This report summarizes the activities of the Commission on Inorganic and Mineral Structures (CIMS) during its fourth triennium of existence, after its establishment at the 19th General Assembly of the IUCr, 2002. The aims pursued by CIMS since its inception include:

- To strengthen the links and interactions of structural inorganic scientists with the crystallographic community;
- To promote the organisation during the IUCr meetings of microsymposia specifically dedicated to the Commission’s purposes;
- To promote, support and organize conferences, symposia, workshops and schools of interest to the crystallographic inorganic community;
- To promote the publication of inorganic crystallography matters in the IUCr journals and book series, and elsewhere.

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Members and consultants of CIMS discussed various issues via email. Other forms of communication took place at meetings or conferences, or by using the website. The latter is kindly maintained by M. Nespolo (http://www.crystallography.fr/cims/).

The Commission on Structural Crystallography, CSC, of IUCr and CIMS maintain their links. A. Beatty is representative of CSC in CIMS while P. Mercier represents CIMS in CSC.

P. Mercier continues to act as liaison officer of CIMS with IUCr Newsletter. He is also representative of CIMS in the IUCr Working Groups on Database Users and on Diffraction Data Deposition.

Strong links exist between CIMS and the Special Interest Group 5 of the European Crystallographic Association (ECA - SIG5, http://sig5.ecanews.org/). At present, the secretary of SIG5 is O. Siidra, the Chairman S. Krivovich and F. Hatert Vice-Chairman.

There are very good relationships between CIMS and the European Mineralogical Union (EMU, http://eurominunion.org/); R. Oberti (EMU past president since 2013) is member of CIMS for the period 2011 – 2014 and also Commissioning editor of the EMU Notes in Mineralogy.

**Co-organization of scientific meetings**

The following meetings and conferences have been proposed/organized by CIMS. The activities of members and/or consultants of CIMS as organizers/conveners/lecturers are indicated. Here, no reference is made explicitly to the CIMS contribution to the organization of the XXII Congress and General Assembly of IUCr, held on 22-30 August 2011 in Madrid because this work pertains to the previous CIMS report.

1) “Second SMARTER (Structure elucidation by coMbining mAgnetic Resonance, computaTion modEling and diffRactions) Crystallography Workshop”, took place on 23-27 May 2011 at University of Aveiro, Aveiro, Portugal (http://smarter.web.ua.pt). J. Rocha chaired the Organizing Committee. This event was attended by 115 researchers from 12 countries. IUCr sponsored 7 young scientists to attend this meeting.

2) “Third SMARTER Crystallography Workshop” was held in Versailles, France, on 10-13 September 2012 (http://www.smarter3.uvsq.fr). J. Rocha was one of the organizers (member of the Board Committee). Almost 100 people attended and 34 lectures were delivered.

3) 2011 General Assembly of the European Geosciences Union (EGU; Vienna, April 3-8). R. Oberti was convener of session GMPV21/GD2.15 “Rock forming minerals: properties, information and constraints on petrological processes and numerical models”.


7) Congress and General Assembly of the IUCr, Madrid (Spain), 22-30 August 2011. O. Yakubovich gave an oral presentation in the micro symposium “Minerals as advanced materials” and W. Depmeier gave an oral presentation in MS25.

8) Italian two-day symposium celebrating “The Centennial of X-ray Diffraction (1912-2012)”, co-organized by the Accademia Nazionale dei Lincei, the Accademia delle Scienze di Torino and AIC (Rome, May 8-9, 2012). R. Oberti and G. Ferraris were members of the organizing committee. This symposium obtained the patronage of the ECA. More than 100 persons attended the lectures (delivered by outstanding scientists among which two Nobel laureates and one recipient of the Ewald prize), which focused on the history of crystallography and its revolutionary impact on many scientific disciplines. The lectures have been published in Rendiconti Lincei, 2013, vol. 24 (supplement n. 1); G. Ferraris acted as co-editor.

9) “2013 Goldschmidt Conference” held in Florence (August 25-30). R. Oberti was co-chair of the theme “The cutting edge in mineralogy and mineral physics” and member of the organizing committee. The theme organised nine sessions, including "GEOLIFE- Geomaterials for environment, technology and human activities” convened by R. Oberti [with R. Gieré (Freiburg), S. Quartieri (Messina) and R. Wogelius (Manchester)]. A special issue of the Mineralogical Magazine devoted to the same issue is in preparation. Another session in the scope of CIMS organized in the framework of the theme was ”High pressure mineral physics: A key to study Earth’s dynamics”, convened by P. Comodi (Perugia), L. Dubrovinsky (Bayreuth), T. Balic-Zunic (Copenhaghen), R. Caracas (Lyon).

10) O. Yakubovich co-chair of Microsymposium MS19, ECM28, The 28th Meeting of the European Crystallographic Association 25-29 August 2013, Warwick. Also gave a talk in MS 18 entitled “A polysomatic series of two dimensional vanadates, arsenates and phosphates”.

**Co-organization of the following 2014 meetings**

1) CIMS has been much involved in the preparation of the 2014 IUCr Montreal congress; CIMS chair J. Rocha attended the IPC meeting in Montreal on 6-8 May. In particular CIMS is organizing 3 microsymposia: (i) MS 1, P. Thomas is chairing (with K. Sugiyama) “Phase transitions in functional inorganic materials and minerals”; (ii) MS 15, O. Yakubovich participated is chairing (with S. Pereira) “The role of defects in crystal structure formation, organization and stability”; (iii) MS74, P. Mercier is chairing (with R. Peterson) Mineralogical crystallography”. Moreover, D. Pandey will deliver a keynote entitled: “The world of perovskites: the Earth's lower mantle material to exotic advanced materials”.

2) J. Rocha is member of the organising committee of conference SMARTER4, to be held on 1-4 September 2014 in Durham University, UK.

3) M. Nespolo and S. Krivovichan represent CIMS in the Advisory Committee of the 2014 Meeting of the International Mineralogical Association, to be held on 1-5 September 2014 in Gauteng, South Africa, where CIMS is in charge of the “Mineralogical Crystallography sessions.

4) R. Oberti is co-chairing the organizing committee of the 1st ECA European Crystallographic School, "Reinforcing foundations to build the 2nd century of modern crystallography” to be held in Pavia (Italia) 28 August-6 September 2014. This event is funded by Erasmus IP, and will be accompanied by talks open to the citizens to celebrate the International Year of Crystallography (IYCr).

5) G. Ferraris and R. Oberti are members of the scientific committees for the organisation of two meetings to celebrate IYCr in Italy: (i) "Impact of Crystallography on modern science", organized by the Accademia delle
Scienze di Torino, to be held in Torino on June 25 and with a talk by Robert Hubert, Nobel laureate 1988, entitled "Beauty and fitness for purpose: the architecture of proteins, the building blocks of life" (Oberti will give a talk on the impact of crystallography and crystal-chemistry on petrology and geochemistry); (ii) "Challenges in Crystallography", organized by the Accademia Nazionale dei Lincei, and will be held in Rome on October 13-14 2014 (CIMS chair, J. Rocha, will give a talk on Materials and Crystallography).

6) D. Pandey is chair and M. Nespolo member of the programme committee of the Workshop on “Symmetry relationships between crystal structures with application to structural phase transitions”, to be held in Varanasi, India, on 27-31 October, 2014 (both are also lecturers).

**CIMS supported the application for financial funding by IUCr of the following meetings**

- III International Conference Crystallogenesis and Mineralogy, September, 27-October, 1, 2013, Novosibirsk, Russian Federation.
- EMU school on “Minerals at Nanoscale”, June 3-6, 2013, Granada, Spain.
- 1st ECA European Crystallography School, Pavia (Italy), 28 August - 6 September 2014.
- Workshop on “Symmetry relationships between crystal structures with application to structural phase transitions”, Varanasi, India, 27-31 October 2014.
- XVIII International Conference on Crystal Chemistry, Diffraction and Spectroscopic Studies of Minerals to, Yekaterinburg, Russia, 13-15 October 2014.

**CIMS also gave (‘moral’) support to the following meetings**

- Short Course “Uranium: Cradle to Grave” organised under the auspices of the Mineralogical Association of Canada, May 2013, Winnipeg, Canada.
- ‘GEOLIFE-Geomaterials for environment, technology and human activities’ included in the theme ‘The cutting edge in mineralogy and mineral physics’ of the 2013 Goldschmidt Conference, 25 - 30 August, Florence, Italy.

2 April 2014.

João Rocha
(Chair of CIMS)