

ANNIVERSARIES AND DATES



SALO GRONOWITZ

(On his 75th Birthday)

On February 12, 2003 the world-renowned scientist in the field of the chemistry of heterocycles Professor Salo Gronowitz (Sweden) will be 75. He was born in Poland, but in 1939 the family moved to Sweden to Göteborg. Gronowitz's scientific career can be considered to have begun in 1947, when he became a student at the renowned University of Uppsala, where he rose to Doctor of Philosophy and continued to work until 1963. Salo Gronowitz fared well not only with the university but also with his tutor, who was the famous Swedish chemist, immensely erudite and imminently engaged particularly in the chemistry of the organic compounds of sulfur, Professor Arne Fredga. It was he who aroused the interest of the young researcher in the chemistry of thiophene, which became the constant passion of Salo Gronowitz and his "visiting card." Since 1953 Gronowitz has published hundreds of papers, the overwhelming majority of which were connected with the chemistry of thiophene. Now he is undoubtedly the most renowned and authoritative expert in this field.

After a brief period of work as professor at the University of Oslo in 1965 Gronowitz became professor of the University of Lund, where for almost 30 years he led the department of "Organic Chemistry 1." Here his talent as scientist and organizer and educator of young scientists manifested itself to the full extent.

Gronowitz's contribution to the chemistry of heterocycles has been enormous. Exceptionally valuable were the researches on the NMR spectra of thiophenes and their analogs, furans, selenophenes and tellurophenes, which he started as far back as 1958 in conjunction with Ragnar Hoffmann. It was in these researches that the chemical shifts and spin-spin coupling constants of the first members of the series and of the most important of the substituted compounds, which have subsequently become standard reference data, were first determined. These data became the basis of the assignment of the signals in the ^1H and ^{13}C NMR spectra of five-membered heterocycles with one heteroatom.

The papers by Salo Gronowitz and Anna-Britta Hornfeldt in the field of hydroxythiophenes and also hydroxyfurans and hydroxyselenophenes, in which the syntheses of these compounds were thoroughly developed and their tautomerism was extensively studied, had long ago already become classics.

Discovered and studied by S. Gronowitz and T. Freid, the ring cleavage in 3-lithium-substituted selenophenes and thiophenes, leading to the corresponding alkylvinyl selenolates and thiolates, was of exceptional interest. The researches in this field not only provided data on the unexpectedly easy opening of the rings but were also extensively developed in synthetic respects.

In later years Gronowitz paid particular attention in his researches to the chemistry of thiophene 1,1-dioxides. It can be said without any exaggeration that his investigations brought new life into this apparently limited and unpromising branch of thiophene chemistry. It would be particularly desirable to mention the discovery by Gronowitz and coworkers of ring transformation–cleavage in 3-halogen-substituted thiophene 1,1-dioxides by the organic compounds of lithium or secondary amines and also tandem dimerization–cleavage leading to the formation of pentasubstituted benzenes.

An extensive cycle of papers by Gronowitz was devoted to aromatic six-membered compounds containing boron and nitrogen atoms, and greatest attention was paid to such systems annellated with a thiophene ring, which he was the first to synthesize and investigate.

The high scientific authority of Gronowitz is reflected in the collective treatise on "Thiophene and Its Derivatives," published in five volumes in 1985-1991 under his editorship and with his participation as author of individual chapters. This treatise summarizes the data that have appeared since the publication in 1952 of the first book of Hartough on the chemistry of thiophene from the same series "Chemistry of Heterocyclic Compounds" under the general editorship of Weissberger and Taylor.

Gronowitz is a member of the Royal Academy of Sciences of Sweden, member of the Nobel Committee, and Honorary Professor of Lund University and was awarded the S. A. Giller medal.

While talking about Salo Gronowitz, it is impossible not to mention the excellent spiritual qualities of this man, so well-known to his numerous friends and colleagues both in Sweden and in other countries – his kindness coupled with solid moral principles, his optimism and good will, and his readiness to provide assistance. Professor Gronowitz has connections with colleagues from Russia and Latvia, many of whom were trained in a department that he led or delivered lectures there. Salo Gronowitz has many times been in Moscow and Riga and has presented reports and lectures at conferences and in scientific institutions – the M. V. Lomonosov Moscow University, the N. D. Zelinsky Institute of Organic Chemistry, and the Latvian Institute of Organic Synthesis. His report at the Sixth Conference of IUPAC on Organic Synthesis (Moscow, 1986), dedicated to the memory of Prof. Ya. L. Gol'dfarb, is to be remembered with particular gratitude.

A fairly detailed bibliography of Gronowitz's work was presented in his comprehensive review, published in issue 11/12 of "Chemistry of Heterocyclic Compounds" for 1994, which was dedicated to the thirtieth anniversary of our journal.

L. I. Belen'kii