

Annex of the IMA report for 2009 to IUGS Report of IMA Commissions and Working groups

http://www.ima-mineralogy.org/download/IUGSreports/2009report/IMA2009_ComWg-Rpt.pdf

List of IMA officers of Commissions and Working groups (August 2010)

Commissions

1 - Commission on Applied Mineralogy (CAM)

Chairman: Dogan Paktunc

Vice-Chairman: Eric Pirard

Secretary: Megan Becker (new)

Past-Chair: Richard Hagni

Sub-commission Chair (Building Materials): Maarten Broekmans

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

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

Sub-commission Chair (Metallurgy and Quantitative Mineralogy): Dee Bradshaw (new)

2 - Commission on Mineral Growth and Interface Processes (CMGIP)

Chair: Katsuo Tsukamoto

Vice-Chairman: Andreas Luttge

Secretary: Jeanne Paquette

3 - Commission on Gem Materials (CGM)

Chair: Lee Groat

Vice-Chairman: Wolfgang Hofmeister (new)

Secretary: to be named

4 - Commission on Museums

Chair: Lydie Touret

Vice-Chairman:

Secretary: Peter Davidson (new)

5 - Commission on New Minerals, Nomenclature and Classification (CNMNC)

Chair : Peter (Pete) A. Williams

Vice-chair (changes in existing nomenclature): Frédéric Hatert

Vice-chair (general classification matters) : Marco Pasero

Secretary: Stuart J. Mills

6 - Commission on Ore Mineralogy

Chair: Nigel J. Cook

Vice-Chairman: Kari K. Kojonen

Secretary: Federica Zaccarini

7 - Commission on Physics of Minerals

Chair: Eiji Ohtani

Vice-Chairman: Daniel Neuville

Secretary: Susan Schorr

Working groups

8 - Working Group on Inclusions in Minerals

Chairman: Dr. Sergey Smirnov

Secretary: Prof. Pei Ni

9 - Working Group on Mineral Equilibria

Chair: Alexei L. Perchuk (new)

Vice-Chairman: Secretary: Valentina G. Butvina (new)

10 - Working Group on Environmental Mineralogy and Geochemistry (WGEMG)

Chair: David Vaughan

Vice-Chairman: Tom Sato

Secretary: Anne JB Thompson

11 - Working Group on Solid Earth Composition and Evolution

Chair: Andrew C. Kerr (new)

Vice-Chairman: Pat Castillo (new)

Secretary: David Peate (new)

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¹ The 2009 report was not requested to the Working Group on Solid Earth Composition and Evolution (WG-SECE)

IMA
Commission on Applied Mineralogy
(CAM)
2009 Annual Report to IUGS

<http://www.ima-mineralogy.org/com-wg/CAM/CAM.html>

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 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 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 20th 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) 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-convenor. Short course notes to be published in Reviews in Mineralogy and Geochemistry series. Further information available at 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)). 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

IMA
Commission on Museums
(CM)
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<http://www.ima-mineralogy.org/com-wg/CM/CM.html>

17.8.2010

Since the meeting in IMA meeting in Kobe, Japan 2006 the Commission has:

1. Held the Mineralogy and Museums conference in Golden Colorado, September 2008. There were insufficient National delegates to hold a formal commission meeting at this conference.
2. Held Ad hoc meetings have been held in conjunction with the Denver, USA; Tucson, USA and Munich, Germany shows.
3. Has received a detailed proposal to host the Mineralogy and Museums conference in Germany in 2012. This will be ratified in Budapest at the IMA General meeting. The Commission Delegate from Japan has indicated that Japan may be interested in hosting a Mineralogy and Museums conference in 2016.
4. The commission will sponsor a session on Mineralogy in Museums at the General meeting in Budapest.
5. The CATALOGUE OF TYPE MINERAL SPECIMENS (CTMS) requires further updates to the website.

The Dermot Henry will be standing down as Commission secretary at Budapest General meeting but will remain the Delegate for Australia.

Dermot Henry
Museum Victoria, Australia

IMA
Commission in New Minerals, Nomenclature and Classification
(CNMNC)
2009 Annual Report to IUGS

New address: <http://pubsites.uws.edu.au/ima-cnmnc/>
<http://www.ima-mineralogy.org/com-wg/CNMNC/1CNMNCpages/1CNMNC.html>

Current Officers

Chair : Peter (Pete) A. Williams
Vice-chair (changes in existing nomenclature): Frédéric Hatert
Vice-chair (general classification matters) : Marco Pasero
Secretary: Stuart J. Mills

12 December 2009

Corresponding member in the Council: Joël Grice
(Prepared by the Secretary, Stuart Mills)

1. COMMISSION ON NEW MINERALS, NOMENCLATURE AND CLASSIFICATION

Officers

Chairman: Peter Williams (Sydney, Australia)
Vice-Chairmen: Frédéric Hatert (Liège, Belgium); Marco Pasero (Pisa, Italy).
Secretary: Stuart Mills (Vancouver, Canada)

2. OVERALL OBJECTIVES

This commission (CNMNC) was established in 1959 (under the former title of Commission on New Minerals and Mineral Names, or CNMMN) to deal with all nomenclature matters in mineralogy. Its main roles are to ensure that strict procedures are followed before new mineral species can be established and before redefinitions and changes to nomenclature can be applied. The CNMNC also coordinates the procedures for classification of minerals and groups.

3. ORGANISATION

Officers for 2009

Officers are listed above and the full membership of CNMNC is given in 8 (below).

Business meetings

The CNMNC holds its business meetings every two years, when its members participate in IMA General Meetings and Mineralogy & Museums Conferences, each of which are held every four years. The CNMNC last met in Golden, Colorado in September 2008. The next meeting will be during the IMA General Meeting in 2010.

Main activities

The CNMNC partitions its workload amongst the four officers. The Chairman prepares the new mineral proposals, the Vice-Chairmen handle proposed changes to existing nomenclature (discreditations and redefinitions) and classification issues (including groups), and the Secretary coordinates the subcommittees created to examine the nomenclature of mineral groups. The 34 voting Members of the CNMNC represent national mineralogical organisations affiliated with the

IMA. The members evaluate all nomenclature proposals (new minerals, changes in existing minerals, mineral groups) and cast their votes on a monthly basis for the new mineral proposals and as they come for the other proposals.

Financial support

The distribution of proposals and the subsequent rounds of comments and voting are carried out solely via the internet. The IMA covers the Chairman's costs for office supplies, while the costs of Members' emailing and internet time are borne by their respective institutions.

4. INVOLVEMENT WITH IMA AND INTERNATIONAL PROJECTS

Vice Chairman Frédéric Hatert is currently a member of the IMA-OC (Outreach Committee). In collaboration with Bob Downs, he is involved in the updating of the RRUFF database of minerals.

5. CHIEF ACCOMPLISHMENTS IN 2009

Activities

By December 08 2009, the CNMNC will have dealt with 91 new-mineral proposals, and most likely the number will end up being ~100 by the end of the year. 2009 has seen a substantial increase in the number of new mineral submissions as well as nomenclature proposals over previous years (70 new mineral proposals in 2008; 66 in 2007; 63 in 2006).

Members will also have deliberated on and approved seven proposals involving mineral nomenclature revisions and are currently deliberating on another. 2009 has also seen the approval of a mineral group hierarchy which has been debated on numerous occasions over the past decade. A proposal on the release of mineral names is currently being dealt with.

Seven CNMNC subcommittees were operational during 2009:

1. Pyrochlore (Chairman: Daniel Atencio, Brazil)
2. Tourmaline (Chairman: Milan Novák, Czech Republic)
3. Alunite (Chairman: Peter Bayliss, Australia)
4. Amphibole (Chairpersons, Frank Hawthorne, Canada and Roberta Oberti, Italy)
6. Lovozerite (Chairman: Igor Pekov, Russia)
7. Apatite (Chairman: Marco Pasero, Italy)
8. Hydrotalcite (Chairman: Stuart Mills, Canada)

New members

The Commission added substantially to its membership through an approach by the Secretary to the Mineralogical Societies who were unrepresented. This resulted in new Members from Argentina, Bulgaria, Greece, India, Ukraine and Uzbekistan. In many cases these are the first delegates on the CNMNC from these countries in CNMNC history.

Outreach

The ex-Chairman and current Secretary regularly participate in discussion on minerals and their nomenclature in the Message Board of the website www.mindat.org, a forum aimed at collectors and amateur mineralogists, but also used by professionals to discuss mineralogical issues.

Updated versions of the official IMA–CNMNC list of mineral names were uploaded onto the Commission's website, as well as newer versions of valid unnamed minerals, invalid unnamed minerals, and references for unnamed minerals.

Also published on the CNMNC website was a complete list of all CNMNC decisions made in 2008, as well as monthly summaries of the most recent new minerals approved by the Commission.

Technical meetings

No technical meetings were held in 2009.

Publications

Several papers dealing with decisions of the CNMNC were submitted for publication in the scientific literature during the year:

Grew, E., Hålenius, U., Pasero, M. & Barbier, J. (2008) Recommended nomenclature for the sapphirine and surinamite groups (sapphirine supergroup). *Mineralogical Magazine*, 72, 839–876.

Hatert, F. & Burke, E.A.J. (2008) The IMA-CNMNC dominant-constituent rule revisited and extended. *Canadian Mineralogist*, 46, 717–728.

Mills, S. J., Hatert, F., Nickel, E. H. & Ferraris, G. (2009) The standardisation of mineral group hierarchies: application to recent nomenclature proposals. *European Journal of Mineralogy*, 21(5), 1073–1080.

Pekov, I. V., Krivovichev, S. V., Zolotarev, A. A., Yakovenchuk, V. N., Armbruster, T. & Pakhomovsky, Y. A. (2009) Crystal chemistry and nomenclature of the lovozerite group. *European Journal of Mineralogy*, 21(5), 1061–1071.

The reports of the alunite and tourmaline committees are due to be published shortly.

6. PROBLEMS ENCOUNTERED IN 2008

Generally the work of the Commission proceeded smoothly in 2009. However, the office-bearers continue to be concerned about the low participation rate of some Commission Members. This seems to be a continuing problem partly related to the heavy work load of the Commission. This problem was partly solved by recruiting new enthusiastic Members.

7. WORKPLAN FOR 2010

Activities

It is anticipated that the number of new mineral proposals, nomenclature revisions and discreditations will continue to be high. New subcommittees are being established to replace the ones that have completed their work and several are near completion. It continues to be a very active period in mineralogical sciences.

8. OFFICERS AND NATIONAL REPRESENTATIVES

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**IMA
Commission on Ore Mineralogy
(COM)
2009 Annual Report to IUGS**

<http://www.gsf.fi/domestic/com/ima-com.htm>

<http://www.ima-mineralogy.org/com-wg/COM/COM.html>

10th December 2009

Corresponding member in the Council: Kari Kojonen

This report covers aspects of IMA-COM activities since the date of the last annual report (November 2008).

COM Officials 2006-2010

The following nominations of officials to serve COM in the period 2006-2010 were accepted at the IMA-COM Business meeting held during the IMA meeting in Kobe, Japan, July 2006:

Chairman: Nigel J. Cook nigelc@nhm.uio.no

Vice-Chairman: Kari K. Kojonen kari.kojonen@gsf.fi

Federica Zaccarini was appointed as COM Secretary during 2007;

Federica.Zaccarini@unileoben.ac.at

Objectives and activities of COM

The Commission on Ore Mineralogy of the International Mineralogical Association was set up in 1962 to serve the interests of ore mineralogists in universities, research institutions, museums, and the minerals industry across the world. Our goals are to promote ore mineralogy within the scientific community, to train fellow members in investigative skills through a series of short courses, and to support the activities of other IMA commissions by providing advice and expert opinion on issues related to our fields of research. Through its regular short courses, regional meetings, scientific sessions, other symposia and field excursions, as well as its website, COM offers a platform to ore mineralogists to share their knowledge with others, exchange information, and to speak with a collective voice on issues that affect our branch of science. As one of the commissions of IMA, the COM supports the goals of international cooperation and collaborative research in pure and applied mineralogy.

Financial support

COM has no direct financial support for its activities. Limited financing for meeting participation has been possible via association with other groups, e.g., Applied Mineralogy Group of the Mineralogical Society (U.K.).

Interface with IMA activities and other international projects

COM participates in all major IMA events and interacts with other commissions, particularly CNMMN and CAM. COM is also enthusiastically involved in International Geoscience Project

(IGCP) 486, with which it co-sponsored a session at the 32nd International Geological Congress (IGC). IMA-COM worked with the organizing committee of the 33rd IGC (2008) in the preparation of three scientific sessions at the conference. Presently COM is working with the committee of the 20th General meeting of the International Mineralogical Association in the organization on three scientific sessions and one short course.

COM activities in 2009

The last business meeting took place during the 33rd IGC in Oslo. Minutes will be available on the commission webpage shortly: <http://www.gsf.fi/domestic/com/ima-com>.

During this meeting the decision to update the list of national representative was taken and also to nominate Dr. Louis Cabri as an Honorary Member of the COM. The list of the national representative has been updated on February 2009. (see the appendix at the end of this report)

COM activity in 2009 has focussed on the organization of the following scientific sessions and short course for the 20th General meeting of the International Mineralogical Association, 21-27 August 2010, Budapest, Hungary.

Scientific sessions:

1) EG51: Crustal fluids and gold

Convenors: Hartwig FRIMMEL, Georges BEAUDOIN, Pasi EILU

Sponsored by: IMA Commission on Ore Mineralogy (IMA-COM)

Brief description of the session:

Variable types of gold deposits at different crustal levels: implications on gold transport and recycling by different crustal fluids.

Details:

Fluids in the continental crust are capable of concentrating gold into ore bodies in a wide variety of settings, ranging from intrusion-related, disseminated porphyry Cu-Au (-Mo) associations, epithermal (low- and high-S), volcanogenic massive sulfide, Carlin, to orogenic shear zone-hosted deposits. In combination and together with the Archaean to Palaeoproterozoic palaeoplacer deposits that were derived from primary shallow crustal gold sources, they account for more than 90 % of all known gold. Considerable efforts have been made in characterizing the various kinds of crustal gold deposits in terms of their mineralogy, mineral chemistry as well as their fluid inclusion characteristics. Nonetheless the ultimate questions of the source of the gold and the source of the gold-transporting fluids remain without definite answers. The extent to which orogenic gold deposits formed in response to magmatic activity and/or metamorphic fluid circulation remains ambiguous as does the extent to which gold has been continuously recycled by crustal fluids over the past three billion years or periodically added to the continental crust from juvenile sources. A focus specifically on epithermal gold seems most appropriate at this meeting, considering that the region around Rosia Montana in west-central Romania, the previous Hungarian Verespatak, has been the most important gold-producing province in Europe for more than 2000 years. Today one of Europe's largest known gold deposits is located in Chelopech, west-central Bulgaria. Both are epithermal deposits (low- and high-sulphidation, respectively) and highlight the enormous significance of crustal fluids, here in Upper Cretaceous to Tertiary volcanic arcs, for the concentration of gold into ore bodies.

2) EG52: Platinum group minerals in the new millenium

Convenors: Andrew M. McDONALD, Aberra MOGESSIE, Oskar THALHAMMER

Sponsored by: IMA Commission on Ore Mineralogy (IMA-COM)

Brief description of the session:

A session dedicated to expanding our current state of knowledge on a variety of topics relating to the crystal chemistry, synthesis, geochemical character, geological occurrence and beneficiation of platinum group minerals.

Details:

Platinum group minerals, the important reservoirs of platinum-group elements at the earth's surface, are represented by rather limited number of species (<110). Given the high demand for PGE from the technology sector owing to their application as catalysts, biomedical tools (e.g., anti-cancer drugs) resistance to corrosion, high electrical conductivity, etc., the interest in better understanding the chemistry, mineralogy and geological occurrences of these minerals has been growing at an exponential rate. While it has been more than 250 years following the discovery of the first PGM (platinum, from the Choco district, Columbia) and scientists have come to better understand certain facets regarding the formation and redistribution of PGE in mafic to ultramafic environments in the form of PGM, a tremendous number of questions still remain unresolved. For example, is the occurrence of PGM nanoparticles entirely responsible for the incredible variety of PGM that may be found growing as submillimetric aggregates in chromites from S-poor, ultramafic environments? What are the mechanisms by which PGM in sulphide-saturated systems crystallize? How does hydrothermal alteration impact on the chemistry of PGM that develop? With so many of the known PGM being poorly characterized and lacking crystal-structure data, how diverse is this group? As we still know little regarding chemical variations that occur in PGM solid solutions, how does this impact on defining the conditions under which synthetic PGM are generated? Do all PGM necessarily behave under the same beneficiation processes? This session is broadly directed at all researchers interested in PGM from a large number of perspectives. We invite perspective participants who are working on the chemistry, mineralogy, synthesis and beneficiation of platinum group minerals, along with those studying the myriad of geological occurrences of these minerals (mafic-ultramafic, hydrothermal, alteration) to consider contributing presentations to the session. Given that world demand for PGE still remains high, that mechanisms relating to the manner in which PGE are fractionated and redistributed from the mantle to the crust is still lacking, and that knowledge of the types and variety of PGM that accommodate PGE remains poor, we anticipate considerable interest in this session. It should also be clearly stated that the overriding goal of this session is to provide a forum that will stimulate discussion, debate and a broader appreciation for the complexities associated with PGM.

3) GP81: Volcanoes: The mineral factory**Short course**

WSC5: Mineralogy, geochemistry and ore deposits of platinum group elements (PGE)

Details:

Date: August 28-September 1 (post-conference)

Venue: Dept. of Applied Geological Sciences and Geophysics, University of Leoben (Austria)

Sponsors: IMA-COM, NAWI-Graz, University Centre of Applied Geosciences Styria (UZAG)

Contact person: Federica Zaccarini (University of Leoben, Federica.Zaccarini@unileoben.ac.at)

Convenors: Aberra Mogessie, Christoph Hauzenberger, Oskar A.R. Thalhammer, Federica Zaccarini, Ferenc Molnár,

Invited speakers: R. Bakker, C. Ballhaus, L. Cabri*, N. Cook*, G. Garuti, C. Hauzenberger, M. Ohnenstetter*, A. McDonald, T. Meisel, A. Mogessie, F. Molnár, M. Tredoux, O. Thalhammer, F. Zaccarini (* not yet confirmed)

Length (days): 4

Brief summary: The course will include:

- Description of the most important PGE deposits, their genesis, mineralogy and geochemistry
- Practical sessions: optical microscopy, electron microprobe, Raman spectroscopy
- Field trip to the mafic-ultramafic massif of Kraubath

No. of sessions: to be announced later

No. of participants: maximum 25

Web: <http://institute.unileoben.ac.at/mineralogie/IMA/Home.html>

COM's website is hosted at the Geological Survey of Finland; <http://www.gsf.fi/domestic/com/ima-com.htm>. The website provides a central source of information on COM activities, with a

mission statement, a brief history of the commission, list of national representatives, details of past and future activities and publication reports. During 2009, the website has been updated. Regarding COM website development, the person responsible, Kari Kojonen, during the Oslo meeting, explained that the COM virtual ore microscopy is still under construction. Andy McDonald, Hassan Helmy and other national representatives present at the meeting, offered their help for the development of this important aspect of the COM web site. Kari Kojonen will be sending instructions to all the national representatives regarding format and accompanying descriptions, as soon as possible.

Report of COM Selenide-Tellurides

A draft report of the Selenide-Telluride' sub-commission will be prepared for the next Business Meeting of IMA-COM (Budapest, 2010).

Summary of main activities in the period 2003-2009

Business meetings

COM holds a Business Meeting every two years, coinciding with the International Geological congress (Florence 2004, Oslo 2008) and the General Meeting of the International Mineralogical Association (Kobe, 2006).

COM website

COM created an independent website hosted at the Geological Survey of Finland.

Scientific sessions at international meetings and short courses

(A) VGP 30, EGS-AGU-EUG Joint Assembly, in Nice, France, 7th-11th April 2003.

Scientific session 'Gold and Platinum Group Minerals: from experimental mineralogy and microanalysis to deposit Modelling'.

(B) Scientific sessions at the 32nd International Geological Congress, Florence, August 2004
COM organised three scientific sessions for the 32nd IGC, Florence, Italy, 20-28 August 2004.

'Gold deposits in diverse geological environments' (co-proposed by COM and IAGOD). This symposium session received 108 contributions and was held as an all-day session on Saturday 21st August.

'Telluride and selenide minerals related to gold and platinum group element deposits', co-sponsored by IGCP project 486. The session received 52 contributions and was held as an all-day session on Sunday 22nd August.

'Mineral Deposits' session on 'Conventional and unconventional platinum group mineral deposits'. The session was held on Friday 27th August.

(C) Joint meeting of IMA-COM and the Applied Mineralogy Group of the Mineralogical Society (U.K.), 7th January 2005

A session "Platinum metals in the urban environment - should we worry?" formed part of the larger meeting of the Mineralogical Society of Great Britain and Ireland (6-7th January 2005, Bath, U.K.) with the title "Environmental Mineralogy, Geochemistry and Human Health". COM Chairman Roland K.W. Merkle gave a keynote lecture 'Large scale PGE anomalies in South Africa and possible mechanisms for the release of PGE to the environment'.

(D) Short Course during the 10th International Platinum Symposium, Oulu, Finland, August 2005

A Short course 'Current methods in applied mineralogy of platinum-group element ores and products' was co-sponsored by COM and held during the International Platinum Symposium, Oulu,

Finland (August 6th 2005), organized by Prof. Louis J. Cabri. Five invited speakers delivered the lectures.

(E) Scientific session at 19th General Meeting of the International Mineralogical Association, Kobe, Japan, July 23-28th 2006

Session 16: 'Mineralogy of Ore Deposits'.

(F) Scientific session at 33th Geological congress, Oslo, Norway, August 23-28th 2008

Sessions: MPM 04, Platinum Group Minerals (2 invited speakers, 12 talks and 4 posters), MRD 09 (8 talks and 5 posters) and MPM 03 Metals in the Earth: from vital resource to environmental hazards (jointly with CAM). Conveners: David Vaughan, Dogan Pactunc, Kari Kojonen.

(G) Field workshop at Espoo (Finland), 26-31 August 2007

'The Au–Ag telluride–selenide deposits' field workshop was organized in Espoo, Finland, from 26 to 31 of August 2007. A volume of extended abstracts (Geological Survey of Finland Guide number 53) Au–Ag telluride–selenide deposits (Eds: K.K. Kojonen, N.J. Cook and J. Ojala) was published by the Geological Survey of Finland.

Short courses

During the 1990's, IMA-COM held several short courses in advanced ore mineralogy. The last such course was held in Finland in 2000. The difficulty of ensuring appropriate funding for future short courses has led to several attempts in the past few years to be abandoned. Two COM short course venues were proposed in 2006 (Nanjing, Peoples Republic of China; Kharagpur, India) for 2008/2009, but there has, regrettably, been little progress during 2008 to develop business plans for the first of these.

Reports of COM sub-commissions

The sulphosalt sub-commission of COM presented their full-length report.

Involvement in IGCP project

A number of COM 'members' joined the vice-chairman and secretary in proposing the IGCP project "Au-Ag-telluride-selenide deposits in Europe and in developing countries" (IGCP 486; 2003-2008).

Other activities/initiatives

IMA-COM has attempted to take a more active role in ensuring quality control of reported ore mineralogical data. The IMA-COM President Roland Merkle (2002-2006) made a call for COM 'members' to become involved in international initiatives of the International Standards Organisation (ISO) aimed at establishing guidelines for standardisation of microbeam data acquisition routines.

IMA-COM has called for valuable – and often irreplaceable collections of polished ore mineral specimens to be deposited in museums and mineralogical institutions to be preserved, and catalogued for future researchers. Discussion among various institutions has been initiated on the optimal way to ensure a systematic and common approach.

The initiative of the COM to organize a standard set of ore minerals abbreviation was briefly discussed. The chairman explained that this is a difficult target and suggested to use the abbreviations recommended by the Canadian Mineralogist.

COM has also continued to promote 'Virtual Ore Mineralogy', in which a series of descriptions of ore minerals with optical images will be available free of charge on the IMA-COM website.

Workplan for 2009, with perspectives for 2010-2012

In the next term (2009-2012), COM will continue to organize scientific sessions within large international scientific meetings, such as the IGC, Goldschmidt meeting and IMA General Meetings. COM will redouble its efforts to organise short courses where they have not been held previously (particularly in developing countries).

COM Short courses

During the business meeting of Oslo, was discussed the possibility to organize the following short courses:

1) Nigel Cook reported on plans to hold a COM short course in India in November 2009. A tentative schedule has been agreed and list of proposed guest lecturers and budget is now in preparation.

2) COM short course in Leoben (Austria) dealing with mineralogy, geochemistry and ore deposits of Platinum group elements (date: from 28th August to 1st September 2010 - after the 20th IMA General Meeting of Budapest) organized by Abera Mogessie, Oskar Thalhammer and Federica Zaccarini. The preliminary program is now available:

Web: <http://institute.unileoben.ac.at/mineralogie/IMA/Home.html>

3) COM workshop hosted Camborne School of Mines, University of Exeter, United Kingdom. Process mineralogy of metalliferous ores: An introduction for geologists. (date 22nd – 25th June 2010). Conveners: Jens Andersen, Rob Fairhurst, Richard Pascoe, Gavyn Rollinson, Maria Boni, Herrington.

Programme and registration information:

<http://tinyurl.com/yekprkn>

J.C.Andersen@exeter.ac.uk

4) The secretary of COM had received the proposals by Prof. Joaquin Proenza (University of Barcelona, Spain) and Prof. Antoni Camprubi i Cano (National University of Mexico) to organize a COM short course on ore minerals in Mexico in 2011, and by Prof. Basilios Tsikouras (University of Patras, Greece) and Dr. Federica Zaccarini (University of Leoben) to organize a COM workshop in Greece on ophiolites with special regard to their industrial and ore minerals (date not yet specified). These proposals will be discussed during the next COM business meeting.

Other projected activities

(1) Reporting by the COM sub-commission on 'selenide and telluride mineralogy' within the period 2006-2010, with final reporting at the 20th IMA General meeting in Budapest, 2010.

(2) Further development of the 'Virtual Ore Mineralogy' website.

(3) A more proactive role in ensuring quality control of reported ore mineralogical data in the future.

(4) Greater emphasis on the preservation of valuable - and often irreplaceable - collections of polished ore mineral specimens, depositing them, ideally in museums and mineralogical institutions. IMA-COM needs to prepare a set of guidelines for wide distribution. Closer contact with the IMA Commission on Museums would appear to be essential.

(5) Following the suggestion of Dr. Louis Cabri, the IMA-COM should promote itself by writing a short article in the journal 'Elements' showcasing its activities.

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Secretary, IMA-COM

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COMMISSION ON ORE MINERALOGY

International Mineralogical Association

<http://www.gsf.fi/domestic/com/ima-com.htm>

List of National Representatives (updated February 2009)

Entries in **RED** are cases where the national mineralogical society has been contacted regarding a new appointment. The 'old' names are retained until such an appointment is formalised.

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IMA Commission on Physics of Minerals (CPM) 2009 Annual report to IUGS

<http://www.ima-mineralogy.org/com-wg/CPM/CPM.html>
Former website: http://www.sbg.ac.at/min/cpm/cpm_index.htm

1st December 2009

Chair: Eiji Ohtani
Vice-Chairman: Daniel Neuville
Secretary: Suzan Schorr

Corresponding member in the Council: Takamitsu Yamanaka

1. Commission of Physics of Minerals

The current officers of the CPM is Eiji Ohtani (ohtani@mail.tains.tohoku.ac.jp) as Chairman, Daniel Neuville (neuville@ipgp.jussieu.fr) as Vice-Chairman and Suzan Schorr (sschorr@uni-leipzig.de) as Secretary. Besides the three Officers, the commission has 9 members.

2. Overall objectives of our commission

The Commission on Physics of Minerals was established for the promotion of the application of modern solid state physics to minerals at low and high temperatures as well as at high pressures and dynamics of the earth and planetary interior by workshop, conferences and publications.

3. Main accomplishments in 2009

(1) CPM played following active roles in international and local meetings during 2008-2009.

CPM organized and convened sessions in the following meetings:

1) Dec. 14-20 2008AGU fall meeting at San Francisco: Eiji Ohtani organizes a session on melt and fluid at high pressure with Hans Mueller, Yanbin Wang, Charles Lesher. Eiji Ohtani makes an invited talk in the sessions of Spin transition in the lower mantle, and he also makes an invited poster in the session of the deep water cycle.

2) Daniel Neuville organized a glass and melt session in 2009AGU Spring meeting at Toronto, May, 2009.

3) E. Ohtani and Y. Fei organized a session on core and core-mantle boundary at SMEC 2009 meeting at FIU. March 29-April 2, Florida, USA.

4) E. Ohtani et al. made invited talk at the SMEC 2009 meeting, Silicon content of the core based on the phase relation and density measurement of solid and molten FeSi and FeNiSi alloys (Invited). SMEC 2009 Study of Matters at Extreme Conditions. March 29-April 2, Florida, USA.

5) CPM organizes two sessions on Physics and Chemistry of Earth's Minerals and one international session on dynamics of the Earth's interior. 2009 at the JpGU (Japan Geoscience union) annual meeting held at Makuhari, Chiba, Japan on 16-21th, May, 2009.

6) E. Ohtani presented an invited talk: E. Ohtani: Compression of silicate and metallic liquids at ultrahigh pressure: their importance in Earth Science (Invited). WDM2009 INTERNATIONAL WORKSHOP on WARM DENSE MATTER. March 15-19 2009, Hakone, Japan

7) E. Ohtani worked as a member of local program committee for AIRAPT 22 meeting held in July 27-30, 2009.

8) E. Ohtani presented an invited talk at 2009 AGU fall meeting: Ohtani et al., Formation of High pressure polymorphs of olivine and pyroxene in shocked meteorites and applications to collision of their parent bodies (Invited). 2009 AGU fall meeting. San Francisco, USA, Dec. 14-18, 2009.

9) E. Ohtani presented an invited talk: Ohtani et al., Distribution of Hydrogen in the Deep Earth and its Role in Earth's dynamics (Invited). 2009 AGU fall meeting. San Francisco, USA, Dec. 14-18, 2009.

(2) Bulletins, News, and Website: Website of CPM is established in 2003 and continuously maintained for communication of the members.

Publication:

1) Special issues: We published the proceedings volume of High Pressure Mineral Physics Seminar-7 (Editors, E. Ohtani, D. Andraut, P. Asimow, L. Stixrude, and Y. Wang) as a special issue of Phys. Earth Planet. Inter., vol. 174, 2009.

2) Xue, Henderson, Giorso organise at the Goldsmith and Henderson and Neuville try to promote an issue on amorphous materials in the American Mineralogist following the discussion in the meeting "Frontier in Mineral Science" in Cambridge and support by the CPM.

4. Work plan for 2010

1) CPM (Ohtani) organized three sessions at 2010 JpGU International symposium to be held in 20-25, May 2010. (1) Don Dingwell, Paul. D. Asimov, and E. Ohtani, organizes a session "Molten Earth" (2) Razvan, Nakajima, Ohtani organized a session "Water in the subduction zone in big mantle wedge" as a JpGU-EGU joint session. (3) Ohtani, Tatsumi, and Hemley organize a session "Deep Carbon Cycle" at 2010JpGU International symposium. 2) CPM (Ohtani) worked a member of the program committee of VGP section of WPGM, and organizes two sessions in VGP section at 2010 WPGM Taipei committee: (1) Lee, Ohtani, Mysen, Lether organize a session "Structure and Properties of Melts and Glasses on the Earth's Surfaces & its Interior". (2) Chen, Kun, Jackson, Irifune, Ohtani organize a session "composition of the Earth's Deep Interior". 3) CPM organizes four sessions at 2010 IMA Budapest meeting. (1) Session ID: AM3 Daniel R. NEUVILLE (IMA-CPM), Grant S. HENDERSON; Title: Structure and properties of silicate glasses and melts: from laboratory to volcanic activities. (2) Razvan Caracas, Jay Bass, Kei Hirose, Mineralogy of the Deep Earth; (3) Gerd Steinle-Neumann, Yingwei Fei, Eiji Ohtani

convene a Session ID: DE1: Planetary Cores; (4) Geiger, Dachs, Tsuchiya organize a session TH131 "Thermodynamic behavior of Earth Materials."

4) R. Morreto, M. Wilke and Neuville organise a session on the glass and melts at the EGU in Vienne

5 List of Officers and National Representatives

The current officers of the CPM is, Eiji Ohtani as Chair

(ohtani@mail.tains.tohoku.ac.jp), Daniel Neuville as Vice-Chairman

(neuville@ipgp.jussieu.fr), and Suzan Schorr (sschorr@uni-leipzig.de) as Secretary.

Besides the three Officers, the commission has 9 members. The addresses for the members are as follows:

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- Daniel NEUVILLE (Vice-Chairman),

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IMA Working Group on Inclusion in Minerals (WGIM) 2009 Annual report to IUGS

<http://www.ima-mineralogy.org/com-wg/WGIM/WGIM.html>

Current officers:

Chairman: Dr. Sergey Smirnov

Secretary: Prof. Pei Ni

Corresponding member in the Council: Ekkehart Tillmanns

In 2009 major task of the WGIM was a preparation to IMA 20th General meeting and 3rd Asian Conference on Current Research on Fluid Inclusions (ACROFI III).

1) WGIM was decided to sponsor organization of Session D45 Fluids in the Earth at the 20th General Meeting of the IMA. Chairman of the WGIM S.Z. Smirnov along with Prof. R.J. Bodnar (Virginia Tech University, USA) and Prof. C. Szabo (Eotvos University, Hungary) has formulated rationale for the Session, discussed the program and proposed invited speakers. The session was announced for the fluid inclusion scientific community.

2) Since September 2009 the preparation of ACROFI III has been started in the Institute of Geology and Mineralogy of the Siberian Branch of Russian Academy of Sciences, Novosibirsk, Russia. This conference was joined with XIV International conference of thermobarogeochemistry, which traditionally was held in Moscow, Russia, in order to attract as much participant as possible. Many well known fluid inclusion researchers from Europe and Asia joined the Scientific Committee of the Conference and participated in formation of the scientific program. General information about the conference is available at the ACROFI III web site <http://acrofi.igm.nsc.ru/> and pre-registration was opened. The conference was announced via the Fluid Inclusion Mailing List. Now preparation includes the accumulation of sponsors, preparation of the field trip and short course.



IMA
Working Group on Mineral Equilibria
(WGME)
2009 Annual report to IUGS

<http://www.ima-mineralogy.org/com-wg/WGME/WGME.html>

Current officers:

Chairman: *Alexei L. Perchuk*

Secretary: *Valentina G. Butvina*

Corresponding member in the Council: Ian Parsons

From the past-chair, Leonid Perchuk

In the course of the EUG Meeting, the WGME annual business meeting was organized. Two new Officers were elected

Chairman: Dr. Alexei L. Perchuk

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Secretary: Valentina G. Butvina

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Prof. Leonid L. Perchuk (former WGME chairman)

Prof. Oleg G. Safonov (former WGME secretary)