Report of the Commission on Mineral and Inorganic Structures (CIMS) for the year ending 31 December 2005.

The 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. Most of the Members who served the Commission in the triennium 2002-2005 and/or are serving for the triennium 2005-2008 attended IUCr-XX in Florence (August 23-31, 2005), so there it was possible to meet and discuss the activity and programs of CIMS live.

The main activity of CIMS in 2005 has been the organization of the following events proposed by the Commission at the IUCr-XX (Members of CIMS who acted as Conveners are indicated in parentheses):

OCM05 - Open Commission Meeting of CIMS (G. Ferraris);

MS7 - Crystal chemistry of inorganic and mineral compounds (W. Depmeier);

MS35 - Polytypism and twinning (G. Ferraris);

MS79 - Inorganic and mineral structures solved and refined by powder diffraction data (J. Rius);

MS14 - Modularity and modulation in inorganic and mineral structures;

MS28 - Structure/properties relationships of technologically relevant inorganic and mineral compounds (J. Rocha);

Keynote lecture: Lynne B. McCusker. Unfortunately, a second keynote lecturer, Tim White, could not attend the meeting.

In general, an increase in the number of participants, microsymposia and contributions in the field of inorganic and mineral structure, in comparison with previous IUCr general meetings, has been noted in Florence. The following oral contributions were presented by members of CIMS at the shown Microsymposia/OCM:

G. Ferraris: MS14.

D. Yu. Pushcharovsky: OCM05.

J.D. Brown: OCM05.

M. Matsui: OCM05.

M. Nespolo: MS35

D. Pandey: MS05

J. Rocha: MS18.

Following the meeting “Micro- and Mesoporous Mineral Phases” (December 6-7, 2004, Rome, Italy) organized by CIMS, the twelve invited lectures have been published as volume 57 of the series “Reviews in Mineralogy and Geochemistry” of the Mineralogical Society of America (same title of the meeting; editors: G. Ferraris and S. Merlino; CIMS contributors: L. B. McCusker, W. Depmeier, G. Ferraris and J. Rocha). Ten other contributions have been published in a dedicated issue of the European Journal of Mineralogy (issue 2005/6).

CIMS co-sponsored the International School on Mathematical and Theoretical Crystallography organized by M. Nespolo (June 20-24, 2005, Nancy, France). The school was attended by 61 participants from 20 countries of 4 continents. A special issue of Acta Crystallographica Section A (issue 2006/2), guest editor M. Nespolo, containing articles contributed by lecturers and participants to the Nancy school has been published.

The ECM-22 satellite meeting “Crystallography at the start of the 21st century: mathematical and symmetry aspects” (August 24-26, 2004, Budapest, Hungary) was organized by M. Nespolo and sponsored by CIMS. A special issue of Zeitschrift für Kristallographie (issue 2006/1), containing articles contributed by lecturers and participants of the satellite has now been published.

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

G. Ferraris is member of the Programme Committee and convener of the 19th Meeting of the International Mineralogical Association (IMA) (July 23-28, 2006, Kobe, Japan); Vice-chair of the

Commission on New Minerals and Mineral Names (CNMMN) of IMA; member in the Organizing and Programme Committee of the Satellite Meeting of the Asian Crystallographic Association (AsCA): Theoretical Crystallography and Materials (November 18-19, 2006, Tsukuba, Japan)

D. Pushcharovsky represented CIMS in the Programme Committee of IUCr-XX.

W. Depmeier has been co-organizer of the meeting "Mineralogical Museums" (June 14-17, 2005, St. Petersburg, Russia); a volume with the same title was edited by V. G. Krivovichev and W. Depmeier (St. Petersburg, 2005). Is chair of the ECA Special Interest Group SIG5 "Mineralogical Crystallography" and member of the programme committee for ECM-23 (August 6-11, 2005, Leuven, Belgium).

M. Jansen co-organized an International workshop on *in situ* powder diffraction (Stuttgart, October 2005). The workshop manual and some impressions are available at http://www.fkf.mpg.de/xray.

M. Matsui is chair of the Meeting Secretariat for IMA-2006 (July 23 - 28, 2006, Kobe, Japan) and principal convener of the Scientific Session "Computational study of mineral structures and properties" at the same meeting; editor of Physics and Chemistry of Minerals; he has been invited speaker at the 15th Annual Goldschmidt Conference (May 20 - 25, 2005, Moscow, Idaho, USA).

L. McCusker besides the keynote lecture at IUCr-XX delivered invited lectures at Jilin University (China) and Kiel University (Germany). She is member of organizing/program committees for ZMPC2006 (Yonago, Tottori, Japan, 2006), EPDIC-10 (Geneva, Switzerland, 2006) and 15th IZC (Beijing, China, 2007). Co-maintains the IZA websites http://www.iza-online.org/ and http://www.iza-structure.org/ (Database of Zeolite Structures).

M. Nespolo is 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. He is chair of the Organizing and Programme Committee of the Satellite Meetings of the European Crystallographic Association (ECM-23): Mathematical and Theoretical Crystallography (Leuven, Belgium, August 4-6, 2006), and of the Asian Crystallographic Association (AsCA): Theoretical Crystallography and Materials (November 18-19, 2006, Tsukuba, Japan), chair of the MS19 "Phase Transitions in inorganic and mineralogical materials" at ECM-23 (Leuven, Belgium, August 6-11, 2006), and co-convener of the MS8 "Crystal structure, topology and crystal chemistry" at IMA-2006 (July 23 - 28, 2006, Kobe, Japan).

J. Rius was chair of the Special Interest Group SIG8 of ECA and Associated Editor of the European Journal of Mineralogy.

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

Giovanni Ferraris, Chair