



International Mineralogical Association
Commission on Applied Mineralogy
www.ima-mineralogy.org

2010 Annual Report

1. Title of Commission:

Commission on Applied Mineralogy (CAM)

Current Officers:

Chairman: Eric Pirard

Vice-Chairman: Maarten Broekmans (position still to be approved by IMA)

Secretary: Megan Becker

Past-Chair: Dogan Paktunc

Sub-commission Chair (Building Materials): Maarten Broekmans

Sub-commission Chair (Cultural Heritage and Archaeological Materials): Isabella Turbanti Memmi

Sub-commission Chair (Advanced Ceramics and Glasses): Hans-Joachim Kleebe

Sub-commission Chair (Geometallurgy): Dee Bradshaw

Reporter:

Megan Becker

2. Objectives:

Vision: To provide leadership in knowledge sharing for the broad range of applied mineralogy fields and to offer means for professional development for applied mineralogists.

Mission: To build and sustain a strong commission that provides value to its members in alignment with the IMA's vision.

CAM's interest areas cover a full spectrum of applied mineralogy activities in extractive metallurgy, mineral exploration and mine development, building materials, ceramics, glasses, preservation of cultural heritage and archaeological materials, disposal of mine and industrial wastes, and development of advanced characterization techniques.

3. Business Meeting held during 2010:

A business meeting was held on 24 August 2010 (18.30 - 20:00) at Eötvös University during the course of the IMA 2010 20th General meeting in Budapest, Hungary. Desh Chetty (South Africa), Kari Kojonen (Finland), Eric Pirard (new Chair), Jan Elsen (Belgium), Thomas Kerestedjian (Bulgaria), Dogan Paktunc (Chair), Ulf Halenius (Sweden), Tonci Balic-Zunic (Denmark), Robert Heimann (Germany), Marek Michalik (Poland), Jeff Mauk (New Zealand), Dieter Rammelmaier (Germany), Georges Calas (France), Laurence Galois (France) and Megan Becker (Secretary) were in attendance.

4. Interface with other International organizations:

Dogan Paktunc gave a one-full day modular course entitled "Environmental and Process Mineralogy" as part of the Short Course "*Geoenvironmental Modelling of Ore Deposits*" organized jointly by the University of Ottawa and Laurentian University, Ottawa, on the 18th February 2010. Over 100 professionals and graduate students representing 30 organizations and 16 universities attended the course.

For the third year now, Isabelle Memmi was a member of the organising committee and staff member of the Erasmus Intensive Program: "*Materials and patrimony: Stone, glass ceramics and concrete durability and conservation*" which was held in January 2010 at the University PARIS-EST Marne la Vallée.

Megan Becker was the technical consultant for the Minerals Engineering International "*Process Mineralogy 10*" Conference held in Cape Town, from 10-12 November. Over 100 delegates attended the conference. Megan Becker is the special issue advisor for the proceedings that will be published as a special issue in the Elsevier *Minerals Engineering* Journal. Megan Becker also organized a day trip for conference visitors to view the tomography facilities (X-ray CT, PEPT) in the Western Cape Winelands, in South Africa on 8th November, just prior to the conference. The day trip was hosted under the Minerals to Metals Initiative (University of Cape Town) and CAM.

IMA 2010

The 20th General Meeting of the International Mineralogical Association was held in Budapest, Hungary (21-27 August 2010). During the course of the meeting:

Dogan Paktunc and Johan de Villiers organized and chaired the session: "*Geo-metallurgy and Process Mineralogy*".

Dogan Paktunc and David Vaughan organized and chaired the session: "*Mineralogy of mine wastes and contaminated soil*".

Isabella Memmi and Corina Ionescu organized and chaired the session: "*Composition, technology and provenance of archaeological artifacts*". The session included ~49 oral, and poster presentations. Subsequently to the conference, the Editorial Board of the European Journal of Mineralogy has agreed to the publication of a special issue on "*Mineralogical sciences and Archaeology*", containing 12 papers chosen from oral and poster presentations. Isabella Memmi and Corina Ionescu will be the guest editors, and Uli Schussler the associate editor.

Eric Pirard, A. Lüttge and G. Calas organised and chaired the session: "*Applied Mineralogy – Materials Science*". The session included ~60 oral and poster presentations.

Eric Pirard also organised a Short Course on "*Quantitative Image Analysis of Minerals and Rocks*" in between the IMA2010 and the IAMG2010 international conferences, both held at the same venue. The course was lectured by Eric Pirard (Université de Liège, Belgium) and Patrick Launeau (Université de Nantes, France) and held under the auspices of three scientific societies and commissions:

- Commission on Applied Mineralogy (IMA-CAM)
- International Association for Mathematical Geology (IAMG)
- International Association for Stereology and Image Analysis (ISS)



Figure 1: Course participants at the *Quantitative Image Analysis of Minerals and Rocks Short Course*. There were 14 participants from 9 different countries represented.

ICAM 2011

The next ICAM meeting will be held 1-5 August 2011 in Trondheim, Norway. Maarten Broekmans who is CAM's sub-commission chair on building materials will serve as the chair of the scientific committee and editor in chief. The official congress website is located at: www.icam2011.org. Altogether ~ 180 abstracts from over 40 countries worldwide were submitted by the final deadline on 15 November 2010. The committee has also received written interest of formal sponsorship from several companies, although the final agreements have yet to be signed.

Several workshops are scheduled to be held associated with the conference, including the “MSA Short Course on *Applied Mineralogy of Cement and Concrete*” sponsored by the Mineralogical Society of America and Geochemical Society, and course notes will be published in Reviews in Mineralogy and Geochemistry-series (www.minsocam.org/MSA/RIM).

5. Chief accomplishments in 2009:

New Appointments:

Dogan Paktunc stepped down from his position as Chair of CAM. Eric Pirard (past V/Chair) has taken over the position of Chair of CAM. Maarten Broekmans has been nominated as the new V/Chair (still to be approved by IMA).

Journals and Books

Eric Pirard (CAM Chair) and Jan Elsen (Belgium National Rep) contributed to the co-authoring of several chapters of the book “*Advanced Characterization of Industrial Minerals*” which was published by the European Mineralogical Union, and edited by G. Christidis in late 2010.

- Hart, J., Y. Zhu, and E. Pirard. *Particle. Size and Shape Characterisation - Current Technology and Practice* (48 pp).
- Pirard, E. and P. Sardini. *Image analysis for advanced characterization of industrial minerals and geomaterials* (52 pp).
- J. Elsen, G. Mertens and R. Snellings: *Portland cement and other calcareous hydraulic binders: history, production and mineralogy*.

The publication of the ISA2008 Proceedings, edited by Isabella Memmi is due for publication as a Springer Verlag e-book next December.

Other:

The CAM draft terms of reference (written by Dogan Paktunc) was officially approved by the IMA council.

6. Chief Problem Encountered in 2010:

The unavailability of a functional website has continued to create difficulties for CAM to achieve its mission, and is an area under discussion as a task for 2011.

The choice of national representatives can also be frustrating, since the national representatives do not necessarily have an interest in the CAM activities, but have rather been appointed by their local mineralogical society and the IMA. This situation is not always conducive for CAM to extend their activities and influence beyond the individual activities of its committee members.

7. Work plan for 2011 and beyond:

The creation of a new and interactive, up to date website is an area of further discussion. However, it has been recognised that in order to make the website sustainable, there needs to be some sponsorship.

The creation of a WIKI site on applied mineralogy is also an area that has been discussed at length by CAM, and it is intended that this continue.

Dee Bradshaw is a member of the organising committee of “Geomet 2011”, organised by the Australian Institute of Mining and Metallurgy, 6-7 September, Brisbane, Australia.

Other

8. National Representatives:

Austria - Dr. V. Kahlenberg
Belgium - Prof. Jan Elsen
Bulgaria - Thomas Kerestedjian*
Canada - Dr. William Petruk
Denmark - Dr. Tonci Balic-Zunic
Egypt - Professor Mohamed A. Mandour
Finland - Dr. Kari Kojonen
France - Dr. Georges Calas
Germany - Prof. Dr. Robert B. Heimann
India - Dr. J. N. Bhadra Chaudhri
Italy - Maria Franca Brigatti
Japan – Prof. Kazumasa Sugiyama*
Netherlands - Dr. T.G. Nijland

New Zealand - Dr. J. L. Mauk
Romania - Dr. Gheorghe Damian
Russia - Professor V. M. Izoitko
South Africa - Dr D. Chetty
Spain - Professor E. Galan
Sweden - Prof. Ulf Halenius
Switzerland - Prof. Bernard Grobéty
United Kingdom - Dr. John F. W. Bowles
United States - H. Catherine W. Skinner

* New national representatives.