.; Neave, G.B., **Optically active methoxysuccinic acid from malic acid**, *J. Chem. Soc.*, **1910**, 97, 1517.
4. Purdie, T.; Young, C.R., **Optically active derivatives of *l*-methoxy- and *d*-methoxy-succinic acids**, *J. Chem. Soc.*, **1910**, 97, 1524.
5. Purdie, T.; Arup, P.S., **Action of Grignard reagents on methyl *l*-methoxysuccinate, methyl maleate and maleic anhydride**, *J. Chem. Soc.*, **1910**, 97, 1537.

### 1911

6. Irvine, J.C.; Hynd, A., ***O*-Carboxyanilides of the sugars**, *J. Chem. Soc.*, **1911**, 99, 161.
7. Irvine, J.C.; McNicoll, D.; Hynd, A., **New derivatives of *d*-glucosamine**, *J. Chem. Soc.*, **1911**, 99, 250.
8. Weir, J., **New derivatives of aminolauronic acid**, *J. Chem. Soc.*, **1911**, 99, 1270.
9. Irvine, J.C., **The preparation of partially methylated sugars and polyhydric alcohols**, *Memorial Volume of Scientific Papers, University of St. Andrews 500th Anniversary (University of St. Andrews, 1911)*, **1911**, 155.
10. Young, C.R., **A general review of Purdie's reaction**, *Memorial Volume of Scientific Papers, University of St. Andrews 500th Anniversary (University of St. Andrews, 1911)*, **1911**, 177.
11. Denham, W.S., **The preparation of anhydrides of organic acids**, *Memorial Volume of Scientific Papers, University of St. Andrews 500th Anniversary (University of St. Andrews, 1911)*, **1911**, 225.

### 1912

12. Haworth, W.N.; King, A.T., **Constitution of camphene, Part I. The structure of camphenic acid**, *J. Chem. Soc.*, **1912**, 101, 1975.
13. Irvine, J.C.; Hynd, A., **The conversion of *d*-glucosamine into *d*-glucose**, *Proc. Chem. Soc.*, **1912**, 28, 54.

14. Irvine, J.C.; Hynd, A., **Synthetic aminoglucosides derived from *d*-glucosamine**, *Proc. Chem. Soc.*, **1912**, 28, 319.
15. Irvine, J.C.; Hynd, A., **The conversion of *d*-glucosamine into *d*-glucose**, *J. Chem. Soc.*, **1912**, 101, 1128.
16. Irvine, J.C.; Hynd, A., **Synthetic aminoglucosides from *d*-glucosamine**, *Report Brit. Assoc.*, **1912**.
17. Irvine, J.C.; Scott, J.P., **The rotatory powers of partially methylated glucoses**, *Report Brit. Assoc.*, **1912**.
18. Irvine, J.C.; Paterson, B.M., **Constitution of mannitol triacetone**, *Report Brit. Assoc.*, **1912**.
19. Purdie, T., **Constitution of disaccharides**, *Report Brit. Assoc.*, **1912**.

### 1913

20. Denham, W.S.; Woodhouse, H., **The methylation of cellulose**, *J. Chem. Soc.*, **1913**, 103, 1735.
21. Denham, W.S.; Woodhouse, H., **The action of sulphur chloride and of thionyl chloride on metallic salts of organic acids: preparation of anhydrides**, *J. Chem. Soc.*, **1913**, 103, 1861.
22. Gilmour, R., **Synthesis of a methyl tetrose**, *Proc. Chem. Soc.*, **1913**, 29, 108.
23. Haworth, W.N.; Perkin jnr, W.H.; Wallach, O., **Über vom natürlichen Sylvestren abgeleitete Verbindungen**, *Liebigs Ann. Chem.*, **1913**, 399, 155.
24. Haworth, W.N.; Perkin jnr, W.H.; Wallach, O., **Sylvestrene. The constitution of  $\alpha$ -sylvestrene and its derivatives**, *J. Chem. Soc.*, **1913**, 103, 1228.
25. Haworth, W.N., **Cantharene and other hydrocarbons allied to the terpenes**, *J. Chem. Soc.*, **1913**, 103, 1242.
26. Haworth, W.N.; Perkin jnr, W.H., **Synthesis of *d*- and *l*-sylvestrene**, *J. Chem. Soc.*, **1913**, 103, 2225.
27. Irvine, J.C., **The nomenclature in the sugar group**, *Proc. Chem. Soc.*, **1913**, 29, 69.
28. Irvine, J.C.; Hynd, A., **Conversion of *d*-glucosamine into *d*-mannose**, *Proc. Chem. Soc.*, **1913**, 29, 306.
29. Irvine, J.C.; Hynd, A., **Synthetic aminoglucosides derived from *d*-glucosamine**, *J. Chem. Soc.*, **1913**, 103, 41.
30. Irvine, J.C.; Thomson, R.R.; Garrett, C.S., **Action of ammonia and alkylamines on reducing sugars**, *J. Chem. Soc.*, **1913**, 103, 238.

31. Irvine, J.C.; Scott, J.P., **Partially methylated glucoses, Part I. Monomethylglucose and trimethylglucose**, *J. Chem. Soc.*, **1913**, 103, 564.
32. Irvine, J.C.; Scott, J.P., **Partially methylated glucoses, Part II. Dimethyl- $\alpha$ -glucose and dimethyl- $\beta$ -glucose**, *J. Chem. Soc.*, **1913**, 103, 575.
33. Irvine, J.C., **Organic chemistry: aliphatic section**, *Ann. Rep. Prog. Chem.*, **1913**, 10, 54.
34. Macdonald, J.L.A., **The mechanism of the condensation of glucose with acetone**, *J. Chem. Soc.*, **1913**, 103, 1896.

### 1914

35. Denham, W.S.; Woodhouse, H., **Methylation of cellulose, Part II. Hydrolysis of methylated cellulose**, *J. Chem. Soc.*, **1914**, 105, 2357.
36. Gilmour, R., **A contribution to the study of the constitution of the methyl pentoses, Part I. Synthesis of an i-methyl tetrose and an i-methyl tetritol**, *J. Chem. Soc.*, **1914**, 105, 73.
37. Haworth, W.N.; King, A.T., **The constitution of camphene, Part II. Experiments on the synthesis of several degradation products of camphene**, *J. Chem. Soc.*, **1914**, 105, 1342.
38. Haworth, W.N.; Fyfe, A.W., **Synthetic hydrocarbons allied to the terpenes**, *J. Chem. Soc.*, **1914**, 105, 1659.
39. Irvine, J.C.; Hynd, A., **Conversion of *d*-glucosamine into *d*-mannose**, *J. Chem. Soc.*, **1914**, 105, 698.
40. Irvine, J.C.; Paterson, B.M., **Influence of configuration on condensation reactions of polyhydroxy-compounds**, *J. Chem. Soc.*, **1914**, 105, 898.
41. Irvine, J.C.; Paterson, B.M., **The formation of ethers from mannitol. An example of steric hindrance**, *J. Chem. Soc.*, **1914**, 105, 915.
42. Irvine, J.C.; Hogg, T.P., **Partially methylated glucoses, Part III. Monomethylglucose**, *J. Chem. Soc.*, **1914**, 105, 1386.
43. Irvine, J.C.; Fyfe, A.W., **The reactions of  $\alpha$ -amino- $\beta$ -hydroxy-compounds as cyclic structures**, *J. Chem. Soc.*, **1914**, 105, 1642.
44. Irvine, J.C., **Organic chemistry: aliphatic section**, *Ann. Rep. Prog. Chem.*, **1914**, 11, 63.

During their period 1915-1919 a large amount of research on a variety of topics associated with war work was carried out in the Department, and reports on this work, not included in this list of Departmental Publications, were presented to the appropriate government

departments and agencies.

## 1915

45. Haworth, W.N., **A new method of preparing alkylated sugars**, *J. Chem. Soc.*, **1915**, 107, 8.
46. Irvine, J.C.; Macdonald, J.L.A.; Soutar, C.W., **Condensation of acetone and benzaldehyde with glycerol. Preparation of glycerol  $\alpha$ -methyl ether**, *J. Chem. Soc.*, **1915**, 107, 337.
47. Irvine, J.C.; Fyfe, A.W.; Hogg, T.P., **Derivatives of a new form of glucose**, *J. Chem. Soc.*, **1915**, 107, 524.
48. Irvine, J.C.; Steele, E.S., **Influence of configuration on the condensation reactions of polyhydroxy-compounds, Part II. The effect of boric acid on the conductivity and specific rotation of methylated derivatives of mannitol**, *J. Chem. Soc.*, **1915**, 107, 1221.
49. Irvine, J.C.; Steele, E.S., **Mechanism of mutarotation in aqueous solution**, *J. Chem. Soc.*, **1915**, 107, 1230.
50. Irvine, J.C.; Macdonald, J.L.A., **Formation and preparation of glucose monoacetone**, *J. Chem. Soc.*, **1915**, 107, 1701.
51. Irvine, J.C., **A simple apparatus for filtration under diminished pressure**, *Biochem. J.*, **1915**, 9, 321.
52. Irvine, J.C., **Organic chemistry: aliphatic section**, *Ann. Rep. Prog. Chem.*, **1915**, 12, 63.
53. Ross, W., **Origin of the glucosamine obtained in the hydrolysis of *Boletus edulis***, *Biochem. J.*, **1915**, 9, 313.

## 1916

54. Haworth, W.N.; Law, J., **The constitution of the disaccharides, Part I. The structure of sucrose**, *J. Chem. Soc.*, **1916**, 109, 1314.
55. Irvine, J.C.; Robertson, G., **Evidence indicating the existence of a new variety of fructose. A reactive form of methyl fructoside**, *J. Chem. Soc.*, **1916**, 109, 1305.
56. Irvine, J.C., **Organic chemistry: aliphatic section**, *Ann. Rep. Prog. Chem.*, **1916**, 13, 66.

## 1917

57. Denham, W.S.; Woodhouse, H., **Trimethylglucose from cellulose**, *J. Chem. Soc.*, **1917**, 111, 244.
58. Irvine, J.C.; Haworth, W.N., **Methylating and ethylating agents**, *Roy. Soc. (London) Report*, **1917**.

59. Irvine, J.C., **Obituary notice on T. Purdie**, *J. Chem. Soc.*, **1917**, *111*, 359.
60. Irvine, J.C., **Organic chemistry: aliphatic section**, *Ann. Rep. Prog. Chem.*, **1917**, *14*, 61.

## 1918

61. Cunningham, M., **A reinvestigation of the cellulose-dextrose relationship**, *J. Chem. Soc.*, **1918**, *113*, 173.
62. Cunningham, M., **A new form of methylgalactoside and its conversion into octamethyldigalactose and into a methyldigalactoside**, *J. Chem. Soc.*, **1918**, *113*, 596.
63. Cunningham, M., **The application of the auto-condensation powers of  $\gamma$ -sugars to the synthesis of carbohydrate complexes**, *J. Chem. Soc.*, **1918**, *113*, 604.
64. Haworth, W.N.; Leitch, G.C., **Constitution of the disaccharides, Part II. Lactose and melibiose**, *J. Chem. Soc.*, **1918**, *113*, 188.
65. Irvine, J.C., **Organic chemistry: aliphatic section**, *Ann. Rep. Prog. Chem.*, **1918**, *15*, 48.
66. Steele, E.S., **Constitution of crystalline  $\beta$ -methyl fructoside**, *J. Chem. Soc.*, **1918**, *113*, 257.

## 1919

67. Haworth, W.N.; Leitch, G.C., **The constitution of the disaccharides, Part III. Maltose**, *J. Chem. Soc.*, **1919**, *115*, 809.
68. Irvine, J.C.; Dick, J.S., **The constitution of maltose. A new example of degradation in the sugar group**, *J. Chem. Soc.*, **1919**, *115*, 593.
69. Irvine, J.C., **Organic chemistry: aliphatic section**, *Ann. Rep. Prog. Chem.*, **1919**, *16*, 55.