American Mineralogist, Volume 82, pages 211–212, 1997

Memorial of František Čech 1929–1995

Pavel Povondra

Institute of Geochemistry, Mineralogy and Mineral Resources, Charles University, Prague, Czech Republic

František Čech was born on August 17, 1929, in Měřín near Velké Meziříčí, Czech Republic. He grew up in a spectacular and interesting part of the Českomoravská vrchovina Plateau and lived there until his high-school graduation in 1950. This region evoked his deep interest in the natural sciences and in mineralogy and botany in particular. He later attended the Faculty of Science of Charles University at Prague, where he studied mineralogy and petrology in the years 1950–54, completing his RNDr degree in 1954. František then enrolled in a doctoral program, received his Ph.D. degree in 1962, and was appointed associate professor of mineralogy to the same faculty in 1965. During this period, he spent one year at Moscow State University. He was appointed full professor in 1979, and his scientific career culminated eight years later when he received a D.Sc. degree.

Professor Čech was appointed chairman of the Department of Mineralogy, Geochemistry and Crystallography at the Faculty of Science of Charles University in 1976 and remained at this position until 1990. He was also elected Dean of the Faculty of Science in 1970–71 and later in 1974–80.

Pegmatites were his lifelong major subject of investigation. He devoted numerous studies to the geochemistry, mineral assemblage, texture, and origin of these rocks. He was particularly interested in beryllium minerals and in rare phases of Sn, Nb, Ta, and Ti oxides, and then in micas and the tourmaline group. He paid special attention to natural phosphates of pegmatites and similar mineral assemblages. Among the problems he solved, the following are noteworthy: the mesolite-sarcopside problem, the relation of turquoise to similar Cu-Al phosphates, revision of amorphous phosphates of Fe, Mn, and Mg, and studies of the physical properties of $AlPO_4 \cdot 2H_2O$ varieties. These are just some of the topics of his broad scientific program. His extraordinary diligence, systematic work, and the broad spectrum of his professional knowledge enabled him to solve these problems in times when the electron microprobe and other sophisticated methods of investigation of microscopic particles were not available. His cooperation with M.E. Mrose, who studied the structure of phosphates, obviously contributed to the success of some of these projects. He enriched the system of mineralogy by the discovery and identification of three new mineral species of the telluride group and two secondary sulphoarsentates. However, he also studied other mineral assemblages discovered during extensive mineral exploration and mining activities in the former Czechoslovakia.

His scientific activities are documented in almost 90 original papers in periodicals and in a chapter devoted to pegmatites of Czechoslovakia. He also authored several textbooks, teaching materials, and reviews. Professor Čech, because of his scientific authority in mineralogy, was for a long time the chairman of the Czech National Committee for Mineralogy, a national representative of the International Mineraological Association (IMA), and a member of the IMA's Commission of New Minerals and Mineral Names. He was also active in numerous scientific committees and editorial boards of Czech and foreign institutions and periodicals (Universities of Paris and Toulouse). František Čech was a life fellow of the Mineralogical Society of America, which he joined in 1956.

Professor Čech had an enormous influence on the prog-

0003–004X/97/0102–0211$05.00

ress in mineralogy in his country. His sophisticated teaching methods, broad knowledge, hard work, and obvious love of mineralogy strongly affected his students. His noble attitude toward people, his understanding and willingness to help anybody at any time made him attractive and indispensable to his colleagues at the University and to a broad spectrum of experts in applied mineralogy and related subjects. He lived in a politically turbulent and uneasy period, which was unfavorable to creative work. Nevertheless, he kept trying to hold the torch that he received from his predecessors. It was a great honor for us to be with him and to help him in this effort. His work, achievements, and exemplary life will remain forever in our memories. Succeeding genrations of earth scientists will be reminded of his work by the mineral that bears his name, čechite.

Selected bibliography of František Čech

With K. Paděra. Studium der Phosphate aus den Pegmatiten von Otov bei Domažlice. Acta Univ. Carol., Geol., 21–28, 1958.

With E. Slánský. Strunzit als Verwitterungsprodukt aus der Mn-Lagerstätte von Morašice. N. Jb. Miner. Mh., 200–203, 1959.

Occurrence of stokesite in Czechoslovakia. Mineraol. Mag., 32, 673–675, 1961.

With P. Povondra and E. Slánský. Ueber Planerit aus Poniklá bei Jilemnice (Nordböhmen) und über die Beziehung zwischen Plane-rit, Coeruleolactit und Taürkis. N. Jb. Miner. Abh., 96, 1–30, 1961.

With P. Povondra and K. Paděra. The sarcopside problem. Acta Univ. Carol., Geol., 145–157, 1962.

With P. Černý and P. Povondra. Review of ilmenorutile-strüverite minerals. N. Jb. Miner. Abh., 101, 142–172, 1964.

With E. Slánský. X-ray powder study and thermal investigation of $AlPO_4 \cdot 2H_2O$ minerals. Acta Univ. Carol., Geol., 1–30, 1965.

With E. Slánský. Infrared spectra of the polymorph $AlPO_4 \cdot 2H_2O$. Acta Univ. Carol., Geol., 287–294, 1968.

With Z. Johan and P. Povondra. La barbosalite de la pegmatite d'Angarf-Sud; plaine de Tazenakht, Anti-Atlas, Maroc. Not. Serv. Géol. Maroc., 32(241), 121–128, 1972.

Manganoan tapiolite from northern Moravia, Czechoslovakia. Acta Univ. Carol., Geol., 37–45, 1974.

With M. Rieder and S. Vrána. Drysdallite, $MoSe_2$, a new mineral. N. Jb. Mineral. Mh., 433–442, 1973.

With I. Vavřín. Poubaite, $PbBi_2(Se,Te,S)_4$, a new mineral. N. Jb. Miner. Mh., 9–19, 1978.

With P. Povondra. Sodium-beryllium-bearing cordierite from Haddam, Connecticut, U.S.A. N. Jb. Miner. Mh., 203–209, 1978.

With J. Hak. Tetrahedrite high in silver, zinc and cadmium from Jihlava, Czechoslovakia. Čas. Mineral. Geol., 24, 83–87, 1979.

With I. Vavřín. Součekite, $CuPbBi(S,Se)_3$, a new mineral of the bournonite group. N. Jb. Mineral. Mh., 289–295, 1979.

With P. Povondra. A re-examination of bořickýite. Tschermaks mineral. petrogr. Mitt., 26, 79–86, 1979.

With Z. Johan. Nouvelles données sur la haïnite, et ses relations cristallochimiques avec götzenite, $Na_2Ca_5Ti(Si_2O_7)_2F_4$. C.R. Acad. Sci. Paris, t.308, Série II, p. 1237–1242, 1989.

ERRATUM

Neutron powder diffraction study of hydrogarnet to 9.0 GPa, by George A. Lager and Robert B. Von Dreele (v. 81, 1097–1104, 1996).

We regret that the printer's error changed a paragraph on page 1101 of this article. The paragraph should read:

A second-order Birch-Murnaghan fit to the unit-cell volumes in Table 1 yields a bulk modulus $K_0 = 52(1)$ GPa for $K_0' \equiv 4.0$. This value is lower than that calculated by Olijnyk et al. (1991) on the basis of energy-dispersive X-ray diffraction data [$K_0 = 66(4)$ GPa for $K' = 4.1(5)$]. In the latter study, an average unit-cell parameter at each pressure (5.7–42.3 GPa) was calculated from the positions of four reflections (321, 400, 420, and 521) fit by pure Gaussian profiles. With the assumption that the pressure calibration is comparable in both studies, the K_0 value determined in the present study should be more precise because the whole profile was fit by least-squares methods. However, systematic differences between neutron and X-ray diffraction results are not unusual and, in this case, could be due to a variety of factors, such as H-D isotope effects, deviatoric stress, sample placement, or energy calibration.