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30 YEARS OF THE FACULTY OF EARTH SCIENCES AND
THE DEPARTMENT GEOCHEMISTRY, MINERALOGY & PETROLOGY
AT THE UNIVERSITY OF SILESIA



Faculty of Earth Sciences,
University of Silesia. Photo M. Plichta.

The Faculty of Earth Sciences of the University of Silesia was founded in the academic year 1973/74 as the next science faculty in order to study ambitions and economic requirements of the Upper Silesia and surrounding areas. The first group of geography students was admitted in the academic year of 1974/75. The Faculty began its work under very difficult conditions. In the beginning the Faculty was located in the old Mining School in Sosnowiec at Szkolna Street. In the 1975/76 academic year a group of geography students started to study at the 2nd year of geology and at the same time the initial examination in geology was carried out. At that time at the faculty of Earth Sciences, two branches were established: geography and geology. According to the decision of

Ministry of Higher Education at the geology branch two specialisations were formed: stratigraphy-prospecting geology and geochemistry-mineralogy.

The first Dean of the Faculty was doc. dr Marian Marczak. Thanks to his efforts a new academic staff from the other geological academic centres and Geological Institute was employed at the University of Silesia. Doc. Marczak was very effective in searching for a new location for the growing Faculty. In 1975 the Faculty obtained a location in the so-called „Lipsk” building near Partyzantów

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Street in Sosnowiec. Previously a part of the Faculty was located in the building of Biology Faculty in Katowice. Beginning in the academic year 1975/76 prof. dr hab. inż. Aleksander Jachowicz was elected as the Dean of the Faculty of Earth Sciences. He moved here from the Upper Silesian Branch of the Geological Institute. Prof. Jachowicz was the Dean of the Faculty until the 1980/81 academic year.

In 1975 the geology specialisation was located in the building at the Partyzantów Street while geography remained in the building at Szkolna Street. At the very beginning the Faculty had serious problems with staff and laboratory equipment shortages. In the building at Partyzantów Street the temporary chemical, microscopical and infrared spectrometry laboratories were organized. It should be mentioned here, that the time of Faculty organization took place during the Gierek-crisis period. For some of the lectures and practical courses students commuted to Cracov (AGH). Since 1975 a rapid increase in the number of the Faculty staff has taken place due to admission of the staff from other geological centres. At this time mineralogical sciences at the Faculty were represented by: doc. dr hab. K. Kozłowski, prof. dr hab. W. Żabiński, prof. dr hab. M. Banaś, prof. dr hab. J. Burhart, dr hab. A. Wiewióra, Prof. A. Gawęł. Three assistant professors dr J. Ryszka, dr Ł. Karwowski, and dr K. Malik were also employed.

Since 1976 the Faculty has been divided into the Institute of Geology and the Institute of Geography. In the Institute of Geology three Departments connected with mineralogy were formed:

1. Department of Geochemistry (doc. dr M. Marczak as the head with the assistant professors: dr A. John, dr Ł. Karwowski, mgr J. Biedroń, mgr E. Ziaja, mgr M. Koralewska, mgr A. Matuszewska, mgr W. Krawczyk, mgr B. Szymeczko, mgr R. Włodyka and technical staff: mgr J. Molenda, M. Zygmunt, M. Hajducka).
2. Department of Mineralogy: head: Prof. dr hab. W. Żabiński, professor: doc. dr hab. M. Banaś; assistant professor: dr J. Ryszka, mgr G. Cichoń (Bzowska), mgr M. Czaja, mgr D. Chowaniec and technical staff: J. Marzec.
3. Department of Petrography (Petrology): head: Doc. Dr hab. K. Kozłowski, assistant professors: mgr W. Łapot, mgr Z. Rebizant, dr K. Malik.

Later on these Departments were enlarged by new staff employment: mgr P. Szkaradek, mgr J. Nowińska, mgr J. Juraszek, mgr L. Drobek, mgr A. Idziak, mgr J. Idziak, Z. Chrzanowska, A. Prętnicka, D. Zając, H. Zielińska.

Some lectures were also carried out by prof. dr hab. inż. L. Stoch and prof. dr hab. W. Narębski.

At the time of the Faculty of Earth Sciences foundation the administration decided to build a new seat for the Faculty. The new complex was composed of the laboratory building (the first built) and next: the administrative and didactic buildings. In the first stage (1977) the laboratory building was finished for the Institute of Geology and Department of Karst Geomorphology. That building was equipped with spacious laboratories. Microscopic, chemical, spectral analysis, atomic absorption, as well as infrared, ultraviolet and visible-light spectroscopy

laboratories were set up. In 1982 the administrative and didactic building (so called the sky-scraper) was finished for the academic use and the Faculty has been consolidated into one building-complex. For some years the investment has remained unfinished. The first architectural plans were rejected and even during the last years (in two stages) the didactic building was finished and it is now used for teaching purposes (2003).

At the beginning the Faculty had no rights to promote PhD students. The faculty staff obtained the academic degrees at other universities – mainly at the University of Mining and Metallurgy, Warsaw University, University of Wrocław and at the other Faculties of the University of Silesia. In the field of mineralogical sciences PhD promotions were given to: G. Cichoń (Bzowska), W. Łapot, M. Czaja, J. Biedroń, E. Ziąja, A. Matuszewska, M. Koralewska, R. Włodyka. In 1983 the mineralogical staff was enlarged by dr J. Janeczek employment. Both Ł. Karwowski and J. Janeczek obtained their habilitations outside the University of Silesia because of the lack of the rights to promote for habilitation at the Faculty of Earth Sciences.

The first MSc students of Geochemistry, Mineralogy and Petrology defended their MSc thesis in June 1979. At that time the distinct growth in the importance of Geochemistry-Mineralogy-Petrology occurred. MSc students in Geochemistry-Mineralogy-Petrology specialisation were also employed at the Faculty. The Analytical Centre for Rocks and Minerals was also formed as the part of the Institute of Geology, and was directed by dr S. Cebulak, who moved from Upper Silesian Branch of Geological Institute. The Analytical Centre carried out many research projects and practical applications for industry and for governmental departments. The MSc students were employed in the Upper Silesian Branch of the Geological Institute, Mining Institute, Refractory Materials Institute. Some of them were employed in the coal, lead and zinc mining industries. Some MSc students also left the country at that time and were employed in the Republic of South Africa.

By the end of September 2004 the specialization of Geochemistry, Mineralogy and Petrology had been completed by 238 students.

In 1991 Faculty of Earth Sciences obtained the rights to promote PhD students. Since that time, in the field of mineralogical sciences the PhD title has been obtained by the following persons:

Aleksandra Gawęda: Mineralogy of the pegmatites from the Western Tatra Mts.

Conferring professor: Kazimierz Kozłowski

Henryk Parzenty: The influence of the in-organic substance on the some trace elements content in coals of the eastern part of the Upper Silesia Coal Basin.

Conferring professor: Kazimierz Kozłowski

Lucyna Lewińska-Preiss: Organic substance as a carrier of trace elements in coals from the eastern part of the Upper Silesian Coal Basin. Conferring professor: Wiesław Gabzdyl

Eugeniusz Gałuskin: Inhomogeneities of minerals as a source of informations about their origin. Conferring professor: Łukasz Karwowski

- Norbert Cieśliński: Granitoids of the Upper Kościeliska Valley – eastern part.
Conferring professor: Kazimierz Kozłowski
- Jolanta Burda: Migmatites from the upper part of the Kościeliska Valley in the Western Tatra Mts. Conferring professor: Kazimierz Kozłowski
- Leszek Marynowski: Thermal transformation degree of organic matter from the Devonian rocks of the Holly Cross Mountains. Analysis of biomarkers by GC-MS method. Conferring professor: Łukasz Karwowski,
- Małgorzata Labus: Analysis of influence of natural conditions and anthropopression for the types of weathering of stone elements in Upper Silesian monuments. Conferring professor: Łukasz Karwowski
- Irina Gałuskina: Crystal-chemistry and crystal-morphology of minerals from achtarandite rocks – as a reflection of the multistage formation of the Wiluj deposit. Conferring professor: Janusz Janeczek
- Danuta Smółka: Geochemical-mineralogical investigations of the flow-ashes from the selected power-stations. Conferring professor: Łukasz Karwowski
- Andrzej Obmiński: Analysis of soil contamination by asbestos in the areas of strong anthropopression. Conferring professor: Janusz Janeczek
- Magdalena Misz: Organic matter in slags and flow-ashes formed by coal combustion processes in "Będzin" S.A. power-station. Conferring professor: Krystyna Kruszewska
- Mariola Jabłońska: Phase composition of the atmospheric dust from the selected towns of the Upper Silesian Industrial Area. Conferring professor: Janusz Janeczek
- Maria Racka: Geochemical aspects of extinction at the Frasnian/Famenian border on the example of South Poland shelf. Conferring professor: Łukasz Karwowski
- Justyna Ciesielczuk: Hydrothermal alteration of granites from Borów (Strzegom-Sobótka massif) and Strzelin. Conferring professor: Janusz Janeczek
- Urszula Skreć: Origin and maturity of the organic substance in the Lower Paleozoic rocks of the PeriBaltic Syneclize. Conferring professor: Karwowski Łukasz
- Tomasz Pindel: Sources of the natural radioactivity in the selected USCB coal mines. Conferring professor: Janusz Janeczek
- Artur Deditius: Late Variscan mylonites in the crystalline rocks of the Western Tatra Mts. Promotor: Janusz Janeczek

In the academic year 1983/84 the structure of the Faculty was changed to a large extent. In the place of Institutes new Departments were organised. Mineralogical Sciences was included in Department of Geochemistry, Mineralogy and Petrology. The first leader and head of the Department was much missed. Prof. dr hab. Kazimierz Kozłowski (died suddenly 31.01.2000).

The present staff of the Department of Geochemistry, Mineralogy and Petrology comprises as follows:

the Head of the Department: Prof. dr hab. Janusz Janeczek

Petrology Chair:

Head: prof. dr hab. Krystyna Kruszewska; assistant professors: dr A. Gawęda, dr M. Misz, D. Smółka-Danielowska, dr H. Parzętny; teaching staff: W. Łapot, dr R. Włodyka; technical staff – dr A. Deditius, PhD student – mgr I. Jelonek.

Mineralogy Chair:

Head: Prof. dr hab. Janusz Janeczek; assistant professors: dr hab. M. Czaja, dr I. Gałuskin, dr E. Gałuskin, dr M. Jabłońska, X-ray diffraction laboratory – dr G. Bzowska (head), technical staff: Mgr E. Teper, Mgr M. Pięta, PhD students – mgr E. Szełęg, mgr T. Noszczyk, mgr B. Śmieja – Król.

Geochemistry Chair:

Head: Prof. UŚ. Dr hab. Łukasz Karwowski; assistant professors: dr M. Fabiańska, dr A. Matuszewska, dr L. Lewińska-Preis, dr L. Marynowski, dr U. Skręt, dr M. Racka; teaching staff: dr J. Biedroń; technical staff – mgr inż. E. Jainta, M. Głowacka.

In the beginning of the Faculty the research programs carried out in the field of mineralogical sciences concentrated on topics related to the local problems. The main topics chiefly concerned environmental protection: the influence of industry on air, soil and water quality. The close co-operation with the Institute of Environmental Engineering of Polish Academy of Sciences and the Metallurgical Industry “Katowice” was also established. The detailed investigations of phase composition and geochemistry of coal wastes were carried out to prepare them for recultivations. Coal petrology and coal geochemistry has been widely developed, both concerning organic (dr A. John team) and inorganic coal components (doc. dr M. Marczak team). Prof. dr hab. K. Kruszewska started to develop the coal petrology and investigations of the combustion products.

The petrological investigations were carried out in many areas of Poland: in Lower and Upper Silesia, in the Carpathians, especially in the crystalline part of the Tatra Mts. (started and carried out for many years by a team led by prof. K. Kozłowski), the border portion of the Upper Silesian Coal Basin and in the Holy Cross Mts. Recently the investigations of meteorites has also started.

For several years the investigations, carried out by the Department of Geochemistry, Mineralogy and Petrology, have been divided into four groups, under the general titles:

- Investigations of minerals and rocks in selected areas of Poland.
- Investigations in environmental mineralogy.
- Petrological investigations of organic matter.
- The origin, potential precursors, transformation degree and development of organic-inorganic bounds as a result of their interactions and the influence of environmental conditions.

The staff of the Department received several State Scientific Committee (KBN) grants during the last several years and successfully finished them.

At present the Department of Geochemistry, Mineralogy and Petrology has the possibility to carry out a wide spectrum of mineralogical, petrological and

geochemical investigations and experiments. Investigations and analyses can be carried out in the following laboratories:

- Laboratory of Scanning Microscopy: a Philips XL30 ESEM scanning microscope with the analytical applicator EDS; a JEOL JSM 35C scanning microscope with WDS
- Laboratory of X-ray diffraction: a X'Pert Philips PW 3710 diffractometer with graphitic monochromator
- Laboratory of Photoluminescence: a FLUOROLOG 3 -12 fluorimeter of Jobin Yvon Spex
- Laboratory of Atomic Absorption Spectroscopy: a SOLAAR atomic absorption spectrometer
- Laboratory of Chromatography: a FISON gas chromatograph with flame ion detector and an Agilent Technology GC -MS
- Laboratory of Gemmology