



International Mineralogical Association  
Commission on Applied Mineralogy  
[www.ima-mineralogy.org](http://www.ima-mineralogy.org)

**2009 Annual Report**

**1. Title of Commission:**

Commission on Applied Mineralogy (CAM)

Current Officers:

Chairman: Dogan Paktunc

Vice-Chairman: Eric Pirard

Secretary: Megan Becker

Past-Chair: Richard Hagni

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 2009:**

No business meetings were held in 2009. The next business meeting is scheduled to take place in 2010 at the IMA in Budapest.

### **4. Interface with other International organizations:**

Dogan Paktunc organized and chaired a special session on the geochemical aspects of mine wastes during 24th International Applied Geochemistry Symposium (IAGS 2009) in Fredericton, Canada.

Isabella Memme was the convenor, during the national meeting of Italian Federation of Earth Sciences, of the session “Geoscience in the characterization of ancient ceramic, glass and metal artefacts”.

Isabelle Memme 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 2009 at the University PARIS-EST Marne la Vallée.

Maarten Broekmans was a member of the Scientific Committee of the 12th EMABM, hosted 15-19 September 2009 in Dortmund/DE.

### IMA 2010

CAM is involved in the organization of the following sessions during the 20<sup>th</sup> General Meeting of IMA (IMA2010) in Budapest:

1) *Ceramics and advanced materials including glasses* (Convenors: Hans-Joachim KLEEBE, Pavol ŠAJGALÍK, Aleksander REČNIK)

2) *Archaeometry* (general session): Composition, technology and provenance of archaeological artifacts (Convenors: Corina IONESCU, Isabella MEMMI-TURBANTI, Cristina BELLELLI)

3) *Mineralogy of mine wastes and contaminated soil* (co-organized with IMA Working Group on Environmental Mineralogy and Geochemistry - Convenors: Dogan PAKTUNC and David VAUGHAN)

4) *Biominerals and biomaterials*: The interface between geosciences and life sciences (Convenors: Robert B. HEIMANN, Jaroslav ŠESTÁK, Eugenia VALSAMI-JONES)

Eric Pirard (CAM) is organizing a post-congress short course entitled "Quantitative Image Analysis of Minerals and Rocks" to be held 28-29 August 2010.

## ICAM 2011

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 ([www.icam2011.org](http://www.icam2011.org)) was launched and first official circular for ICAM 2011 was distributed in November 2009. The Geological Survey of Norway has also signed a Memorandum of Understanding with the ICAM council (Ying Gu) and has hired a local PCO. Conference venue has also been arranged.

ICAM will also host pre-congress workshops. The short course proposed by Broekmans and approved by the MSA, will comprise a 2-day workshop titled "Applied mineralogy of cement and concrete". Herbert Pöllmann has agreed to be the co-convener. Short course notes to be published in Reviews in Mineralogy and Geochemistry series. Further information available at [www.minsocam.org/MSA/SC/#Cement](http://www.minsocam.org/MSA/SC/#Cement). Post-ICAM conference excursion destinations (~4) also to be selected by scientific committee. The coordinator for the excursions has yet to be assigned.

## **5. Chief accomplishments in 2009:**

### New Appointments:

The position of secretary has been filled by Dr Megan Becker from the Centre for Minerals Research at the University of Cape Town. CAM has also established a new chair in geometallurgy which has been filled by Professor Dee Bradshaw from the Julius Kruttschnitt Mineral Research Centre at the University of Queensland in Australia.

### Journals and Books

Isabelle Memme continued to manage the publication of the ISA2008 Proceedings. The revision procedure is nearly complete and the e-book will be published in 2010, by Springer Publishing Company.

Isabelle Memme is one of the Editors in Chief of the new Journal "Archaeological and Anthropological Sciences". The journal (<http://www.springer.com/earth+sciences/journal/12520>) is published under the auspices of the German, Greek and Italian Societies of Archaeometry.

Maarten Broekmans is the team leader for the updated global photo atlas/database on potentially alkali-reactive rocks, and alkali-leaching as part of the RILEM TC-219 ACS (Alkali-aggregate

reactions in Concrete Structures ([www.rilem.net](http://www.rilem.net)). The atlas is to be prepared in collaboration with Fernandes from Portugal.

Maarten Broekmans is the Associate Editor of the Elsevier journal "Materials Characterization". He is also the Associate Editor of "Industrial Minerals of Norway", to be published by NGU at 10th ICAM 2011. He is also the Guest Editor for "13th ICAAR 2008 Special Issue" in Cement and Concrete Research which is scheduled for publication in February 2010.

#### **6. Chief Problem Encountered in 2009:**

The list of National Representatives requires an update. Since the national representatives are designated by the member societies of IMA, the commission has no control over the list which limits CAM's outreach activities in promoting Applied Mineralogy in some of the member countries.

Unavailability of a functional website has continued to create difficulties for communications and membership activities.

#### **7. Workplan for 2010 and beyond:**

Dogan Paktunc (CAM) will contribute to the process and environmental mineralogy module of the short course on Geoenvironmental Modeling of Ore Deposits to be held on Feb 13-20, 2010 in Ottawa.

Megan Becker is the consultant for the Minerals Engineering (MEI) conference "Process Mineralogy 10" to be held in Cape Town, 10-12 November 2010.

Maarten Broekmans is the Editor-in-Chief for the reference work "Comprehensive Materials Characterization" for Elsevier, comprising 14 volumes (8400 pages). Publication scheduled for 2013, starting in January 2010.

#### Other

With the establishment of a new subcommission on geometallurgy, CAM plans to lead and coordinate the development of reference and standard materials for quantitative mineralogy and geometallurgy. With the appointment of two new members onto the committee who are both based in the southern hemisphere, CAM also intends to try and extend its influence and activities

into Australia and South Africa where geometallurgy and process mineralogy are thriving in collaboration with the mining and mineral processing industries. Dee Bradshaw and Megan Becker run a course in process mineralogy for the mining industry (23-27 November 2009) hosted by the University of Cape Town and would like to incorporate this into the activities of CAM.

## **8. National Representatives:**

Austria - Dr. V. Kahlenberg  
Belgium - Prof. Jan Elsen  
Bulgaria - Dr. Ivan Dontchev  
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. Tadato Mizota  
Netherlands - Dr. T.G. Nijland  
New Zealand - Dr. J. L. Mauk  
Romania - Dr. Gheorghe Damian  
Russia - Professor V. M. Bzoitko  
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