

FOREWORD

IN this Volume, Organic Chemists from all over the world pay tribute to the memory of Professor Henry Stephen, O.B.E., D.Sc., F.R.I.C. who died at the Radcliffe Infirmary, Oxford on July 6th, 1965.

Born in Manchester on July 10th, 1889, Henry Stephen displayed early evidence of his academic ability, when in 1904 he was awarded a Foundation Scholarship to the Manchester Grammar School. Although there are few records for the period during which he was in attendance at school, it is known that his scientific promise was recognised and rewarded with several prizes and a Manchester Education Committee Entrance Scholarship to the University of Manchester in 1908.

As a student in the Department of Chemistry during the Dixon-Perkin-Rutherford epoch, Henry Stephen in association with Robert Robinson and Chaim Weizmann became a personal embodiment of the new spirit of Organic Chemistry that was developed in Manchester University and spread from there not only to Oxford and Cambridge but throughout the Commonwealth and the English speaking world. In 1911, he was awarded the Graduate Scholarship in chemistry by the Manchester University and the Baeyer Fellowship in chemistry in 1912.

In 1911, as a research assistant to Dr Chaim Weizmann, later President of Israel, Henry Stephen worked on the chemistry of the Amino acids and plant colouring matters. In 1914, as an 1851 Exhibition Scholar for Great Britain, he intended to do postgraduate research in Germany but was prevented from doing so by the outbreak of war. Following upon the use of poison gases in the 1914-1918 war, the Manchester Chemistry department undertook for the British Government research into the production of war gases and his energies were directed into the necessary research. Arising from this work, conducted in association with Myers, later Sir James Myers, Principal of the Manchester College of Technology, he identified the Mustard gas used and developed a process for its production by the interaction of sulphur chloride and ethylene, which work was recognised by the award of the O.B.E.

After the first world war, Henry Stephen continued research at Manchester University while senior lecturer in chemistry. In 1925, he discovered the reaction in organic chemistry now known as the Stephen Reaction. This reaction concerns the conversion of nitriles into aldehydes by stannous chloride reduction of the nitriles to form an intermediate imido chloride. His work in the Manchester Research School extended over a period of seventeen years with many original publications in various fields of organic chemistry, until his appointment in 1926 to the Chair of Chemistry at the University of the Witwatersrand, Johannesburg, S. Africa.

Three decades of his life were devoted to the establishment in the first instance of a department of Organic Chemistry and later a united and well integrated Department of Chemistry and Chemical Engineering. During this period, the University and also Industry in S. Africa had every reason to be proud of the tradition of research endeavour and publication that was being established. In particular, the Department of Organic Chemistry under the inspiration and enlightened leadership of Professor Stephen supported in ever increasing numbers dedicated research workers many of whom in their turn carried forward the spirit of their great teacher. By the time of his retirement, in 1954, a vigorous and modern department had been established—one

that was ripe and ready for the development of newer fields of study and the sophistication of techniques which the growing resources of the University have since made possible.

In much of his research work in S. Africa, Professor Stephen was assisted by his wife, Dr Theodora Stephen and in retirement they together continued to devote all their time and experience to the advancement of Organic Chemistry.

In 1956, they returned to Great Britain and at the invitation of Sir Robert Robinson, Henry Stephen became the first Executive Editor of Tetrahedron, an International Journal of Organic Chemistry founded by Sir Robert Robinson.

Without the tremendous effort and dedication which Professor Stephen gave to Tetrahedron right up to the time of his death, the Journal may not have become one of the most important Journals of Organic Chemistry in the world today. As a token of recognition, leading organic chemists from many countries in the world have participated by contributing original work to this Volume of Tetrahedron dedicated to his memory.

Professor Henry Stephen was always grateful during his life for the opportunities granted him to serve Organic Chemistry, his students, his many friends and his family. He is survived by his wife and four children who hope to preserve his spirit of dedication and service.

His four children are

Dr J. Stephen, a Principal Scientific Officer at Harwell Atomic Energy Research Establishment. Dr Edith Stephen (Sherwood), Professor of Organic Chemistry, Whittier College, California, U.S.A. Professor M. J. Stephen, a Theoretical Physicist at Yale University, Connecticut, U.S.A. Dr R. O. Stephen, Research Assistant Professor of Nuclear Physics, University of Washington, Seattle, U.S.A.