## **Preface**

## AN APPRECIATION OF ARTHUR BIRCH, 1915-1995

In the development of British Organic Chemistry, Manchester occupies a prominent place. Not only had it seen many of the pioneers, including Lapworth, Perkin Jr., Robinson, Heilbron, Todd and Jones, but in several cases it also enjoyed the peak of their creativity, before the great chemists moved on to stellar heights elsewhere. That tradition of creativity and innovation must have weighed in the assessors' minds when Arthur Birch was invited to take up the Chair of Organic Chemistry in 1956, only four years after his apparently permanent return from the UK to Australia. At that time he was already a world-renowned chemist, because of his almost single-handed demonstration of metal-ammonia reduction as a major synthetic method, and also for his insights into polyketide biosynthesis. In the latter area he had revived and extended Collie's speculations on the acetate-based origin of the carbon framework in many secondary metabolites, providing experimental evidence for the first time. He stayed at Manchester for eleven years, seeing in the new Chemistry building on Brunswick Street before returning to his homeland. There he directed the newly founded Research School of Chemistry in Canberra, intended by Birch and Nyholm as a counter to the traditional brain drain of Australia's best to the UK. The British scene in Organic Chemistry might have developed differently if Arthur Birch had stayed longer.

For his research students, working with AJB was a unique and unforgettable experience. He never ran a group of more than a dozen in those days (or even later), and supervised directly rather than through a lieutenant system, although he engaged in a productive collaboration with Rod Rickards for the latter part of the Manchester period, and in Canberra. His life was punctuated by overseas travel, with major consultancies in Mexico City, Palo Alto and Basel, as well as lectures in response to frequent far-flung invitations. When in Manchester, research was his absolute priority and frequent trips round the Schorlemmer and Heilbron laboratories, always preceded by the fragrance of a well-smoked Havana, alleviated the demands of administration. Every member of the group quickly learned accurately to parody 'Anything new?' in a Sydneyside drawl and one of us still greets his research students in this manner (but without the accent) to this day. As a supervisor he was a good listener, and generally used a light touch where he could. He was instinctive and intuitive in his assessments and had the knack of putting new information into immediate context so that his next suggestion was likely to be an incisive one.

Individuals with a genuine overview of Organic Chemistry are rare, but Arthur Birch was one of them. At the beginning of the nineteen-sixties he was predicting the synthetic potential of organosulfur chemistry and anticipating metal-ion catalysis of the Diels-Alder reaction. These were two among many suggestions which bore fruit in other hands. As a lecturer, he relied on content rather than style. Many a Manchester graduate of the sixties will remember the final year course on metal-ammonia reductions and should retain their lecture notes as the definitive story of the Birch reduction. We salute the passing of one of Organic Chemistry's greatest non-Nobel Laureates.

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Another warm tribute to the memory of Arthur Birch has been made in a review of his recently published biography, "To See the Obvious", American Chemical Society Publications. This appeared in *Tetrahedron News*, No. 7, Sept. 1996 (Elsevier Science Ltd).

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