



**WACŁAW RYKA**  
(1931—1996)

On May 20th 1996 died suddenly in Yellowstone during official trip Prof. Wacław Ryka, founder-member of the Mineralogical Society of Poland, long-year member of its council and in 1978-1988 vice-president of our Society.

Wacław Ryka was born on July 23th 1931 in Lwów as the son of Wilhelm, a printer, and Zofia née Dobosz. Original roots of his family were embedded in Polish Inflatns and related with the Livonian branch of Teutonic Order. Their ancestors moved there from Westphalia in 13th century.

W. Ryka spend his youth in Lwów, whilst secondary school and university studies he accomplished in Cracow. As one of favourite students of Prof. A. Gawęł, he graduated in 1956 from the oldest Polish Department of Mineralogy and Petrography of the Jagellonian University with a dissertation 'Diabases of the environs of Bardo (Holy Cross Mts.)'. In the same year W. Ryka was employed in the State Geological Institute in Warsaw, where he got in 1961 the Ph.D. degree with a dissertation 'Metamorphic phenomena in the margin of East European plate', supervised by Prof. A. Łaszkiwicz. In 1969 he passed the habilitation test with a thesis 'Charnockites from Podlasie region', being nominated extraordinary professor in 1977 and ordinary one in 1985. In the years 1982—1989 Prof. Ryka was the director of the State Geological Institute.

The long list of publications (207 positions) of Prof. Ryka is not yet closed since actually in print is the monograph on Suwałki basic massif, initiated, edited and, to large extent, written by him. In fairly wide subject matter of his research works several main trends can be distinguished:

1. Studies on crystalline basement of NE Poland, especially on its tectonomagmatic evolution based on detailed examination of samples from more than 100 boreholes what allowed to elaborate its lithostratigraphic characteristics and structural scheme. The results of these studies, supplemented by geophysical data, were published in collective volume 'Geological atlas of crystalline basement of Polish part of East-European platform' (1982), edited by Prof. W. Ryka and awarded with State Prize.

2. Investigation of regional metamorphic phenomena under conditions of greenschist facies in Paleozoic rocks of NE margin of the Upper Silesian coal basin.

3. Correlation of effusive rocks of Rotliegende in Polish Lowlands.

4. Evidencing the role of bacteria in the origin of sulphur deposits in the Fore-Carpathian depression.

5. Discovery and complex studies of carbonatites and of rare earth concentrations associated with them in the Tajno structure.

Taking into account that own investigations represent but a fragment of a larger whole, Prof. Ryka paid considerable attention to collecting and ordering the existing materials. Consequently, he was the coauthor of 'Stratigraphic Dictionary' and of characteristics of Precambrian rocks in the monograph 'Geology of Poland', as well as the main author of 5 volumes of 'Catalogue of chemical analyses of rocks and minerals in Poland'. These data were utilized in the papers prepared in cooperation with H. Pendias entitled 'Average chemical composition of crystalline rocks in Poland' (1979) and 'The chemistry of Polish igneous rocks in regional and petrogenetic aspects' (1981). Particularly important in this branch of his activity is 'Petrographic Dictionary' (1982, 1991), elaborated in collaboration with A. Maliszewska. It was awarded with the Prize of Scientific Secretary of the Polish Academy of Sciences, as well as translated and edited in Russian (1989).

Prof. Ryka was very active in the Commissions on Geology and Mineralogy of the Polish Academy of Sciences, international research programs of IGCP and Europrobe and cooperated with the International Union of Geological Sciences. He was coorganizer of several annual meetings of the Polish Geological Society, being the chairman of its 64th meeting in 1993.

Considerable attention was paid by Prof. Ryka to the promotion of younger scientific staff. He was the supervisor of 12 Ph.D. theses and the reviewer of 11 doctor's and 6 habilitation dissertations. W. Ryka was acting as member of editorial boards of several Polish and foreign periodicals, as 'Mineralogical Abstracts', 'Mineralogia Polonica', 'Archiwum Mineralogiczne', 'Geological Quarterly' and the editor of monographs of Tajno and Elk massifs in the series 'Prace PIG'.

In the last years his scientific interests were focused mainly on the genesis of carbonatite massifs and rare earth deposits associated with them, as well as on the origin of evaporitic salt deposits. In these fields he cooperated with scientific centres in USA and Sweden. From the last scientific visit in Yellowstone, related with these contacts, he did not return....

Prof. Ryka, till the last days of his life, participated in scientific programs devoted to petrologic studies of Precambrian crystalline complexes of the Baltic shield and of the basement of East-European platform and Ukrainian shield. Remembering the town of his childhood, he paid particular attention to cooperation with Ukrainian geologists. His merits were appreciated by Ukrainian Academy of Sciences which conferred on him the distinction of its foreign member. In 1994 Prof. Ryka was elected to corresponding member of the Polish Academy of Arts and Sciences in Cracow. It should be emphasized that his vivid contacts with Cracovian scientific centre were corresponding with his affection for history and tradition. He was a collector of old books and coins, stamps, as well as of decorations, medals and badges. Moreover, Prof. Ryka was gathering various geological 'Miscellanea' as old handbooks, anecdotes concerning geology and geologists, postcards with geological maps and motives.

Prof. Waław Ryka left us in the period of full development of his creative forces. Though he could not carry into effect all his projects and ideas, outstanding scientific achievements of Prof. W. Ryka ensure him unquestionably a permanent and significant position in Polish geology and mineralogy.

Hubert SYLWESTRZAK

### Selected papers of Waław Ryka

- 1957: Adinol contact in Bardo (in Polish). *Kwart. Geol.* 1, 133—166.
- 1957: New observations on the diabase of Bardo (in Polish). *Kwart. Geol.* 1, 329—349.
- 1957: On the diabasic intrusion in the western part of the Bardo basin. *Kwart. Geol.* 1, 156—159.
- 1959: Transformations of diabases and surrounding rocks of Widełki (in Polish). *Kwart. Geol.* 3, 160—194.
- 1961: On problems of the Precambrian substartum of northeastern Poland, in view of petrographic investigations of metamorphic rocks from Sokółka, Kruszywna and Mielnik (in Polish). *Kwart. Geol.* 5, 497—522.
- 1964: On structure and stratigraphy of crystalline basement in Northeastern Poland (in Polish). *Kwart. Geol.* 8, 42—57.
- 1966: Origin of amphibolite assemblages of Łuków (in Polish). *Kwart. Geol.* 10, 1, 20—30.
- 1969: Charnockites in the Podlasie Region (in Polish). *Biul. IG* 225, 109—205.
- 1968: Secondary rhyolites in the Baltic part of West Pomerania (in Polish). *Kwart. Geol.* 12, 843—851.
- 1974: Cambrian bentonites of the Zawiercie area. *Przegl. Geol.* 22, 79—81.
- 1974: Diabase-lamprophyre association on the north-east border of the Upper Silesian Coal Basin (in Polish). *Biul. IG* 278, 35—63.



12. 1978: Permian volcanic rocks in Baltic part of the Western Pomerania (in Polish). *Kwart. Geol.* 22, 753—772.
13. 1979: On the origin of anorthosites and associated iron ores of the Suwałki Massif. *Biul. IG* 318, 11—24.
14. (co-author Pendias H.) 1979: Average chemical composition of the crystalline rocks of Poland. *Miner. Polon.* 10, 29—38.
15. (co-author and co-editor), 1982: Geological atlas of crystalline basement in Polish part of the East-European Platform.
16. (co-author Maliszewska A.) 1982: Petrographical dictionary (in Polish), pp. 403, (Russian translation 1989).
17. 1988: The origin of the Tarnobrzeg native sulphur deposit in the light of petrographic studies. *Biul. PIG* 359, 7—19.
18. 1991: On the diffusion rings and spherical weathering of carbonatites from Gobi (Mongolia). *Miner. Polon.* 22, 1, 41—50.
19. 1991: Mineralogy of the carbonatite/syenite contact zone in the Hoggar Massif (Algeria). *Biul. Pol. Acad. Sci.* 39, 3, 277—286.
20. 1992: Pseudoleucite carbonatite from Mongolian Gobi Desert. *Arch. Miner.* 42, 2, 3—16.
21. 1992: Geology of the Tajno massif carbonatites (editor). *Prace PIG* 139, 43—77.
22. 1994: Geology of the Elk syenite massif (editor). *Prace PIG* 144.

## NEW HONORARY MEMBERS OF THE MINERALOGICAL SOCIETY OF POLAND

### LESZEK STOCH

On December 8, 1994 Mineralogical Society of Poland conferred its honorary membership to Professor Dr. Leszek Stoch appreciating his merits in developing mineralogical sciences. The diploma was delivered on November 23, 1995, and then L. Stoch presented a lecture 'X-ray study of amorphous substances'.



Professor Stoch was born on June 6, 1931 in Bobowa near Nowy Sącz. In 1949 he completed a secondary school in Cracow and in 1955 graduated as a chemist-ceramist from the Academy of Mining and Metallurgy, having been since 1951 employed as an assistant at the Faculty of Ceramics and later — at the Faculty of Prospecting Geology. His interests in mineralogical sciences and studies of mineral raw materials were developed by professors A. Bolewski and M. Budkiewicz. In 1960 L. Stoch earned a PhD degree in technical sciences and in 1966 he presented his habilitation dissertation, then in 1976 he was nominated extraordinary professor and in 1985 — the ordinary one. In 1971—1980 he acted as vicedirector of the Institute of Geology and Mineral Deposits of the Academy of Mining and Metallurgy and in 1981—1984 as vicedirector of the Institute of Building Materials and Refractories of this school. Since 1980 Professor Stoch has been the head of Department of Glass and Enamel of the Faculty of Material Science and Ceramics. In 1984—1990 he was the dean of this Faculty.

The range of Professor Stoch's scientific interests is very wide. At the beginning he was involved in the problems of mineralogy and origin of clays, supplemented later by those of complex utilization of ceramic raw materials. He was also working on mineralogical and physico-chemical principles of technology of mineral raw materials. He was the first to introduce in Poland systematic mineralogical investigations of ceramic substances. In the 50-th Professor Stoch introduced



differential thermal analysis into general research practice in Poland, publishing fundamental data on this subject. Recently, he initiated a new branch called *structural thermochemistry*, paying attention to specific reactions of decomposition of solids proceeding within their structure as well as to reaction of reconstitution of structures related to redistribution of chemical components (*internal reactions of solids*). Moreover, he proposed a *sealed box model* to explain specific character of reaction of internal thermal dissociation and the cases of its explosive course. His conception of structure of technical glasses showing complex chemical composition and structure (*mixed network glasses*) is also original. In this model one finds criteria of their formation and a model of a flexible network. Besides, he introduced a new concept of mechanism of crystallization of such glasses, taking into account diffusionless processes and explaining their multi-stage course.

Professor Stoch contributed significantly to scientific principles of technology of mineral raw materials, particularly those concerning the production of petrographic materials from Lower Silesian basalts, and of bleaching earths from Polish raw materials. Worth emphasizing are his achievements relating to the production of silica glass from domestic vein quartz as well as of local feldspar raw materials for glass industry. His numerous publications show proecologic aspects. This refers to utilization of industrial wastes (slags, fly ash) as substitutes of mineral raw materials in the production of glasses and ceramic materials.

The best known scientific achievements of Professor Stoch — who is the author of about 200 publications — are the results of his studies on mineralogy, origin and technological properties of kaolins and other clay rocks in Poland, including specific weathering crusts of Lower Silesian basalts. His papers on ordering of structure of kaolinite group-minerals and on mechanism of weathering and kaolinization of micas, are cited in world literature. The monograph *Clay Minerals* (1974) is highly appreciated abroad and was the main reason of distinguishing him with highly prestigious Emanuel Božicki medal by Charles University in Prague.

Scientific and didactic activity of Professor Stoch resulted in the formation at the Academy of Mining and Metallurgy of an important research centre on mineralogy and technical properties of ceramic and glass raw materials and glass technology, well known in Poland and abroad.

Professor Stoch is deeply involved in organization of scientific life in Poland and international cooperation. He is a charter member of the Mineralogical Society of Poland and organizer of its Section of Clay Minerals, lead by him in the years 1973—1992. In the period 1981—1996 he was the chairman of the Commission on Ceramic Sciences of the Cracow Branch of the Polish Academy of Sciences and was active in its Commission on Mineralogical Sciences. Professor Stoch contributed significantly to the formation in 1986 of the Polish Society of Calorimetry and Thermal Analysis, being its president (1991—1994) and — several times — vicepresident. In 1988 the Polish Ceramic Society was founded by him and introduced into European Ceramic Society. He was the president of the former and councillor of the latter, as well as of International Confederation for

Thermal Analysis and Calorimetry (since 1992). In 1993 he was elected a councillor of the European Society of Glass Science and Technology and a member of editorial board of the *Journal of Thermal Analysis*.

Professor Stoch is an outstanding ceramic mineralogist whose activity, achievements and high moral standard are highly appreciated in Poland and abroad. Consequently, in 1995 he was elected correspondent-member of the Polish Academy of Arts and Sciences. Because of open-hearted nature, he is always ready — no matter of numerous duties and obligations — to inspiring discussions and fruitful exchange of opinions.

Piotr WYSZOMIRSKI

#### WITOLD ŻABIŃSKI

In December 1994 the Mineralogical Society of Poland conferred the title of honorary member to Professor Dr. Witold Żabiński, in recognition of his distinguished scientific achievements in the field of mineralogy and his successful activity contributing to integration of mineralogists within our country and with international mineralogical community. Delivery of the diploma took place on November 23, 1995, after which W. Żabiński presented a lecture 'Wilhelm Conrad Roentgen — his life and work'.

Witold Żabiński was born on July 17, 1929 in Cracow. He studied chemistry and geology at the Faculty of Natural Sciences of the Jagellonian University in Cracow. After obtaining the title of M.Sc. in Geology (1951) he was employed at the Department of Mineralogy and Petrography of the Academy of Mining and Metallurgy in Cracow, where he has continued his scientific and academic career, achieving the top academic position of Ordinary Professor in 1981.



In 1959 he presented his Ph.D. Thesis on 'Mineralogy and geochemistry of the oxidation zone of the Silesian-Cracovian Zn and Pb ores deposits'. He was particularly interested in Zn-bearing carbonate minerals contributing to more detailed characteristics of Zn-dolomite, monheimite (Fe-smithsonite) and

hydrozincite. He fulfilled also pioneer studies on trace elements migration in the oxidation zone of these deposits. During the following years he was studying in detail the minerals of the hydrogarnet group. The resulting monograph 'Hydrogarnets' was the basis of his habilitation in 1965, and has been still an important basis of data on these minerals, cited in numerous papers. The scientific scholarship in Oxford in 1966, under supervision of Prof. J. Zussman, significantly influenced further mineralogical activity of Witold Żabiński. In the next years he was involved in the studies of smectites and zeolites. More recently, important results have been obtained by him on the different varieties of vesuvianite and their thermal decomposition products.

From among his over 140 papers numerous were published in foreign scientific journals as Mineralogical Magazine, Europ. J. Miner., N. Jb. f. Mineralogie. Prof. W. Żabiński presented the results of his researches also at several Polish and international conferences, e.g. at the IMA Congresses, and as a visiting lecturer at several European universities.

An important handbook on mineralogy: 'General mineralogy' (in Polish) was published by A. Bolewski, J. Kubisz and W. Żabiński in 1975 (third edition 1990). In 1979 A. Bolewski and W. Żabiński edited a monograph 'Methods of study of minerals and rocks' (in Polish). Second edition appeared in 1988 and its usefulness calls for the third edition.

For many years Witold Żabiński has been in service of the mineralogical community in Poland. He was among the organizers of the Mineralogical Society of Poland and led it as its president in the years 1980—1994. Witold Żabiński has been the Editor-in-Chief of the Mineralogia Polonica — the Journal of the Mineralogical Society of Poland — since its very first volume in 1970. For eight years (1982—1990) he was the President of the Committee on Mineralogical Sciences of the Polish Academy of Sciences. Since 1967 he has been an associate member of the Mineralogical Society of Great Britain. In 1993 Prof. Żabiński has been elected correspondent-member of the Polish Academy of Arts and Sciences in Cracow.

Prof. Witold Żabiński's merits in scientific, academic and social activity within the Polish mineralogical community are highly appreciated by mineralogists in Poland and abroad.

*Andrzej WIEWIÓRA*