



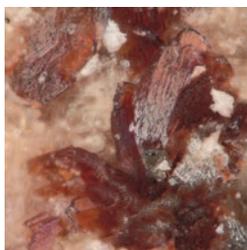
International Mineralogical Association

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MINERAL OF THE YEAR 2014

More than 100 novel mineral species are discovered every year. Many of them represent chemical variations of previously known structure types, and some are natural analogues of artificial chemical compounds. However, there are many new minerals that possess unique chemical compositions, interesting and complex structures, beautiful crystals, or that form under unusual conditions. To celebrate such species, the IMA council has developed an annual award—Mineral of the Year—in order to recognize the most interesting mineral published during the previous year. The members of the IMA Commission on New Minerals, Nomenclature and Classification will select a winner each year.

It is a pleasure to announce that the first Mineral of the Year award, for 2014, goes to ... **ophirite!**



Ophirite, $\text{Ca}_2\text{Mg}_4[\text{Zn}_2\text{Mn}_{2^{3+}}(\text{H}_2\text{O})_2(\text{Fe}^{3+}\text{W}_9\text{O}_{34})_2] \cdot 46\text{H}_2\text{O}$, is a new mineral species from the Ophir Hill Consolidated mine, Ophir district, Oquirrh Mountains, Tooele County in Utah (USA). It was described by Anthony R. Kampf of the Natural History Museum of Los

Angeles County (California, USA) with coauthors John M. Hughes (University of Vermont, USA), Barbara P. Nash (University of Utah), Stephen E. Wright (Miami University, USA), George R. Rossman (California Institute of Technology), and Joe Marty (Utah). The full description of ophirite can be found in Kampf et al. (2014). Ophirite forms beautiful orange-brown tablet-shaped crystals up to 1 mm in length and is the first known mineral to contain a lacunary defect derivative of the Keggin anion, i.e. a heteropolyanion missing some of its octahedral segments (Keggin 1934). Phases with the Keggin anion are important in solid-state chemistry as catalysts (e.g. Sun et al. 2009).

We would like to mention that there were other very interesting phases that were close runners-up. These included bluebellite, $\text{Cu}_6[\text{I}^{5+}\text{O}_3(\text{OH})_3](\text{OH})_7\text{Cl}$ (Mills et al. 2014); qingsongite, BN (Dobrzhinetskaya et al. 2014); and peterandresenite, $\text{Mn}_4\text{Nb}_6\text{O}_{19} \cdot 14\text{H}_2\text{O}$ (Friis et al. 2014).

Once again, we would like to congratulate the discoverers of ophirite and encourage all readers of *Elements* to find out more about this fantastic find in the Kampf et al. *American Mineralogist* article.

Сергей Кривовичев, IMA President

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Société Française de Minéralogie et de Cristallographie

www.sfmc-fr.org

EMU-SFMC PETROCHRO2015: COMPOSITIONAL MICRO-MAPPING USING XMAPTOOLS

The PETROCHRO2015 Workshop on compositional micro-mapping using the software XMapTools (<http://www.xmaptools.com>) was held 8–10 June 2015 at the Institute of Earth and Environment Science, University of Potsdam (Germany). It was co-organised by Dr. Pierre Lanari and Dr. Amaury Pourteau, with the assistance of Chloé Loury (University of Nice–Sophia-Antipolis) and Stephen Centrella (University of Münster). The participants included MSc and PhD students, as well as researchers from twelve countries. The European Mineralogical Union (EMU) and the Société Française de Minéralogie et de Cristallographie (SFMC) offered three grants to encourage the participation of young researchers; the SFMC supported the attendance of Dr. Vincent Trincal (University of Lorraine).



Group photo of the PETROCHRO2015 Workshop

During this workshop on XMapTools, there were morning presentations on the concepts behind this computer program on compositional micro-mapping techniques, on standardisation procedures and on how to use XMapTools to estimate *P-T* conditions. The afternoons were spent on tutorials and on the participants working through their own examples. The second day ended with a traditional and friendly German dinner in Potsdam. Professor Roland Oberhänsli concluded the workshop by reminding the young scientists that despite data assessment being of utmost importance in quantitative petrology, computer codes are just another tool to help users digest huge amounts of data: they support – but do not replace – having to think about geological processes and conditions of rock formation.

NATURAL HYDROGEN (SEPTEMBER 30, PARIS)

The SFMC and the French Ministère de l'Éducation Nationale, de l'Enseignement Supérieur et de la Recherche (MENESR) co-sponsored the Société Géologique de France (SGF) meeting "Natural hydrogen, geo-inspired processes and CO₂ valorisation", held in Paris. The meeting was attended by about 110 researchers and managers who came from academic research institutes and large companies such as Total and Air Liquide. The meeting's program, organized by Michel Pichavant (Orléans University), discussed hydrogen production within the oceanic floor (serpentinisation) and in continental settings and examined the industrial challenges of how this hydrogen might be produced and stored. A round-table panel further examined the questions of the direct exploitation of natural H₂, the development of geo-inspired H₂ production processes, and the economic advantages of H₂ produced without CO₂ emission.