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Seventy years of the Faculty of Geology at the University of Warsaw

In 2022 we celebrate the 70th anniversary of the Faculty of Geology at the University of Warsaw.

Although the Faculty came into being as an independent University unit in 1952, geological sciences and teaching of geology at the University of Warsaw have a long, over 200-year history. It began with the foundation of the Mineral Cabinet (The Department of Mineralogy) in 1816, that is with the beginnings of the University of Warsaw itself. The long tradition of geological studies at the University of Warsaw covers all branches of geology: from stratigraphy and palaeontology, through sedimentology and climate geology, mineralogy, petrology, geochemistry and ore geology, to hydrogeology, engineering geology and environmental geology. The faculty boasts important achievements in each of these branches, but also in interdisciplinary research. Various advanced techniques are applied in the research performed at the Faculty of Geology, supported by modern research ideas based on the experience of the Faculty staff and tradition.

The articles presented in this issue of *Acta Geologica Polonica* display only a small fragment of the Faculty research activities, however in a wide range of topics in both basic and applied geology.

The paper by Jan **Dzierżek** *et al*. summarizes the results of research on the accumulation conditions of the Upper Younger Loess during the Last Glacial Maximum in Central and Eastern Europe. The studies of loess deposits carried out in Poland and Ukraine, including topography of the loess cover, its grain size and mineral composition, as well as mollusks and pollen, revealed that its accumulation might have been more dependent on the prevailing moisture conditions that previously thought.

The contribution by Michał **Loba** and Urszula **Radwańska** presents new data on Upper Jurassic brittle stars from southern and north-western Poland. This palaeontological report describes a diverse shallow-water ophiuroid assemblage and establishes a new taxon that commemorates the late Professor Andrzej Radwański (1934–2016), i.e., *Ophiobartia radwanskii* Loba gen. et sp. nov.

Ray **Macdonald** and Bogusław **Bagiński** present a summary of the contributions of the Department of Geochemistry, Mineralogy and Petrology to the study of the chevkinite-group minerals. The range of research topics includes: geochemical and mineralogical studies of natural occurrences of the group from various settings, attempts to relate their chemical composition to host lithology, and analysis of hydrothermal alternations with the aim of understanding element redistribution and the potential implications for ore formation.

Recently formed arsenates and the conditions of their formation are described in the paper by Rafał **Siuda** and Anna **Januszewska**. The group contains several characteristic assemblages, the crystallization of which took place under weak acidic to neutral conditions.

Andrzej **Kozłowski** and Witold **Matyszczak** present a thorough description of twenty silver minerals found in pegmatites and quartz veins from the Variscan Karkonosze pluton in Poland, some of which have never been described before from that area. Based on inclusion studies, the analysed minerals are considered to have crystallized from epithermal fluids.

The paper by Stanisław **Speczik** *et al*. deals with the new Northern Copper Belt of south-western Poland. A description of three new deposits is provided along with characteristics of the areas of their possible extension. The new deposits are compared to other Polish Cu-Ag ore deposits, with an emphasis on differences in their geological structure and mineralogy.

Dariusz **Dobrzyński** *et al.* present results of their studies on geochemical relationships in CO_2-rich therapeutic waters of the Sudetes (Poland). Statistical analysis of a vast set of geophysical data obtained using a wide range of analytical methods revealed distinct differences in the composition of waters found in crystalline and sedimentary rocks.

Important aspects of long-term groundwater changes in an urban area are dealt with in the contribution by Ewa **Krogulec** *et al.* based on thorough research performed on three aquifer horizons in the capital city

of Warsaw. The database used for the conclusions of this paper includes a 30-year-long monitoring series and historical accounts of springs from Warsaw.

Piotr **Zawrzykraj** *et al.* in their contribution discuss the causes of structural strengthening of fluvial sands from the Praski terrace in Warsaw, caused by the activity of a contemporary batching plant. They identify the mineral etrignite – hydrated calcium aluminosulphate, as the material responsible for the observed structural anomalies.

The paper by Paweł **Dobak** *et al.* discusses the influence of contamination by petroleum products on the engineering behaviour of soils, based on the most common Polish soils, i.e. Neogene clays and glacial tills. As evidenced by these studies, even small quantities of oil-derived products have impact on the soil properties, which makes the paper an important contribution to modern engineering geology.

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