Italian Society of Mineralogy and Petrology

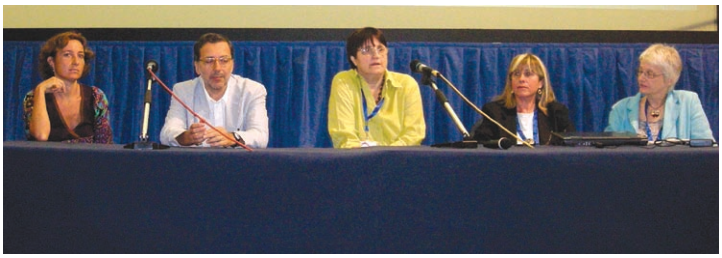
http://simp.dst.unipi.it

FIRST JOINT SIMP-AIC MEETING

Sestri Levante (GE), 7–12 September 2008

The 86th meeting of the Società Italiana di Mineralogia e Petrologia was held jointly with the 37th congress of the Associazione Italiana di Cristallografia. This first joint meeting of SIMP and AIC ("Learning From and For Planet Earth: Structures and Models in Earth, Materials and Life Sciences") was held on September 7–12, 2008, at the Congress Centre of the Fondazione Mediterraneo (Sestri Levante, Genova, Italy), originally built as a Dominican Fathers convent (15th century) and located on the beautiful beach of Silence Bay. The meeting was held under the patronage of the National Committee for the Year of Planet Earth and benefitted from the sponsorship of many institutions and companies.

The aims of the meeting were to strengthen relations among the Italian petrological, mineralogical and crystallographic communities; to highlight new points of contacts; and to stimulate further synergies. Particular emphasis was devoted to the contributions that an atomistic perspective may give to the study of geo-materials, with respect to their stability and systematics and to their role in natural and anthropogenic processes, especially as far as interactions between the geo- and the biosphere are concerned. The rationale of the meeting was a journey from the interior to the surface of the Earth, starting with our present knowledge of mantle processes, then focusing on reaction surfaces in minerals and in geo- and nano-materials, and ending with the study and engineering of materials relevant to Earth, materials and biological sciences.



Gabriella Lucchetti (chair of the organizing committee) speaks at the opening ceremony. On her left are SIMP President Simona Quartieri and AIC President Roberta Oberti.

The conference symposia covered a broad spectrum of research fields. The meeting included plenary sessions with invited lectures devoted to mantle processes and geodynamics; petrology and volcanology; structures, surfaces, and reactivity; and materials, from Earth and lab to life (Boanini, Calestani, Menzies, Hawthorne, Janssens, Mattevi, Paoli, Peccerillo, Santacroce, Sokolova, Valdrè, Wogelius, Zanardi). The meeting also included several disciplinary symposia that summarized the state of the art in Italian research in mineralogy and petrology, applications to environmental issues and cultural heritage, and many facets of crystallographic research.

The five-day event was attended by about 250 scientists from Italy and foreign countries, and over 200 presentations (13 plenary lectures, 22 keynote addresses, 51 oral presentations and 118 posters) were offered. The abstracts are included in issue no. 34 of *Plinius*. This first joint meeting of SIMP and AIC proved to be very useful in letting researchers in different disciplines attend two overlapping events.

The site of the congress

A one-day field trip was held before the meeting in the Val Graveglia manganese mines and the Val Fontanabuona slate quarries. It concerned the conservation and reuse of mining heritage. The scientific part focused on the mineralogy and mineral genesis of manganese mineralisation, on the mineralogy, origin and properties of Ligurian slate, and on the underground ecomuseum.

2008 SIMP PANICHI PRIZE (FOR MINERALOGY) TO MICHELE ZEMA

Michele Zema is a researcher in mineralogy at the University of Pavia and an associate researcher at the Istituto di Geoscienze e Georisorse of the Italian CNR. He took a degree in chemistry at the University of Pavia in 1993 and earned a PhD in mineralogy and crystallography in 1997. From 1997 to 2002 he was manager of the X-ray crystallographic facility at the Centro Grandi Strumenti of the University of Pavia. His research deals mainly with the behaviour of mineral solid solutions under different conditions of pressure and temperature, and is focused particularly on the study of the dynamics of cation-ordering phenomena. He uses X-ray diffraction and in situ and ex situ annealing techniques, combined with various other experimental methods, as probes of structural processes. He is interested and actively engaged in a number of projects. Examples include order–disorder processes in silicates and oxide minerals, in situ hydration/dehydration of zeolites and micas, and structure–property relationships in strategic materials for technological applications. In his studies of order–disorder processes, he has contributed to the development of intracrystalline geothermometers based on the cation-exchange reactions in orthopyroxene and pigeonite and has applied these tools to reconstruct the thermal histories of terrestrial and extra-terrestrial rocks. One recent highlight is the study of the mechanism of formation of nanodomains associated with cation ordering in columbite minerals by means of TEM and synchrotron X-ray powder diffraction with PDF analysis. He is in charge of national research projects, has co-authored 46 ISI publications and has solved more than a hundred new crystal structures of molecular and non-molecular compounds.