

## BALZAN PRIZE TO HEMLEY AND MAO



Russell J. Hemley and Ho-Kwang Mao

The International Balzan Foundation awarded one of its prestigious prizes to MSA members Russell J. Hemley and Ho-Kwang Mao for “the impressive impact of their joint work leading to fundamental breakthroughs, theoretical and experimental, in the field of minerals submitted to extreme physical conditions.” The goal of the International E. Balzan Prizes is fostering culture, the sciences and the most meritorious humanitarian initiatives of peace and brotherhood among peoples, regardless of nationality, race or creed. Each prize has a value of

one million Swiss francs (about 650,000 euros); half of the prize must be designated by the prize-winner for research work, preferably involving young scholars. The International Balzan Foundation was established in 1956 by Angela Lina Balzan in memory of her father, Eugenio Balzan, who was co-publisher for many years of the *Corriere della Sera*, an influential Italian newspaper. It awards four prizes every year in the fields of natural sciences, humanities, social sciences, and art. We reproduce part of the citation.

“What happens at extremely high pressures? The two physicists Russell J. Hemley and Ho-kwang (David) Mao have focused on this question in their research. Hemley and Mao both work at the Geophysical Laboratory of the Carnegie Institution in Washington, USA, and devote themselves to investigating the properties of substances under extreme conditions. This particularly means at high temperatures, but also at pressures of up to 2.5 megabars.

In 1976, Ho-kwang (David) Mao and his colleagues were the first to create a static pressure of 1 megabar – one million times the ambient pressure at sea level and double what had previously been achieved in a laboratory. Since 1985, in collaboration with Russell J. Hemley, he has further improved the technique of creating such pressures as well as the methods of analyzing what happens to substances exposed to them. Hemley and Mao have observed and described numerous extreme-pressure phenomena such as the occurrence of new types of molecular bonds, the creation of new, extremely hard materials, superconductors and magnetic structures, as well as pressure-induced crystallization and amorphisation.

The two scientists are also particularly interested in planetary materials, leading to conclusions about processes taking place within Earth and other planets. Both researchers have already won many awards: Hemley was most recently honored with the Hillebrand Medal of the American Chemical Society in 2003, while in 2005 Mao received both the Gregori Aminoff Prize of the Royal Swedish Academy of Sciences and the Roebing Medal of the Mineralogical Society of America.”

## CMS PEOPLE IN THE NEWS



Dewey Moore, Past President, signs off to Cliff Johnston 2005, President of The Clay Minerals Society (CMS)

Pete Ryan and Michelle Hluchy, organizers of the 2005, 42<sup>nd</sup> Annual CMS Meeting



Andreas Bauer organized the 2005 CMS Workshop

Richard Brown, photographer for the 42<sup>nd</sup> Annual CMS Meeting



## BODNAR TO RECEIVE N.L. BOWEN AWARD



Robert J. Bodnar (Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA) will be recognized by the American Geophysical Union

(AGU) for his landmark contributions to studies of fluid inclusions in minerals and to aqueous and hydrothermal geochemistry. He will be presented with the 2005 Bowen Award at the 2006 Joint Assembly in Baltimore, Maryland. The Bowen Award is given annually for outstanding contributions to volcanology, geochemistry, or petrology.