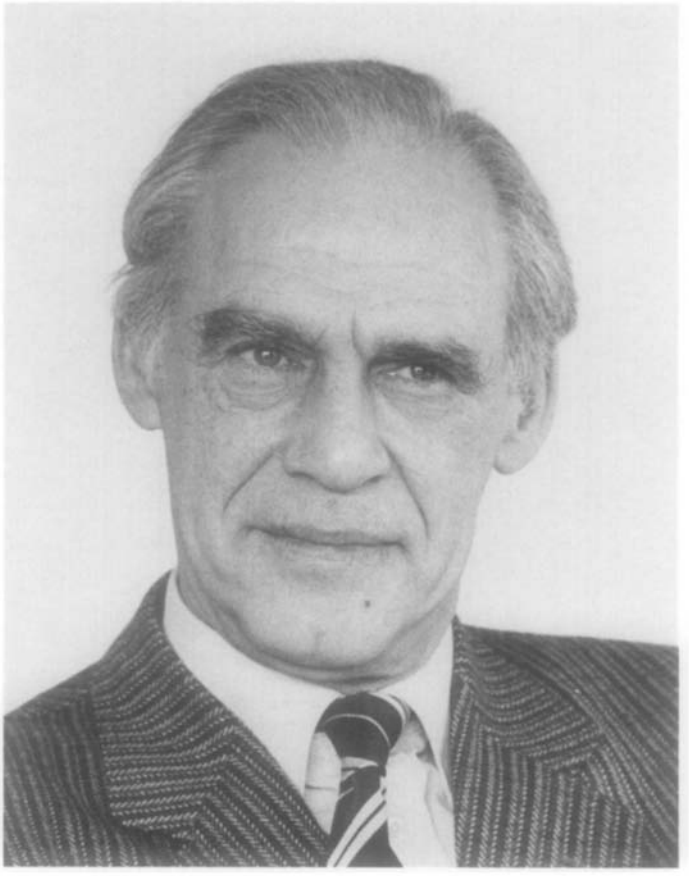

Franz Jellinek

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Dedication to Franz Jellinek

In 1986 Professor Franz Jellinek retired after a period of 25 years as a professor in Inorganic Chemistry at the University of Groningen in the Netherlands.

Franz Jellinek studied chemistry at the University of Utrecht and received his Ph.D. in 1957. His thesis adviser was Professor J. Bijvoet, one of the pioneers of X-ray crystal structure determination. Franz Jellinek's thesis dealt with X-ray diffraction studies of the organic compound muscarin, and it contained an exhaustive study of the phases present in the binary system chromium–sulfur, and the crystal structures of these phases. This investigation of the Cr–S system with X-ray powder diffraction would be the basis for many studies on related systems carried out later in the laboratory in Groningen.

After his Utrecht period, Franz Jellinek spent about one year at laboratories in Norway, Sweden, and Germany. He was appointed in Groningen, first as a lecturer in 1958, and in 1961 as a professor in Inorganic Chemistry. He founded in the same year (1961) the laboratory of Inorganic Chemistry in Groningen and started research in two different fields, solid state chemistry and coordination and organometallic chemistry. The organometallic research group is still flourishing; the studies deal in particular with compounds of the early transition metals.

The main interest of Franz Jellinek, however, was solid state chemistry. With his collaborators, in particular C. F. van Bruggen and G. A. Wiegers, a large number of transition metal chalcogenides were studied. The phase relations were investigated, new compounds were discovered and synthesized, and the crystal structures were determined with X-ray powder and single crystal diffraction. Also equipment was installed to measure the physical properties. The choice of the transition metal chalcogenides proved to be a very fruitful one. These materials which are intermediate between ionic, covalent, and metallic compounds show a wide variety of physical properties.

Many interesting results were published in international journals. The studies by the Groningen group of the binary systems Ta–Se and Nb–S, Se, with its many phases and phase transitions, and also of several ternary systems initiated later research on layer compounds in many other laboratories. The layered materials proved to have interesting physical and chemical properties; charge density waves, intercalation, incommensurate distortions. A highlight in this field was the determination of the incommensurate crystal structure of 1T–TaS_2: a beautiful structure with clusters of 13 Ta atoms. Later investigations revealed, after many unsuccessful attempts in many laboratories, the complicated structure of $Eu_{1-p}Cr_2Se_{4-p}$, which is an incommensurate intergrowth of three separate entities. Interesting to mention are also investigations of copper in a chalcogenide matrix, which proved that copper is always monovalent in a sulphide or selenide matrix, even if the structure formula would indicate divalent copper (examples are CuS_2, $CuSe_2$, CuV_2S_4).

Franz Jellinek also had his part in teaching and research. He taught inorganic chemistry to many generations of inorganic students. With Professor A. Dekker

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he founded in 1970 the Materials Science Research Center (MSC) of the Groningen University. The MSC stimulates the cooperation between physics and chemistry in solid state research.

Franz Jellinek had many contacts and good friends in the international scientific community. One of his friends called him "a perfect human being," but Franz corrected this to "a perfectly human being." He liked to travel and reported all over the world about the interesting results obtained by him and his co-workers in Groningen. He was on the Editorial Board of the *Journal of Solid State Chemistry*, the *Journal of Less-Common Metals*, the *Reviews of Inorganic Chemistry*, and the *Journal of Organometallic Chemistry*.

In recognition of his many contributions to the field of solid state chemistry we dedicate this issue of the *Journal of Solid State Chemistry* to Professor Franz Jellinek.

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