

Obituary

Allan Líněk 1925–1984

Allan Líněk passed away on 30 September 1984, after a long, painful and hopeless illness. His death will be felt as a permanent loss by Czechoslovak crystallographers because of the major role he played in the development of X-ray crystallography in his country.

Son of a physician, Allan Líněk was born in Kolín on 22 December 1925. He studied at the Faculty of Mathematics and Physics of the Charles University in Prague in the years 1945–1949. After PhD graduation he began to work in the Physical Research Department of the Czechoslovak concern for machine industry. Later, after the foundation of the Czechoslovak Academy of Sciences in 1952, this department became one of its institutes, which after a series of reorganizations is at present the Institute of Physics.

The beginnings of the scientific career of Allan Líněk coincide with the time at which, after the World War II, the trends of development of the research in physics in Czechoslovakia were formed. He took part in these efforts. Encouraged by the director of the institute, Academician J. M. Bačkovský, to specialize in X-ray single-crystal structure analysis, he began to work in this field as a genuine pioneer, who had no predecessors nor teachers in his own country. Depending only on his personal talent and assiduity, he learnt from books the theoretical and experimental knowledge necessary to solve the structure of ethylenediamine tartrate, a compound without a heavy atom. Its model was exhibited in the Palace of Science at the World Fair in Brussels in 1958.

From his first steps in crystallography Allan Líněk realized the significant role of the automation of computing in X-ray work (he actually made his first calculation by means of a calculating frame and strips). Subsequently, he initiated and took part in the construction of some special relay machines, among them a machine for computing the trigonometric part of structure factors and a machine for

the summation of Fourier series, including a printer. This equipment made possible in the mid-1950's the solution of medium-size structures, and the interest of Allan Líněk at that time was directed towards structural studies of terpenes. It also was the period when he assisted in the education of several young scientists who began to work in X-ray crystallography (they are now well known crystallographers) and to whom he offered the use of all the facilities of his laboratory. By doing so, he influenced the formation of crystallographic groups in other institutes and universities in Czechoslovakia.

In the early 1960's one of the first electronic digital general-purpose computers in the Czechoslovak Academy was installed in Líněk's laboratory and he and his coworkers developed programs for the determination and refinement of structures.

During the last fifteen years Allan Líněk concentrated his interest, with great success, on the studies of heteroboranes.

From the late 1950's Allan Líněk was very active in many national and international scientific organizations. He organized regular meetings of the Czechoslovak crystallographic community, and from 1959 served as the secretary of the National Committee for Crystallography. He was involved in the IUCr for many years; he was member of the Commission on Crystallographic Computing 1963–1966, member of the Executive Committee 1966–1972, Chairman of the Sub-Committee on the Union Calendar 1969–1972, the Union's representative on the Conference Committee of the EPS from 1970 and the Union's representative on the IUPAP Commission on the Structure and Dynamics of Condensed Matter from 1978.

For his scientific achievements, his extensive activity, as well as for his personal qualities – friendliness, helpfulness and dry humour – his memory will always be kept in high esteem by his friends, his coworkers and all who knew him.

JÁN GARAJ

Book Reviews

Works intended for notice in this column should be sent direct to the Book-Review Editor (J. H. Robertson, School of Chemistry, University of Leeds, Leeds LS2 9JT, England). As far as practicable books will be reviewed in a country different from that of publication.

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Physics of amorphous materials. By S. R. ELLIOTT.
Pp. x+386. London: Longman, 1984. Price £25.00.

Though glassy materials have been manufactured for thousands of years, many new materials recently produced in amorphous form having considerable technological promise have produced an explosion of interest in these materials in the last ten years and many properties peculiar to the amorphous phase are now well understood. Nevertheless, the scientific study of non-crystalline materials is one of the newest branches of solid-state physics

and Dr Elliott's book is one of the first works entirely devoted to the expanding field of the amorphous state. In this book, S. R. Elliott provides an introduction to the science of amorphous materials with two aims: to introduce students of different disciplines to this new science and to provide a reference source for researchers interested in the field of the amorphous state.

One may note that his objective is fulfilled perfectly. This book is a good pedagogical approach to the subject with a lucid style, definitions of the usual terms used in this new domain, subject index, glossaries of symbols and abbreviations, copious instructive figures and a collection of exercises at the end of each chapter. But, it is an easy introduc-