

## JAN KUBISZ

The mineralogical world suffered a loss in the tragic death of Jan Kubisz in a motor accident outside Toronto on September 23, 1972. Dr. Kubisz had just attended the International Geological Congress as an official delegate from the Institute of Mining and Metallurgy, Cracow, Poland. Born in Cieszyn in 1926, he attended Jagiellonian University in Cracow and obtained a Master of Philosophy degree in Chemistry and Mineralogy in 1952. At the Institute of Mining and Metallurgy, he was awarded a Doctor of Technical Sciences in 1963, became a Docent of Technical Sciences in 1967, and attained the rank of Assistant Professor in 1971.

The research of Dr. Kubisz covered a broad span, having included investigations of zinc, lead, copper and iron sulphides, manganese oxides, iron and magnesium sulphates, clay minerals and hydronium-bearing minerals. Some of this research was carried out by Mössbauer resonance spectroscopy, other studies using the more conventional methods of chemical and X-ray mineralogy. In all, he published 64 papers. At the time of his death he was Secretary of the Mineralogical Society of Poland and assistant editor of *Mineralogia Polonica*.

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## BOOK REVIEWS

THE ELECTRON-OPTICAL INVESTIGATION OF CLAYS. Edited by J.A. Gard and published by the Mineralogical Society (Clay Minerals Group). London, (1971). 381 pp., 108 figs., 104 plates (electron micrographs). 12.50 Sterling.

This excellent book is the latest of a series of monographs published by the Mineralogical Society on methods of investigation of clay minerals. The stated purpose of the book is to avoid a mere display of electron micrographs but rather to explain morphological differences in terms of the structures and properties of the minerals concerned. The techniques have been restricted to electron microscopes and diffraction cameras although it is admitted that future reviews must take cognizance of the scanning electron microscope and electron microprobe analyser.

This book can be compared with "Atlas of Electron Microscopy of Clay Minerals and their Admixtures" which is another text with a similar content. The latter contains beautiful micrographs but lacks the technique and theoretical background so admirably presented in the Mineralogical Society publication.

Introductory chapters include a review of specimen preparation and a study of the interpretation of electron micrographs. The latter includes electron diffraction studies for interpretation of crystal structure as well as the morphological range of crystals within groups (i.e. kaolinite group) and between groups (i.e. between the kaolinite and serpentine groups). The relationships of morphology to crystal chemistry and structure are also discussed.

The major groups of clay minerals which are described include the kaolins, serpentines, smectites, micas, palygorskites and sepolites, chlorites, silica minerals, oxides of iron, aluminium and manganese, allophanes and imogolites. There is a praiseworthy volume of information about methods of specimen preparation and experimental techniques and interpretation of results for each of these groups.

This volume is the latest, if only, complete compendium of electron microscopy of clays incorporating techniques and results. It is a grand effort by the Mineralogical Society and should be the prized possession of all serious workers in electron microscopy of clays.

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OPTISCHE BESTIMMUNG DER GESTEINSBILDENDEN MINERALE, by W. E. TRÖGER. Teil 1. Bestimmungstabellen 4. Auflage (Optical determination of rock-forming minerals. Part 1. Determinative Tables 4. Edition). Stuttgart, E. Schweizerbart (Nägele & Obermiller), 1971, 188 p., 112 diagrams and 264 figures, a color interference chart (Michel-Lévy) and two stereograms for U-stage plagioclase determination, DM 42.

The present, fourth edition of Tröger's well known tables — first published in 1952 — has been revised and updated by Hans Ulrich Bambauer, Franz Taborszky and Hans Dieter Trochim. The illustrations, in part redrawn, have been complemented by a number of tables and determinative diagrams. The feldspars are particularly well covered. In fact, the graphs for the determination of plagioclase by optical methods given in this book are easily among the most comprehensive and up to date given in any compilation of this kind.

The tables largely retain Tröger's widely acknowledged format: a synoptic key diagram, clear layout of morphological and optical data and carefully designed text-figures. An explanation of the nomenclature, abbreviations and symbols used is given in German, English and French. The text-volume, part 2 of Tröger's work, is on the other hand so far only available in German (2nd ed. 1969, 822 p., 142 DM).

Tröger's Determinative Tables will no doubt prove very useful to every petrographer.

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