

ABRAHAM GOTTLÖB WERNER MEDAL TO THOMAS OBERTHÜR



The Abraham Gottlob Werner Medal of the German Mineralogical Society is presented in recognition of outstanding scientific merits. The 2023 medal is granted to Thomas Oberthür.

Thomas Oberthür studied geology and mineralogy at the University of Cologne, graduating with a degree in mineralogy (1978). He then worked as a "Research Officer" at the Chamber of Mines of South Africa until 1982. Mineralogical, geochemical, and genetic aspects of the Witwatersrand gold mineralization were the basis of his doctoral thesis at the University of Cologne (1983).

Thomas Oberthür joined the Federal Institute for Geosciences and Natural Resources (BGR) in Hanover in 1988, where he headed the department "Ore Deposits and Proof of Origin of Mineral Commodities" until his retirement in 2014. Metallogenetic and geochemical-mineralogical investigations of gold deposits in Africa (Ghana, Burkina Faso, Tanzania, Zimbabwe, Morocco) were a focus of his early work. A number of well-cited publications demonstrate the outstanding level of his research in the gold sector.

From 1995, comprehensive research work on the mineralogy and geochemistry of platinum group elements (PGEs) became a core topic of his scientific interest. His work included further methodological developments of highly spatially resolved analytics and their application to genetic problems of primary PGE deposits in southern Africa (Zimbabwe, South Africa). A further focus was the comprehensive characterization of oxidized PGE ores also in view of processing routes. His work was complemented by investigations of the platinum-group mineral spectrum of placers (Zimbabwe, South Africa, Philippines, Rhine River in Germany). His scientific work was application-oriented and meaningful for the mining industry. Thomas Oberthür was honoured for his many productive research years in the field of PGE deposits by naming of a mineral "Oberthürite" $[\text{Rh}_3(\text{Ni,Fe})_{32}\text{S}_{32}]$ (IMA 2017-072).

Thomas Oberthür's scientific interest went far beyond gold and platinum deposits. Worth mentioning is his initiation of and collaboration on a wide range of deposit-related research topics at the BGR, such as his key impulses in the development of the scientifically and politically important "Analytical fingerprint for niobium-tantalum minerals (coltan) as part of a certification system."

The geochemical and mineralogical investigation of high-tech metals, such as indium, germanium and antimony, was another research focus. His experience in noble metal-related research in Africa stimulated the introduction of methods of automated mineralogy at the BGR. He valued classic reflected-light microscopy, which he combined with high-precision microanalysis (electron beam microprobe, laser ablation-ICPMS, secondary ion mass spectrometry (SIMS)). He supervised many domestic and foreign students and interns, especially from Africa, many of whom are now in leading positions in the fields of ore deposit research and raw materials management worldwide.

Thomas Oberthür was also active in the DMG, e.g., by leading the working group "Ore Deposit Research" for several years until his retirement in 2014. He helped to shape a whole generation of ore deposit researchers through tireless field work, especially in southern Africa, his extensive specialist knowledge, his large network, which includes industry and research groups, and last but not least, the cooperation with guest scientists from all over the world.

Thomas Oberthür published more than 80 peer-reviewed articles in international journals and books, which are listed in Scopus with more than 2600 citations. His outstanding research makes him a world-renowned ore deposit researcher and specialist in the field of the mineralogy and geochemistry of deposit-forming processes, especially of gold and platinum-group metals.

The Abraham Gottlob Werner Medal is awarded to an outstanding geoscientist who has widened our knowledge on ore deposits, especially of noble and technology metals, and who always passed on his knowledge and know-how to students, colleagues, and society with great enthusiasm.

Torsten Graupner (Hannover), **Peter Buchholz** (Berlin), **Horst Marschall** (Frankfurt/Main)

AGRICOLA MEDAL TO CLAUDIA WEIDENTHALER



The German Mineralogical Society (DMG) awards the Georg Agricola Medal in 2023 to Prof. Dr. Claudia Weidenthaler for her outstanding achievements in the field of applied mineralogy.

Claudia Weidenthaler was born in Nittenau (Germany) in 1965; studied geology, mineralogy, and crystallography at Würzburg University; and obtained her PhD at Mainz University. After years at the universities in Bremen and Frankfurt, she has been working at the Max Planck Institute for Coal Research since 1999 and achieved her habilitation in 2015 from the University Duisburg-Essen. Claudia Weidenthaler receives this prize for her outstanding work on the structure-property relationship of functional energy materials by in-situ/operando diffraction and spectroscopic methods.

The research activities of Claudia Weidenthaler are focused on crystallographic characterization of inorganic functional solids. These are used either as catalysts in chemical reactions or for energy storage and conversion. Structure-property relationships are investigated at different length scales, from averaged crystal structure to the local structure of amorphous and disordered compounds. For example, Claudia Weidenthaler has contributed significantly to the understanding of structure-property relationships of complex aluminium hydrides using in-situ diffraction of solid-state hydrogen storage. In-situ investigations of different catalysts for a sustainable separation of water into oxygen and hydrogen in fuel cells are another of her research fields associated with energy materials. For example, inorganic oxide catalysts are structurally analyzed from nucleation at the atomic scale to crystallization of the nanomaterial. Using tailored sample environments, she succeeded in directly investigating structural transformations of inorganic solids during the grinding process in ball mills. The unconventional mechano-synthesis (e.g., of spinels or perovskites) with simultaneous X-ray diffraction using synchrotron radiation gives detailed insights into the mechanisms of solid-state synthesis, its kinetics, and structural and microstructural changes. The development and implementation of innovative, tailored sample environments for in-situ experiments under reaction conditions are a central topic of her research.

Claudia Weidenthaler successfully contributed with her crystallographic and material scientific expertise to many interdisciplinary projects in the last three decades. She has published more than 150 international peer-reviewed journal articles and has contributed as author or co-author to several monographies.

The DMG awards the Agricola Medal to Prof. Dr. Claudia Weidenthaler, a mineralogist whose work has contributed significantly to the development of materials for the energy transition, from the fundamental scientific importance to highlighting the relevance of applied mineralogy for a sustainable transformation of industry and society.

Daniel Vollprecht (Augsburg)

DORIS SCHACHNER MEDAL TO ROLAND STALDER



The promotion of mineralogical sciences is a matter of the heart for Roland Stalder to which he has been tirelessly committed for decades. He is active in public relations and provides students and schoolchildren access to scientific and mineralogical topics from an early age onward. To achieve this, he developed new ideas, again and again, and brought them to success with great determination. Their implementation was costly,

but he was able to win sponsors from different corners with great success.

Roland Stalder studied mineralogy in Göttingen from 1989 to 1994, financed by a scholarship from the German Merit Foundation between 1992 and 1994. He completed his studies with a diploma thesis in which he carried out experimental investigations on the subject of “non-stoichiometric spinels.” For his dissertation, Roland Stalder moved to the Max Planck Institute for Chemistry in Mainz (1994–1996) and to the Institute of Mineralogy at the Goethe University in Frankfurt (1996–1997). There, he was supervised by S. Foley and G. Brey for his dissertation “Experimental trace element distribution between solid and fluid phases under conditions of the upper mantle.” He deepened this research topic in his further scientific career by dealing primarily with the incorporation of water and chlorine in nominally anhydrous minerals of the Earth’s upper mantle and their effect on the physical properties. After completing his doctorate, Roland Stalder held post-doctoral positions at the Institute of Mineralogy and Petrography at ETH Zürich (1997–2000) and at the Mineralogical Department of the Natural History Museum in Stockholm (2001–2002), after which he spent six years as a junior professor in experimental petrology at the Faculty of Geosciences in Göttingen. In 2008, Roland Stalder was appointed as Chair of Mineralogy and Petrology at the University of Innsbruck, which he still holds today.

Roland Stalder is an associate editor of the *European Journal of Mineralogy* and the *American Mineralogist*, as well as reviewer for other international journals, including *Contributions to Mineralogy and Petrology*, *Geochimica et Cosmochimica Acta*, and *Earth and Planetary Science Letters*. He is a member of various mineralogical, geochemical, and geophysical societies.

When exactly he laid the foundation for his numerous activities to convey geoscientific content to children and young people cannot be traced in detail. Many colleagues can attest, though, that he has been very active in the field of public relations and student work alongside his successful scientific work for a very long time. While he was a junior professor in Göttingen, he designed the mineral quartet “Building Blocks of the Earth,” which he printed in 2005 with the help of sponsors. Three years later, he made the template for this quartet available to the DMG, which has seen the quartet reprinted three times since then due to high demand. DMG supplemented this in 2011 by publishing a further mineral quartet “Ore Minerals” with the active assistance of Roland Stalder. Both quartets are among the most popular merchandise products of the DMG.

Within the DMG, Roland Stalder was spokesman for the “Commission for University Questions” that had been founded in 2000/2001. During his 10-year tenure (2008–2018), this former “commission” was so successful that it was raised to the rank of “working group” during the DMG annual conference in Rimini (emc²⁰¹⁶). Since then, it has been called the “Working Group for Schools and Universities.”

As spokesman for the working group, Roland Stalder formed a network of over 30 helpers and fellow campaigners in order to jointly get the project of the mineralogical teaching case (Mileko) off the ground. The self-imposed task of developing teaching material for schools with the aim to recruit future students and to bring mineralogical contents to society could only be mastered as a team. This involved public and media appearances, teacher workshops, especially also at the invitation of the Thuringian Ministry of Education, or participation in mathematical-natural sciences (MNU) congresses. Roland Stalder raised funds from the Tutsek Foundation to implement the Mileko project. His legendary commitment to mineralogy culminated in the first Mileko workshop in 2018.

The German Mineralogical Society honors Roland Stalder by awarding him the Doris Schachner Medal for his tireless and successful engagement to render mineralogical science visible and bring it to the heart of young students.

Heidi Höfer (Frankfurt/Main)

8th GEOLOGY OF ORE DEPOSITS (GOOD) MEETING, 17–18 MARCH 2024

We cordially invite young researchers in economic geology to the 8th GOOD Meeting at the Helmholtz Institute Freiberg for Resource Technology! This meeting aims to connect young professionals working in Germany, including BSc, MSc, and PhD students, as well as early career postdocs. The meeting will provide an informal opportunity for participants to discuss their research and ideas with others working on similar topics. The **keynote** presentation will be given by **Dr. Joe Magnall** from the GFZ in Potsdam on the geology of the **European Kupferschiefer deposits**. This will also serve as an introductory lecture for the **accompanying field trip (19–21 March 2024)**. More information on registration, abstracts, etc. is available on the meeting website (see QR code).

We are looking forward to seeing you there!

The organizers –
Marie Guilcher,
Jan Cerny, and
Max Frenzel