

Report of the Commission on Mineral and Inorganic Structures (CIMS) for the year ending 31 December 2006

Contacts among the Members and Consultants of CIMS have been maintained mainly via e-mail and the web site <http://www.lcm3b.uhp-nancy.fr/cims/> administered by the consultant member Massimo Nespolo. Some members had the opportunity of meeting and discussing CIMS activity in occasion of the following events: 19th Meeting of the International Mineralogical Association (IMA) (Kobe, 23-28 July 2006); ECM23 (Leuven, 6-11 August 2006); Satellite of AsCA06 in Tsukuba (18-19 November 2006) on Theoretical Crystallography and Materials Science co-organized by the IUCr Commissions CIMS and MaThCryst.

The main activity of CIMS in 2006 has been the organization of the following events.

1) - Satellite of ECM23 in Leuven (4-6 August 2006) on Mathematical and Theoretical Crystallography (<http://www.lcm3b.uhp-nancy.fr/mathcryst/leuven2006.htm>) co-organized by CIMS and MaThCryst Commissions. G. Ferraris, lectured on "Symmetry constraints and modularity: tools to model inorganic crystal structures". The Satellite had 46 registered participants from 15 countries.

2) – Satellite of AsCA06 in Tsukuba (18-19 November 2006) on Theoretical Crystallography and Materials Science (<http://www.lcm3b.uhp-nancy.fr/mathcryst/asca2006.htm>) co-organized by CIMS and MaThCryst Commissions. The Satellite had 31 participants from 9 countries. The following lectures were delivered by members of CIMS:

- a) G. Ferraris: Symmetry constraints on the physical properties of an anisotropic material.
- b) M. Matsui: Computer simulation of temperature-pressure-volume equations of state of melts in the system CaO-MgO-Al₂O₃-SiO₂.
- c) D. Pandey: Phase transitions in mixed perovskites.

Besides the presence given above, members of CIMS have reported to the Chair the following personal activity related to the purposes of the Commissions:

W. Depmeier: chair of the ECA Special Interest Group SIG5 "Mineralogical Crystallography"; member of the Programme Committee for ECM-23.

G. Ferraris: member of the Programme Committee and convener of IMA-19; vice-chair of the Commission on New Minerals and Mineral Names (CNMMN) of IMA; member in the Organizing and Programme Committee of the mentioned Satellite Meeting of AsCA.

M. Matsui: chair of the Meeting Secretariat for IMA-2006; principal convener of the Scientific Session "Computational study of mineral structures and properties" at the same meeting; editor of Physics and Chemistry of Minerals.

L. McCusker: invited lectures at Heyrovsky Institute (Prague), School on structure determination by the combination of X-ray powder diffraction and electron crystallography, Antwerp, Belgium (satellite to ECM-23), ECM-23 and EPDIC-10; member of the Organizing Committee for EPDIC-10 and the Program Committee for IZC-15; co-editor for Acta Crystallographica B; co-maintains the IZA websites <http://www.iza-online.org/> and <http://www.iza-structure.org/>.

M. Nespolo: chair of the IUCr Commission MaThCryst; associated editor of the European Journal of Mineralogy; secretary of the Special Interest Group SIG5 "Mineralogical Crystallography" of ECA; chair of the Organizing and Programme Committees of the mentioned Satellite Meetings of ECM-23 and AsCA-2006; chair of the MS19 "Phase Transitions in inorganic and mineralogical materials" at ECM-23; co-convener of the MS8 "Crystal structure, topology and

crystal chemistry" at IMA-2006; guest editor of issue 3/2006 of Acta Crystallographica A.

D. Pushcharovsky: invited lecturer at ECM-23; Associate Editor of the European Journal of Mineralogy.

P. Thomas: member of the Programme Committee for ECM-23.

E. Tillmanns: chief editor of the European Journal of Mineralogy; chair of the Organizing Committee of the 20th General Meeting of the International Mineralogical Association (IMA) (Budapest, Hungary, 2010).

Giovanni Ferraris, Chair