

## Colin Eaborn

### *Pioneer of Organosilicon Chemistry*



Colin Eaborn became internationally famous with the appearance in 1960 of his seminal textbook *Organosilicon Compounds*, which had a major influence on the development of what has become one of the most prolific areas of organometallic chemistry, with extensive applications in organic synthesis, catalysis and materials science. This was recognized as early as 1964, when Eaborn became the third ever, and the first non-US awardee of the American Chemical Society's Frederick Stanley Kipping Award for Organosilicon Chemistry. The centenary of Kipping's discovery of the first silicone was commemorated at Nottingham by the RSC on 17 March with lectures from three former Sussex PhDs.

Eaborn's research approach was that of a physical-organic chemist, doubtless influenced by his background (PhD in 1947 with E.D. Hughes at Bangor and postdoctoral stay with S. Winstein at UCLA, 1950–51). He began his independent studies at Leicester in 1947 and left there as Reader in 1961 to become one of the four foundation science professors of the University of Sussex. He retired from his Chair in 1988, an event that was marked by a 1-day symposium with lectures by some of his former students and by a commemorative issue of the *Journal of Organometallic Chemistry* (of which he had been a founding regional editor in 1964), with 67 papers by his former colleagues and admirers.

Eaborn can truly be regarded as 'the father' of chemistry at Sussex. He was the first Dean (up to 1968) of the School of Molecular Sciences; he provided an environment in which the school flourished. He became the first Pro-Vice-Chancellor (Science), a position he occupied from 1968 to 1972.

My arrival at Sussex was a turning point in my academic career. So many colleagues, particularly those who joined in the early days, share this view; for many, Sussex was

their first university appointment. Those early years were full of excitement and comradeship. Eaborn led by innovation and inspiration, rather than by a 'hands-on' approach. New teaching methods were introduced. The traditional boundaries of the subject became meeting points rather than barriers. The week-long 'crash courses' were taught by three members of faculty who not only interrogated the students, but also one another; those held residually in the Isle of Thorns were especially memorable. The MSc course in Organometallic Chemistry was the first of its kind in the UK. Perhaps the most remarkable achievement was the BSc by thesis, in which the student's primary commitment was to a research project supervised by two members with widely differing areas of expertise. Sadly, with the introduction of stringent health and safety regulations, this experiment had to be abandoned.

Eaborn's 'Sussex Chemistry' became a magnet for new stellar appointments, of which Joseph Chatt's in 1964, with his Unit of Nitrogen Fixation, was the first, followed by so many others, including as the most prominent by the two Nobel Laureates J. W. Cornforth and A. J. P. Martin, and by A.W. Johnson and R. Mason. By the late 1970s the school numbered seven Fellows of the Royal Society amongst its faculty, and many of the then younger colleagues were to achieve distinctions, most notably H. W. Kroto (Nobel Prize, 1997).

Eaborn's researches flourished on collaborations, in the early days, on physical-organic aspects, with R. W. Bott, D. R. M. Walton, R. Taylor and R. A. Jackson. The role of silicon and the other Group 14 elements in coordination chemistry began with a brief partnership with J. Chatt, then A. Pidcock and finally, for more than 20 years with a wider range of elements, with J. D. Smith. He collaborated with scientists from all over the world; those from Italy, New Zealand and Poland were especially prominent.

Eaborn published more than 550 papers, the last of which are still 'in press'. He received the Royal Society of Chemistry's Organometallic (1974), Ingold (1976), and Main Group Metal (1990) Medals. He was elected FRS in 1970, had an honorary DSc (Sussex, 1988) and was an Honorary Fellow of the University of Wales (Bangor, 2000).

He was very active in scientific affairs at both the national and international level: as the Senior Hon. Sec. of the Chemical Society (1965–1970), as a member of the council of the Royal Society (1978–80, 1988–89), as chairman of two national committees on the relationship between university chemistry courses and the needs of industry and as the UK representative on the British–Italian Mixed Cultural Commission.

Joyce and Colin Eaborn travelled widely and derived great pleasure from their lovely Downland home and garden and the company of friends and colleagues. On one congenial evening, Colin disappeared for a few minutes after dinner, returned and put out the lights so that we could watch, from the darkened conservatory, a family of five badgers emerge one after another from the shrubbery to feast on their nightly meal of kitchen scraps—a delightful and memorable experience.

The achievements of Colin Eaborn are remarkable for their range, diversity and influence. To his students and colleagues

he brought inspiration, friendship, companionship and good fellowship, for which we are in his lasting debt. Colin enjoyed a long and happy marriage to Joyce (née Thomas), whom he met in their student days and who survives him.

*Colin Eaborn, chemist and educator: born 15 March 1923; married Joyce Thomas 1949; died Brighton 22 February 2004.*

**Michael Lappert**