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## Lennart Ebersson

by Michael P. Hartshorn and Jan Sandström

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Lennart Ebersson was born in Malmö, Sweden on January 5, 1933, the son of a shop manager Ebbe Ebersson and his wife Margit. His father was employed in a large paint and chemicals shop where Lennart, in his own words, was acquainted with “scores of chemicals in classical pharmacy bottles, with odours and colours to ponder over for an inquisitive mind”. A good selection of the chemical literature was available at home and his early interest in organic chemistry was deepened during his upper secondary school years.

Lennart matriculated in 1950 aged 17 and entered the University of Lund where he was to spend almost all of his life. The degrees of Bachelor and subsequently Licentiate of Philosophy were to follow in 1953 and 1956 respectively. He chose a project in organosilicon chemistry for his PhD work, but the silicon aspect proposed by his supervisor was soon lost when the expected results were pre-published. Instead, Lennart chose his own way and in 1959 he wrote a thesis with the title *Studies in the Succinic and Glutaric Acid Series*. This thesis included work on the electrochemical Kolbe synthesis of substituted succinic acids and was his first step in his study of organic electrochemistry in which he was later to become an acknowledged international expert.

Lennart Ebersson departed briefly from the University of Lund for short periods in military service at the Swedish Research Institute for National Defence (1959–1960) and as a research chemist (1960–1962) at AB Draco, now a branch of Astra Zeneca. In 1962 he returned to the University of Lund, first as docent until 1966 and subsequently as extra professor

(1966–1970), as associate professor (1970–1979) and full professor until his retirement in 1998.

Lennart Ebersson maintained his interest in organic electrochemistry, the chemical consequences of electron transfer at an electrode, throughout his career; he wrote numerous reviews and was a sought-after co-author of book chapters in this area until the early 1990's. Gradually from the mid-1970's his interests extended to electron transfer between molecules and ions during chemical reactions in solution. Significant as an indication of his thinking in this latter field was his espousal of the Marcus theory in his monograph *Electron Transfer Reactions in Organic Chemistry*. This led him into the then contentious debate over the postulation of electron transfer in the nitration of aromatic compounds. His subsequent studies of the reactions of the radical cations of aromatic compounds with either nucleophiles or nitrogen dioxide provided much evidence towards a resolution of the matter, some of which is summarized in the review with the provocative title *Ingold's Nitration Mechanism Lives!*

During the 1990's, and in collaboration with one of us (MH), the study of the recombination of the triad  $[\text{ArH}^+ \text{NO}_2 (\text{O}_2\text{N})_3\text{C}^-]$ , formed in the photolysis of charge-transfer complexes of aromatic compounds with tetranitromethane, stimulated Lennart Ebersson's interest in aromatic radical cations. His successful study of the detection of aromatic radical cations using the EPR technique was eventually aided by the use of 1,1,1,3,3,3-hexafluoropropan-2-ol as the solvent. In parallel with his EPR study of radical cations, Lennart Ebersson became interested in the confluence of the spin trapping of free radicals with electron transfer involving the spin trap being used; he reviewed this so-called “inverted spin trapping” in 1998.

Throughout his career Lennart Ebersson received frequent invitations as a guest lecturer at universities and other institutions and at international conferences throughout the world. He was in demand as a consultant acting not only for Astra Draco AB, to whom he retained strong ties since his time there in the early sixties, but also for Bofors Nobelkemi, EKA and Nycomed Innovation AB.

Lennart Ebersson showed an early and considerable talent for administrative work. With his will-power and his fighting spirit he became a driving force in the development of the Chemical Center in Lund. Various, he was Chairman of the Board of the Center, and Dean of the Faculty of Mathematics and Physical Sciences and of its Chemical Section. At the Swedish national level he exercised a considerable influence in matters of research policy. He was a member of the Swedish Academy of Engineering, the Royal Swedish Academy of Sciences, and at the time of his sudden death was Chairman of the Nobel Committee for Chemistry. Earlier he had been a member of the Equipment Board for Swedish Universities and Colleges and Chairman of the Evaluation Group of Swedish Physics. From 1975 until close to his death Lennart Ebersson was Editor of the organic section of *Acta Chemica Scandinavica*, he was a member of the Advisory Board of *Advances in Physical Organic Chemistry*, and a member of the Advisory Board of the *Journal of the Chemical Society, Perkin Transactions 2*. As a tribute to his standing in the world of physical organic chemistry, it is appropriate that this volume is dedicated to his memory.



Lennart Ebersson (1933–2000)