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## German Mineralogical Society



This year the German Mineralogical Society will celebrate its 100<sup>th</sup> anniversary. The history of the society has had its ups and downs, and we are very glad that our members continue to collaborate and communicate with geoscientists around the world, involving themselves in innovative studies, education, and industrial applications of the mineralogical sciences.

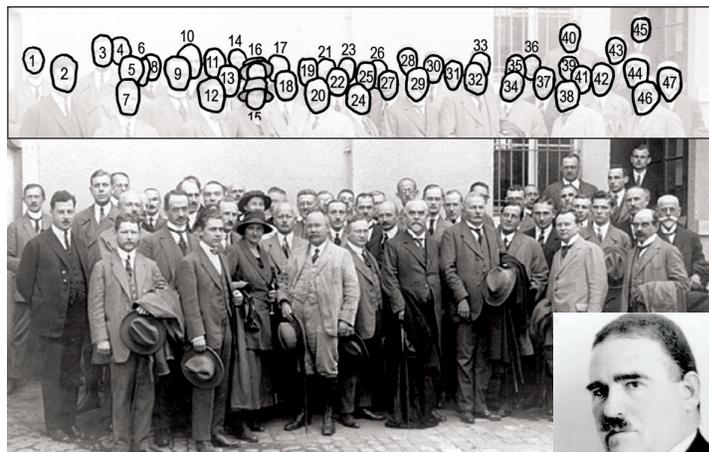
Karl Hans Wedepohl, Göttingen, has put together a remarkable overview covering these 100 years of DMG history. We hope you will enjoy it, and we look forward to seeing you in September in Berlin at our annual as well as anniversary DMG conference.

**Ulrich Bismayer**  
DMG president

### THE CENTENNIAL OF THE GERMAN MINERALOGICAL SOCIETY (DMG) IN 2008

In the 19<sup>th</sup> century, education in science was promoted by a joint organization of societies of natural scientists and medical scientists. A committee of this organization in Germany specializing in mineralogy, geology, and paleontology suggested at its annual meeting in Cologne that a special society be formed to promote research in mineralogy. Thus, the DMG was founded by 38 charter members on September 22, 1908, in Cologne. They selected their colleague Max Bauer, a specialist in precious minerals, as the first chairman. He was subsequently succeeded by Friedrich Becke. Before World War I, not more than 30 to 50 participants out of a total of about 250 members attended the annual meetings in Salzburg, Königsberg, Heidelberg, Muenster, and Vienna. The first volume of the official periodical *Fortschritte der Mineralogie, Kristallographie und Petrographie* appeared in 1911. Volume 4, published in 1914, contained several important contributions. Max von Laue reported on the diffraction of X-rays by crystal lattices two years after his discovery. Arthur Day, the first director of the Geophysical Laboratory in Washington, described in the same volume the experimental results of Norman Bowen on the melting behavior of mixtures in the albite-anorthite system.

During the 1920s, membership in the DMG increased to about 500, and the annual meetings wound their way through Germany and its universities. Field trips during the meetings were popular, because they provided information on the local geology and on important occurrences of certain minerals and rocks. Figure 1 shows participants in the 1924 annual meeting visiting the Leitz Company, the producer of polarizing microscopes in Wetzlar. The party included several well-known mineralogists, such as Brauns, Heide, Niggli, Ramdohr, Schneiderhöhn and Tröger. The 1920s were characterized by an increasing application of X-ray diffraction in the determination of the atomic structures of minerals and in the identification of fine-grained minerals in sedimentary rocks. Several members of the DMG made important discoveries. In 1928 Felix Machatschki grouped silicate structures according to the linkage of Si-O tetrahedra. In 1929 Victor Moritz Goldschmidt moved from Oslo (Norway) to Göttingen (Germany). He established rules about the preference of atomic species for certain mineral structures according to the



**Figure 1:** Participants in the tenth annual meeting of the German Mineralogical Society visiting the Leitz Company at Wetzlar on September 18, 1924. Numbers refer to: H. Schumann (1), H. von Philipsborn (4), O. Weigel (8), E. Lehmann (10), F. Heide (14), E. Tröger (17), H. Schneiderhöhn (19), P. Ramdohr (28), F. Rinne (29), R. Brauns (32), P. Niggli (34), H. Steinmetz (36), and K. Spangenberg (38).



**Figure 2:** Victor Moritz Goldschmidt (1888-1947)

size of ions (or atoms) and according to the nature of their bonding. Goldschmidt (Fig. 2) tested these rules by considering the abundance of rare elements in terrestrial and cosmic rocks. With these and other discoveries, Goldschmidt became the founder of modern geochemistry.

In the 1930s, serious financial problems resulted in a decrease in scientific output, as can be seen from the smaller volumes of the periodical *Fortschritte*. During World War II, several institute buildings and libraries were destroyed. After the war, German science had to become creative once again and had to build up its international relations. The German Mineralogical Society was reorganized in 1949 at Freiburg. This was a remarkable new start, which resulted in a steady increase of the membership to a maximum of 1700 towards the end of the century. In this period the number of participants in the annual meetings increased to an average of 300, with a parallel increase in oral contributions at every meeting.

In the post-war period, experimental petrology grew at a remarkable rate and successfully explained the origin of granitic magmas and the conditions for the formation of metamorphic rocks. The concept of partial melting began to explain the origin of basaltic magmas in the Earth's mantle and of granitic magmas in the continental crust. Laboratories for the study of isotope geochemistry and geochronology were set up in German mineralogical institutions. The concept of plate tectonics invigorated numerous investigations in Earth sciences. Progress was related to the growing international exchange of ideas and scientists. In 1957 the DMG joined the International Mineralogical Association. The splitting of scientific societies between West and East Germany retarded scientific development until 1990.

In 1950, 1961 and 1967, the DMG formed its Section on Crystallography, Section on Geochemistry, and Committee on Technical Mineralogy to reflect the growing specialization of scientists and methods. A group of members interested in archaeometry was formed in 1975. The annual meetings of the Society followed these trends, as shown by the subject matter of contributions and by the titles of special sessions. At meetings in the 1990s, 50% of the papers dealt in almost equal proportions with problems of petrology and geochemistry. Mineralogy and crystallography shared about 25% of the papers. The rest were on ore deposits, materials science, and the environment.

In 1988 several European mineralogical societies, including DMG, decided to replace their national periodicals by the *European Journal of Mineralogy*. By tradition, there was a relatively large group of Earth scientists in Germany claiming to be mineralogists. Today more and more university institutes of mineralogy in Germany are joining with geological institutes to form departments of geoscience.

**Karl Hans Wedepohl**