

Société Française de Minéralogie et de Cristallographie

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THE SFMC'S HÄUY-LACROIX PRIZE FOR 2020

The French Society of Mineralogy and Crystallography's committee awarded the society's Haüy-Lacroix Prize for 2020 to Adrien Néri and to Yann Foucaud.

Adrien Néri's PhD thesis "Metal–Silicate Differentiation in Early Accreted Small Bodies of the Solar System: A Multidisciplinary



Approach" was supervised by Ghylaine Quitté and Mike Toplis at the Research Institute in Astrophysics and Planetology (Toulouse University, France). The aim of his work was to characterize metal–silicate melt segregation processes that coexist with olivine in meteorites (pallasites). His multidisciplinary approach combines 1) remarkably high-pressure and high-temperature experiments to characterize the metal–silicate texture (3D interconnected networks); 2) thermodynamic models to integrate with the experiments so as to constrain the viscosity of a past magma ocean and illuminate the genesis of pallasites; 3) a petrographic study on natural primitives achondrites.

Yann Foucaud completed his PhD at the GeoRessources laboratory at the University of Lorraine (Nancy, France) under the supervision of Lev Filippov and Inna Filippova. His PhD "Recovery of Tungsten from a Skarn with Low Separation Contrast – Contribution of Molecular Modeling in the Flotation of Calcium Minerals" demonstrated how to optimize the process of concentrating scheelite (CaWO₄) from a skarn and so maximise the benefits of this important mineral resource. To reach the objectives, Yann Foucaud combined experimental applied mineralogy to optimize the different stages of ore concentration with a theoretical study using ab initio molecular modeling to explore interactions occurring at the surface of minerals.

SFMC MERIT AWARD 2020

The French Society of Mineralogy and Crystallography is honoured to present its first 2020 Merit Award to Prof. Georges Calas.



Georges Calas is internationally recognized for his expertise in the crystallochemistry of transition elements and in point defects in minerals and glasses. His work has applications in environmental mineralogy (notably, the study of laterites), heavy metal remediation, the formation of ore deposits (notably Co and Sc ores), and nuclear waste materials. His research interests also include the colour of

minerals and glasses, including medieval stained glasses which was a key topic in popularizing the discipline in France. He was a pioneer in the use of X-ray and neutron diffraction to decipher the relationship between structure and properties in glasses and in silicate melts. Furthermore, he has led the way in applying spectroscopic methods to mineralogy: these include ultraviolet–visible spectroscopy, Mössbauer spectroscopy, X-ray absorption spectroscopy, and electron paramagnetic resonance. Most recently, his research has focused on mineral resources and sustainable development. Georges Calas was also strongly involved in the research management of ore deposits at the national level. His publication record includes over 300 international articles and book chapters. He is currently an emeritus professor at the Sorbonne University and is researcher at the Institut de Minéralogie, de Physique des Matériaux et de Cosmochimie in Paris.

