

## DINGWELL • MEMBER OF LEOPOLDINA DEMOUCHY • EMU MEDAL RECIPIENT

### DINGWELL ELECTED INTO LEOPOLDINA



Prof. Donald Bruce Dingwell, Director of the Department of Earth and Environmental Sciences of the LMU Munich has been elected to membership in the Leopoldina, Germany's national academy of sciences. Dingwell has played a major role in the development of experimental Earth sciences in general and experimental volcanology in particular. He is already a member of 3 other academies.

Founded in Schweinfurt in 1652, the Leopoldina is the world's oldest continuously existing academy for medicine and the natural sciences. The academy elects distinguished academics and scientists to become members. Currently, the Leopoldina has approximately 1,500 members in over 30 countries.

### DEMOUCHY RECEIVES EMU RESEARCH EXCELLENCE MEDAL



The 2016 EMU Research Excellence Medal has been awarded to Sylvie Demouchy of CNRS, Geosciences Montpellier (France) for her scientific leadership in experimental geochemistry and mineral physics, her scientific breadth, and her extensive service to the academic community. She completed her PhD at the Bayerisches Geoinstitut (Germany), focusing on hydrogen incorporation mechanisms in olivine and its high-pressure polymorph wadsleyite. She subsequently went on to post-doctoral positions at the Lunar

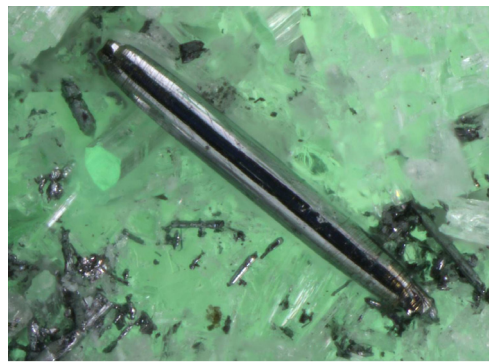
Planetary Institute, Houston, and the University of Minnesota (USA), where she has broadened her scientific portfolio by becoming a rock squeezer. In 2007, she moved to the CNRS in Montpellier, where she is currently a tenure researcher in the Mantle-Interfaces research group, leading their high-pressure laboratory and enjoying experimental mineralogy with the young researchers. She is coauthor of over 36 major publications in top international journals, making significant breakthroughs in the understanding of hydrogen mobility in upper mantle minerals, and the viscoplasticity of olivine-rich rocks, using both experimental techniques and natural mantle rock specimens. She has consistently demonstrated that rheological laws established at high-temperature cannot be extrapolated to lithospheric conditions, and has elegantly demonstrated that hydrolytic weakening of olivine is probably only a minor effect in the uppermost mantle. In addition to her research achievements, Sylvie has been involved in several European research programs during her career, as a student on the European Union's Training and Mobility of Researcher's HydroSpec programme (TMR HydroSpec), a young researcher on the EU's Marie Curie project International Reintegration Grand's Physics of the Earth's Mantle (IRG PoEM), to a PhD supervisor for the European Union's Horizon 2020 action Innovative Training Network for Complex Rheologies in Earth dynamics and industrial Processes (ITN CREEP), and trained a large number of research students and young scientists.

Dr. Demouchy presented her award talk at the Goldschmidt conference in Paris (France) in August 2017 during session 7e, "Diffusion, deformation and transport processes in geomaterials". Her presentation focused on the distribution of hydrogen in the rocks of the uppermost mantle and its consequences on Earth's dynamic.

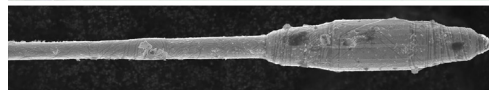
## IMA 2016 MINERAL OF THE YEAR

The International Mineralogical Association is pleased to announce that the Mineral of the Year award for 2016 goes to *merelaniite*,  $\text{Mo}_4\text{Pb}_4\text{VSbS}_{15}$ .

This mineral was discovered in collector specimens from the Merelani region in northeastern Tanzania, and investigated by John A. Jaszczak (Michigan Technological University, Houghton, USA), Michael S. Rumsey (Natural History Museum, London, UK), Luca Bindi (Università di Firenze, Florence, Italy), Stephen A. Hackney (Michigan Technological University), Michael A. Wise (National Museum of Natural History, Washington DC, USA), Chris J. Stanley (Natural History Museum, London), and John Spratt (Natural History Museum, London).



(TOP) A cylindrical whisker of merelaniite (0.73 mm long) perched on green dravite; Merelani, Tanzania. (BOTTOM) Scanning electron microscope image revealing the scroll-type structure of a 0.07 mm long segment of a merelaniite whisker.



Merelaniite, whose unusual whisker-like crystals were initially mistaken for molybdenite, is actually a new member of the cylindrite group (Jaszczak et al. 2016). The new species is remarkable not only for its morphology, which is reminiscent of slender microscopic "scrolls", and its structure, which is composed of alternating pseudo-tetragonal (PbS-type) and pseudo-hexagonal ( $\text{MoS}_2$ -type) layers, but also for the fact that it comes from the famous mining area that has produced the gemstone tanzanite (vanadium-bearing blue zoisite) for 50 years. Other unusual minerals found in association with merelaniite are well-crystallized wurtzite and alabandite, which represent just one evolutionary stage in the complex metamorphic history of the Merelani deposits. We would like to congratulate John Jaszczak, Mike Rumsey, and their co-authors on this award and encourage all readers to learn more about merelaniite from the open-access article in *Minerals* ([www.mdpi.com/2075-163X/6/4/115](http://www.mdpi.com/2075-163X/6/4/115)).

The close runner-ups were the Pb-Cu-Te oxysalt *andychristyite* (Kampf et al. 2016a), and the mineral *vanarsite*, which contains As-V polyanions (Kampf et al. 2016b).

### REFERENCES

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- Kampf AR, Hughes JM, Nash BP, Marty J (2016b) Vanarsite, packratite, morrisonite, and gatewayite: four new minerals containing the  $[\text{As}^3+\text{V}^{4+},5+_{12}\text{As}^{5+}_6\text{O}_{51}]$  heteropolyanion, a novel polyoxometalate cluster. *Canadian Mineralogist* 54: 145-162