



INTERNATIONAL MINERALOGICAL ASSOCIATION [IMA]

IMA 2006 Report to IUGS

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International Mineralogical Association (IMA) Summary of the 2006 IMA report to IUGS

The International Mineralogical Association (IMA) is the only truly international association promoting mineralogy. Its aim is to support intercourse among mineralogists by organizing events, such as meetings, short courses and workshops, and by publishing relevant literature through the scientific activity of its 12 IMA commissions and working groups.

IMA holds its General meeting every 4 years and its business meeting every 2 years. This year, IMA held its 19th General Meeting in Kobe, Japan, July 23-28, which was supported by the National Committee for Mineralogy of the Science Council of Japan. A total of 975 participants were registered from 50 countries, with a total of 874 contributions during 37 sessions, and up to 7 oral sessions running simultaneously. The chairman of the meeting was Takamitsu Yamanaka who as usual became the President of the IMA at the end of the Kobe meeting.

The IMA council now comprises 12 members instead of 11, because a Communication Officer position was created during the Kobe Business Meeting. Later on, Frances Wall was designated by the IMA Council as the first IMA Communication Officer. Besides the President and the Communication Officer, the other 10 Council members elected in Kobe, are Ekkehart Tillmanns and Nicolai Yushkin, first and second Vice-presidents respectively, Robert Downs, Treasurer, Maryse Ohnenstetter, Secretary, Ian Parsons, Past-President, and Joel Grice, Kari Kojonen, Anuhai Lu, Marcello Mellini and Walter Maresch as ordinary councillors. The latter was designated by the Council in early spring to replace Werner Schreyer, a former IMA councillor, who sadly died in February 2006.

The IMA is composed of 38 adhering national mineralogical societies or groups. Seven of them, with the recent addition of the German, Italian and Polish mineralogical societies, have now joined the group of societies publishing "Elements" [<http://www.elementsmagazine.org/>] IMA decisions and news about IMA adhering societies and commissions are reported within Elements every two months, the IMA page being now under the responsibility of the Communication officer. Alternatively, a full list of officials together with latest news can be found at the IMA website [<http://www.ima-mineralogy.org/imanews.html>].

The XXth General Meeting of IMA will take place in Budapest in 2010. The organizing consortium was enlarged in December 2006 by the addition of two more mineralogical societies, and now comprises the mineralogical societies of Austria, Croatia, Czech, Hungary, Romania and Slovakia. Proposals from IMA member societies will be sought during 2007 to organize the 21st General Meeting of IMA in 2014. The following meeting, the 22nd General meeting of IMA, is expected to take place in U.S.A, in 2018.

Following Kobe, the next business meeting will be in Vancouver at the time of the 2008 Goldschmidt Conference. Before that however, the Council will meet during the combined societies "Frontiers in Mineralogy" meeting in Cambridge, England, in June 2007.

In Kobe the decision was taken to merge the Commission on New Minerals and Mineral Names and the Commission on Classification of Minerals in order to increase efficiency in the naming and classification of minerals. The resulting commission is called the Commission on New Minerals, Nomenclature and Classification (CNMNC), and is chaired by E. Burke, with the help of two vice-chairmen instead of one, in addition to the secretary. In the Commission on Applied Mineralogy (CAM), three sub-commissions were created to cover the broad spectrum of fields of interest in this branch: a sub-commission on mineralogy applied to building materials chaired by Maarten Broekmans, a sub-commission on cultural

heritage and archaeological materials, chaired by Isabella Memmi, and a sub-commission on advanced ceramics and glasses, chaired by Hans-Joachim Kleebe. In addition, a position of past-chair of CAM was created for R. Hagni to assure the continuity between past- and present-day activities.

In December, five additional officers were designated by the IMA council to complement the slate of officers of IMA commissions - working groups that was newly elected in Kobe. Major changes are notable in five commissions - working groups, the CAM, the Commission on Mineral Growth and Interface Processes (CMGIP), the CNMNC, the Working Group on Environmental Mineralogy and Geochemistry (WGEMG) and the Working Group on Inclusions in Minerals (WGIM).

All the IMA commissions - working groups sponsored sessions during the Kobe General Meeting of IMA. In addition the WGIM organized the first ACROFI meeting in the Asian area, the Commission on Physics of Minerals (CPM) participated in the Goldschmidt and AGU Fall meetings and the Working Group on Mineral Equilibria (WGME) took part in the EGU meeting. In 2007 and 2008, the IMA Commissions and Working Groups will be involved in 15 meetings, and 10 short courses, schools or workshops.

The IMA-CNMNC continuously provides new publications, available from the IMA-CNMNC website [<http://www.geo.vu.nl/users/ima-cnmmn/>], as mineral nomenclature and classification are revisited. Other publications are produced, such as special volumes following meetings, as for the CPM, and the establishment of catalogues, as for the Commissions on Ore Mineralogy (COM), on Gems Materials (CGM), and on Museums (CM). It appears in 2006, that CNMNC has paid for their results to be published in the *Canadian Mineralogist*. This problem, discussed in the IMA council, will be followed up by W. Maresch who will have to consider the way IMA could publish and publicise (for free) its decisions and products.

In Kobe, the way IMA is funded was discussed. It was agreed that the 15 smallest societies, with less than 25 members, should pay half of what is currently requested, reducing their dues from US\$60 to US\$30 per year. Societies may pay in advance to avoid bank transfer fees. The main IMA expenses are in wire transfers, website development, sponsorships of meeting and recently in helping the IMA-CNMNC.

In Kobe, it was decided to award an annual IMA Medal for Excellence and a medal committee is being formed, chaired by J. Grice. A second committee will be also formed to follow the development of a mineral database within the RRUFF project, led by Bob Downs and George Rossman, with support from Mike Scott, founding President of Apple Computers. Developing standards for the mineral database and link databases via the www are important issues now being investigated within IMA commissions, notably in the CM and CNMNC.

18 December 2006

1 IMA - OBJECTIVES and STRUCTURE

1.1. Objectives

The International Mineralogical Association (IMA), which is affiliated to the International Union of Geological Sciences (IUGS - <http://www.iugs.org>) is the only truly international organisation promoting mineralogy. Since its creation in 1958, the IMA represents mineralogical societies or mineralogical groups which are affiliated to a geological society.

Mineralogy is one of the oldest branches of science and includes both fundamental and applied research. Mineralogy interacts with other geoscience disciplines as geophysics, geochemistry and petrology.

Mineralogy is fundamental to the development of knowledge of the chemistry, mode of formation and age of rocks from the earth. Knowledge of the most inaccessible, deepest parts of the earth is developed through experimental mineralogy. Besides this, mineralogy gives us clues to the origin of the solar system.

Today's mineralogy plays a vital role in human welfare, the remediation of pollution, and waste disposal, and the understanding of climate through the knowledge of reacting surfaces between the solid earth, the atmosphere and biosphere. Mineralogy is also of prime importance in the exploitation of industrial minerals, petroleum exploration and exploitation, metalliferous mining, and the exploitation of soils.

The IMA supports the scientific development of mineralogical sciences, and favours the relationships with international geoscience bodies affiliated to IUGS, mainly through the organization of Meetings and Workshops, and the publication of books and special volumes within scientific journals.

2.2. Structure

The major components of IMA are its 38 adhering societies and its 12 commissions and working groups (Com-WG). IMA is managed by a council which regulates the IMA activity between the IMA Business meetings which occur every two years since the Edinburgh General Meeting in 2004. In 2006, the business meeting was coincident with the quadrennial General Meeting of IMA which has been held in Kobe, Japan. There the IMA structure changed significantly with the creation of a new position within the IMA council devoted to a Communication Officer. A second deep modification involves the merging of two commissions, the Commission on Classification of Minerals and the commission on New Minerals and Mineral Names to give the Commission in New Minerals, Nomenclature and Classification (CNMNC). An other important modification deals with the creation of sub-commissions in the commission on Applied Mineralogy.

2.2.1. Adhering mineralogical societies and their National Representatives

The 38 adhering mineralogical societies or groups contact IMA through a National Representative (see Appendix , table 1 to get their names - and the IMA website: <http://www.ima-mineralogy.org/adh-org.html>), and a permanent member, usually a secretary, for the larger societies.

Information provided by the IMA secretariat is transmitted to national societies and/or to members of the different IMA Commissions and Working Groups by electronic mail. In addition, national representatives are involved each time the IMA Council wishes to discuss issues with the adhering bodies, or obtain information. Information on the changes of members of IMA Commissions and Working Groups are provided either by the National Representatives or the officers of IMA commissions - working groups. In practise, the IMA officers provide a list of members within their annual report to IUGS.

On the other hand, the ability to interact with our members has been greatly enhanced by the renewal of the IMA website in 2004 and the foundation in 2005 of a new, semi-popular magazine 'Elements' by a consortium of mineralogical and geochemical societies.

2.2.2. The IMA Council

Since the IMA Business Meeting in Kobe, the Council comprises twelve members, instead of eleven, the President, the First and Second Vice-Presidents, the Secretary, the Treasurer, the Communication Officer, the retiring President and five ordinary Councilors (Appendix , Table 2). The first six form the

Officers, whereas the President, Secretary, Treasurer and Communication Officer form the Executive Committee (see chap. 3.1 on IMA decisions).

Following recent practice, the First Vice-president belongs to the Mineralogical Society which is organizing the next General Meeting. He automatically becomes President of the IMA Council once the General Meeting has occurred. In 2006, at the end of the Kobe meeting, Takamitsu Yamanaka became President replacing Ian Parsons. Ekkehart Tillmanns will become the next IMA President in 2010, following the Budapest meeting.

The IMA council usually holds an annual meeting during a scientific meeting in which IMA and/or its COM/WG are sponsoring scientific sessions. Again with the development of electronic contacts, a lot of questions can find an answer without a formal meeting of the Councillors. The executive committee is empowered to solve problems arising between IMA business Meetings. Each council member is a correspondent of one commission-working group.

2. 2.3. Commissions and Working Groups

The scientific activity of IMA is supported by its twelve commissions and working groups (Com-WG) which may interact with various organisations in Geosciences, covering different disciplines such as geophysics, geochemistry and petrology. They play a major role in sponsoring sessions within international meetings, organizing workshops and courses, and in publishing books, special volumes after meetings or catalogues.

Officers of the IMA Com-WG have to publish yearly a report on the activity of their respective Com-WG, which are integrated within the appendix of the IMA annual report to IUGS. The officers maintain also an updated list of members which are otherwise checked by the respective National representatives.

2. 2.4. IMA Business Meetings

IMA affairs are conducted at the business meetings which occur every two years, one during the General Meeting of IMA, and the other during an International meeting, formerly the Geological Congress (IGC), and now IGC or Goldschmidt Conference. Organization of the General Meeting is the responsibility of the inviting mineralogical society. In 2006, the mineralogical society of Japan has organized the 19th General Meeting of IMA.

IMA delegates are assigned by their respective adhering societies in a number not exceeding the balloting power of the society (see Appendix 1, Table 1). Each Member Society can vote during the business meetings according to the group under which it joins the Association. There are three mineralogical societies in category 5 (Germany, Russia and USA) and four in category 4 (Canada, France, Japan, United Kingdom), four in categories 3 (Australia, Austria, China and Italy), eight in category 2 and nineteen in category 1.

A member society becomes a nonvoting member when it is in default with its dues for two years. The delinquent Member Society shall be reinstated in the membership of the Association and again assume the rights and duties of members after having paid all outstanding dues.

Delegates vote on all IMA affairs prepared by the Council, some of the items having been suggested, in due time, to the IMA secretariat by National Representatives or by Officers of IMA Commissions and Working Groups. More specifically, delegates vote on the composition of the Council, the creation, maintenance or ending of IMA Commissions and Working Groups, on the designation of Officers of these commissions/working groups, on the location of the General Meeting of IMA and on the change of the constitution.

2 OBJECTIVES of IMA COMMISSIONS and WORKING GROUPS

In 2006, there were two major changes within the IMA commissions : the merging of the CCM and CNMNC, with the resulting creation of the Commission on new Minerals, Nomenclature and Classification, and the restructuring of the Commission on Applied Mineralogy with the creation of three sub-commissions. Some other commissions and working groups have significantly evolved, and new objectives were defined and new officers designed.

All the detailed informations relative to the activities of IMA Com-WG are reported in the appendix, as well as in the IMA website where specific webpages have been devoted to administrative and scientific activities of the respective IMA Com-WG. Presentation of the IMA commissions and working groups is pursued within Elements (see appendix of the IMA 2005 & 2006 reports to IUGS).

Informations reported below on the objectives of the IMA Com-WG derived from the annual report of IMA Com-WG, publications within Elements, and from the IMA website and that of the Com-WG.

	Name of COM/WG	Members
CAM	Commission on Applied Mineralogy (three officers)	22
CGM	Commission on Gem Materials	26
CMGIP	Commission on Mineral Growth and Interface Processes (three officers)	17
CM	Commission on Museums (two officers)	30
CNMNC	Commission on New Minerals, Nomenclature and Classification and Mineral Names (four officers)	30
COM	Commission on Ore Mineralogy (two officers)	32
CPM	Commission on Physics of Minerals (three officers)	7
WGA	Working Group on Astromineralogy (officers: to be named)	8
WGEM	Working Group on Environmental Mineralogy and Geochemistry (three officers)	to be done
WGIM	Working Group on Inclusions in Minerals	8
WGME*	Working Group on Mineral Equilibria	4-19
WGOM	Working Group on Organic Minerals	17
CICA	Committee on Internet and Computer Applications	6

Table 1 - List of IMA commissions- working groups

2.1. Commission on Applied Mineralogy

Objectives of the CAM were redefined by Dogan Paktunc in the 2006 annual report of CAM, following previous investigations done by the past-chair Dick Hagni (Appendix 2, p7 of the 2005 IMA annual report to IUGS).

""Vision (provisional): 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 (provisional): 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. ""

This allowed to define strategic goals as follow"":

1. Strengthening the linkage between IMA-CAM and ICAM;
2. Organization of sessions and symposia during the ICAM 2008 meeting in Australia and IMA 2010 meeting in Hungary;
3. Investigation of the feasibility of developing and offering modular short courses;
4. Organization of workshops and short courses on applied mineralogy;
5. Establishment of awards recognizing excellence and outstanding achievements and contributions of CAM members;
6. Update of the membership (individual and corporate) and national representatives;
7. Development and maintenance of a membership database;
8. Inquiry of funding from the industry in the form of sponsoring events, awards, competitions and web-page administration;
9. Establishment of sub-commissions on a number of sub-disciplines;
10. Promotion of the applied mineralogy field.

As part of the strategic goals listed above, three new sub-commissions were established in order to make the commission more functional in the diverse sub-disciplines it serves"" (see below). Creation

of sub-commission permits to broaden the range of scientific activities and the participation in more meetings.

2.2. Commission on GEM Materials

(modified from M. Superchi 2005 report). The main goal of the Commission is to produce and update a "Glossary of Gem Materials" that will suggest names to be accepted by most mineralogists despite difficulties related to distinct nomenclature rules, and constraints linked to specific Commercial Groups, existing rules/norms and Country Laws. A provisional glossary was presented in Kobe.

2.3. Commission on Mineral Growth and Interface Processes

The scope of the CMGIP commission is to bring together experts in crystal growth and geoscientists interested in the rich range of phenomena associated with mineral crystallization and dissolution processes in nature. Although there has been interaction between the "crystal growth community" and geoscientists in the past, there is still a strong demand to strengthen and employ the most modern tools for "in situ" observation of these process and advanced ideas if we are to advance our understanding of these processes. Three major categories may be classified:

(1) Interface phenomena on the molecular level, (2) mineral texture formation, (3) crystallization and dissolution mechanisms and (4) novel "in situ" techniques to visualize the process of nucleation and crystal growth.

2.4. Commission on Museums

The CM was established to link the mineralogical sections of museums around the world. The best specimens of minerals, and those described for the first time, are often collected in museums, and the history of mineralogy is intimately bound to the history of museum mineral collections.

The Commission on Museums has officially endorsed the Society of Mineral Museum Professionals as the organization to unite mineral museum curators world-wide.

2.5. Commission on New Minerals, Nomenclature and Classification

The Commission on New Minerals, Nomenclature and Classification (CNMNC) of the International Mineralogical Association (IMA) was formed in July 2006 by a merger between the Commission on New Minerals and Mineral Names (CNMMN) and the Commission on Classification of Minerals, at the request of both commissions.

The Commission on New Minerals and Mineral Names (CNMMN) was established in 1959 for the purpose of controlling the introduction of new minerals and mineral names, and of rationalising mineral nomenclature. Since that time, the work of the CNMMN has gained overwhelming support from the international mineralogical community.

The objective of the Commission on Classification of Minerals (CCM) was to review existing systems of mineral classification and to provide advice on the classification of minerals to the mineralogical community.

The objective of the CNMNC is to control the introduction of new minerals and mineral names, to rationalize mineral nomenclature and to review existing systems on mineral classification.

2.6. Commission on Ore Mineralogy

(from N. Cook 2005 report). "The Commission on Ore Mineralogy (COM) of the International Mineralogical Association was set up in 1962 to serve the interests of ore mineralogists in universities, research institutions 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."

2.7. Commission on Physics of Minerals

(from the 2006 report). "The Commission on Physics of Minerals (CPM) 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 by workshop, conferences and publications."

2.8. Working Group on Astromineralogy

According to F. Rietmeijer, the WGA « is intended to bring together interdisciplinary research of extraterrestrial materials that would complement traditional research of collected meteorites and that is responsive to new developments in laboratory simulations and astronomical and meteor observations". The WGA is actually under restructuring.

2.9. Working Group on Environmental Mineralogy and Geochemistry

The recently established *IMA Working Group on Environmental Mineralogy and Geochemistry* (WGEMG) is seeking to promote this new field through organization of relevant sessions at international conferences, short courses, specialist publications, networking and an internet presence. The officers of the WGEMG and other scientists involved believe that mineralogy and geochemistry have a central role to play in the larger field of environmental science, and in tackling the many environmental problems faced by humanity in the 21st century.

Environmental mineralogy and geochemistry is an interdisciplinary field dealing with systems at, or near, the surface of the Earth where the geosphere comes into contact with the hydrosphere, atmosphere and biosphere. This is the 'environment' on which plants and animals (including humans) depend for survival and which can be disrupted by human activity, particularly that associated with exploitation and utilization of Earth's resources. It deals with those systems containing minerals that constitute key environments (modern sediments, soils, atmospheric aerosols, parts of certain micro and macro organisms including the human body). Both pure systems and those contaminated through human activities are considered, and with emphasis on a fundamental (predictive) understanding of such systems at scales which can range from molecular to global. The full armory of modern analytical, imaging, diffraction, spectroscopic and computer modeling techniques are employed. Examples of specific topics within the remit of environmental mineralogy and geochemistry include: release, transport and dispersal of toxic wastes from mining and industry (including the nuclear industry) and the safe containment of such wastes; mineral based atmospheric aerosols; minerals in the human body; geochemistry and human health; preservation of minerals and rocks in culturally important buildings and artefacts.

According to that, the WGEM group changed his name, adding "geochemistry" to become the working group on Environmental Mineralogy and geochemistry. Two officers were named (see below).

2.10. Working Group on Inclusions in Minerals

The study of inclusions within minerals gives significant information in many earth science domains as mineral growth study, magmatic and metamorphic petrology, astrochemistry, gem and ore mineral studies and petroleum geology. This approach required the development of specific techniques which has promoted the creation of the Working Group on Inclusions in Minerals (WGIM).

2.11. Working Group on Mineral Equilibria

(from the 2005 report, O. Safonov, reporter). The Working Group on Mineral Equilibria (WGME) includes geoscientists who work with the experimental and thermodynamic modelling of mineral equilibria and its application for deciphering of physico-chemical and geodynamic conditions of formation of both magmatic and metamorphic rocks. Since 1978 when the WG was organized, the major rule was to be open for everybody. Activity of the WGME includes just two items: (1) international meetings and (2) special volume publications. Anyway, the WG includes about 10 permanent members.

2.12. Working Group on Organic Minerals

(From the 2005 report). Revision of organic minerals, establishment of a list of valid and rejected names for organic minerals and compilation of data concerning organic minerals are the main objectives of the Working Group on Organic Minerals (WGOM).

2.13. Committee on Internet and Computer Applications

(CICA) (from N. Devouard 2005 report). The creation of the Committee on Internet and Computer Applications (CICA) within the IMA was accepted by the IMA Council at the 18th IMA General Meeting in Edinburgh, September 2002, to replace the former IMA Working Group on Databases and Computer Applications. The objectives of this committee are to collect, document and help improve computer and internet resources in the field of mineralogy, including databases and software. The committee supports activities of the IMA and its COM/WG by providing advice and expertise on issues related to databases and the IMA website.

3 IMA DECISIONS and PERFORMANCE

In Kobe, delegates have voted on the constitution change about the new position of a Communication Officer in the council, on the list of IMA councillors and that of officers of IMA Com-WG, as well as on the merging of CCM and CNMMN (see the appendix with the minutes of the 2nd BM, p 61-62).

The salient decisions taken by the IMA delegates in Kobe and by the Council all along the year are summed up below.

3.1. IMA Communication Officer

A position of Communication Officer was voted in Kobe, and the IMA constitution changed accordingly (see the appendix p. 54 - Appointment of a Communication Officer to the council) and the following amendment was voted in Kobe:

Article 4B (a) of the Constitution (new words underlined):

The Council consists of the President, the First and Second Vice-Presidents, the Secretary, The Treasurer, a Communications Officer, five ordinary Councillors, and the retiring President. The first six of these will hereafter be referred to as the Officers.

The President, Secretary, Treasurer and Communications Officer form the Executive Committee. A person occupying..... [*No further changes*].

The Communication Officer is mainly in charge of publishing IMA news within Elements which appeared every two months, discussing with the managing editor of Elements. The Communication officer will contact all the IMA components (council members, national representatives, officers of IMA commissions and working groups) to get information to be published, and will inform readers about IMA activity. In addition, the Communication officer should assist the IMA secretary to maintain the IMA website, and encourage and assist Commissions and working groups to become interactive e-mail newsgroups (see Appendix p. 54).

3.2. Election of IMA Council members

Takamitsu Yamanaka became the president at the end of the Kobe meeting, succeeding to Ian Parsons, now the IMA past-President, and Ekkehart Tillmanns, the first Vice-President, being chairman of the XXth General meeting of IMA in Budapest, in 2010. All of the council members were approved in Kobe. In November, Frances Wall was designed as the first IMA communication officer by the council, following the decision taken during the second IMA business meeting in Kobe to create such a position within the council.

Regarding the evolution of the council, the past-President, Ian Parsons, thinks that the presidency of IMA would, in the future, be decoupled from chairmanships of the general meeting, perhaps by proposing a new way to select IMA president through a nomination committee and by reducing the term of office (Appendix : see minutes p64, and a paper in Elements, p.42).

Actually, an IMA officer who will occupy the IMA presidency during four years, stay in fact in the council during twelve years, being initially vice-president, and at the end, Past-president.

The 12 council members are as follows :

N°	Position	Name
1	President	Takamitsu Yamanaka
2	First Vice-President	Ekkehart Tillmanns
3	Second Vice-President	Nicolai Yushkin

4 Past-President	Ian Parsons
5 Treasurer	Robert Downs
6 Secretary	Maryse Ohnenstetter
7 Communication Officer	Frances Wall
7 Councillor	Joel Grice
8 Councillor	Kari Kojonen
9 Councillor	Anhuai Lu
10 Councillor	Walter Maresch
11 Councillor	Marcello Mellini

Addresses of council members are available in the IMA website:
<http://www.ima-mineralogy.org/directory.html#ancre1640397>.

3.3. Election of IMA officers

The slate of Officers elected in 2002 was complemented in 2003 by additional new IMA officers in order to better prepare the Kobe meeting. In Kobe, seven officers were elected:

- Dogan Paktunc, chair of the CAM
- Katsuo Tsukamoto, chair of the CMGIP
- Dermot Henry, secretary of the CM
- Frédéric Hatert and Stanislav K. Filatov, respectively First and Second Vice president of the CNMNC
- Sergey Smirnov and Pei Ni, President and Secretary of the WGIM.

Later on, in December 2006, the council has voted for five new councillors proposed by the officers of commissions - working groups:

- Andreas Lutge and Jeanne Paquette, respectively Vice chair and Secretary of the CMGIP
- Tom Sato and John L. Jambor, respectively Vice chair and Secretary of the WGEMG
- Nigel J. Cook, chair of the COM

Nomination of chairs at the head of sub-commissions is one of the aspect of CAM restructuring. In December 2006, the IMA council has agreed the three chairs proposed for the three new sub-commissions:

- Maarten Broekmans, chair of the sub-commission on mineralogy applied to building materials
- Isabella Memmi, chair of the sub-commission on cultural heritage and archaeological materials
- Hans-Joachim Kleebe chair of the sub-commission on Advanced Ceramics and Glasses.

To sum up, in 2006, twelve officers were newly elected or designed. The officers of the CMGIP and WGIM have been totally changed. In the opposite, officers were unchanged in four commissions-working groups, the commissions on Gem Materials, and Physics of Minerals, and in the working groups on Mineral Equilibria and Organic Minerals. The too long duration of term for some IMA chairs of Com-WG was discussed in the council in Kobe and noticed to the IMA delegates during the Kobe business meeting. In addition, it was suggested that the chairmen of commissions serve no more than four years (see Appendix p.42).

3.4. Council meetings and business meetings

In 2006, the 19th General Meeting occurred in Kobe, Japan, 2006 (see Appendix: reports done by E. Takamitsu and Ian Parsons, p43) where two council meetings and business meetings occurred. Minutes are enclosed in the appendix, but a copy of the minutes can be loaded at the following address :

Minutes of the first business meeting :

[http://www.ima-mineralogy.org/download/IMABusinessMeetings/Kobe2006/Minutes_1st_BM_Kobe06\(3\).pdf](http://www.ima-mineralogy.org/download/IMABusinessMeetings/Kobe2006/Minutes_1st_BM_Kobe06(3).pdf)

Appendix of the minutes of the 1st BM:

[http://www.ima-mineralogy.org/download/IMABusinessMeetings/Kobe2006/Appendix3\(1stBM\)Kobe.pdf](http://www.ima-mineralogy.org/download/IMABusinessMeetings/Kobe2006/Appendix3(1stBM)Kobe.pdf)

Minutes of the second business meeting

[http://www.ima-mineralogy.org/download/IMABusinessMeetings/Kobe2006/Minutes_2nd_BM_Kobe06\(IP\).pdf](http://www.ima-mineralogy.org/download/IMABusinessMeetings/Kobe2006/Minutes_2nd_BM_Kobe06(IP).pdf)

The next business meeting will occur during the Goldschmidt meeting in Vancouver, Canada, in 2008 [<http://www.goldschmidt2008.org/>], while the next General Meeting, the 20th, with a business meeting, will be held in Budapest, Hungary, in 2010 [http://www.univie.ac.at/Mineralogie/IMA_2010/]. The next council meeting, in 2007, will occur in Cambridge in 2007 during a joint meeting "Frontiers in mineral science 2007" (26-28 June) [<http://www.minersoc.org/pages/meetings/frontiers/index.html>]. In 2018, the 22th General Meeting will occur in North America. For 2014, mineralogical societies are kindly invited to make proposals to organize the 21th General Meeting.

3.5. Merging of the CCM and CNMMN

The merging of the Commission on New Minerals and Mineral Names and the commission on Classification of Minerals was voted during the Kobe meeting, after having being accepted by the members of the respective commissions in 2005, and by the Council (see appendix p. 55). The decision to merge the two commissions is based on the fact that classification of minerals is inseparable from mineral nomenclature as said recently E. Burke, the new chair of the CNMNC, in a paper which will be published in the last volume of Elements in 2006 (see his text in the appendix p.44).

The following text was approved during the second business meeting of IMA in Kobe with a single vote on the merging proposal comprising:

- the dissolution of the CCM
- the reorganization of the CNMMN which will be changed into the commission on New Minerals, Nomenclature and Classification (CNMNC).

3.6. Creation of sub-commissions

The structure of the IMA commissions vary from one commission to one another, as the commissions have the freedom to determine their own rules of procedure (article 12e).

Up to now, a sub-commission was existing in the Commission of Museums, the sub-commission on Catalogue of Type Minerals (CTMS). On the other hand, the CNMNC has chosen the creation of committees, each working on a different mineral specie.

In 2006, there was the creation of sub-commissions in the CAM to offer a better reactivity and answer to the broad spectrum of field of interest covered by the applied mineralogy disciplines. Three sub-commissions have been created, on mineralogy applied to building materials, on cultural heritage and archaeological materials, and on Advanced Ceramics and Glasses (see chapter 3.3.). Two other sub-commissions are expected to be created in 2007, on (1) mineral exploration and mine development and (2) medical mineralogy and biomaterials.

3.7. IMA medal of Excellence - Committee for the IMA medal

In addition, Joel Grice will chaired a medal committee which will be formed for 2007 (see Appendix - Minutes of the 2nd BM, p 63), The council is actually selecting the Medal committee members and the shape of the IMA Medal.

3.8. IMA fundings

In 2006, the IMA Treasurer, Bob Downs, has contacted the National Representatives to know how many members compose the different mineralogical societies adhering to IMA (Appendix: p.53). It was decided by the Council to decrease the dues paid by the fifteen smallest societies, each with less than 25 members, from 60 to 30 \$US (Appendix p.42). Societies may pay in advance. The dues could be directly given during meetings to avoid bank transfer, as the costs of international money transfer are almost as great as the amount of dues being paid by the small societies.

4 COMMUNICATION - OUTREACH

4.1. IMA involvement in meetings

All the IMA Com-WG were involved in the preparation of sessions during the Kobe meeting (appendix: table 4 for a list of sponsored sessions). An other table (table 5) shows the meetings in which three

IMA Com-WG have been involved, namely the working group on Inclusions in Minerals which sponsored the first ACROFI meeting in Asian area, the commission on Physics of Minerals which sponsored sessions in three meetings, the Goldschmidt meeting, the AGU, and the Annual meeting of JPGU, and the working group on Mineral Equilibria which sponsored two sessions in the EUG.

4.2. Publications

From Table 6 of the Appendix, it can be said that CNMMN has a specific activity dealing with handling of proposed new minerals, reporting on nomenclature of minerals, and compiling lists of minerals defined or rejected, as illustrated by the two papers published in the Canadian Mineralogists [1) New minerals approved in 2005 and nomenclature modifications approved in 2005 by the Commission on New Minerals and Mineral Names, International Mineralogical Association; 2) Mass discredit of GQN minerals. E.A.J. Burke (2006)]. There are also publications resulting from the work of CNMNC subcommittees, as those on epidote and arrojadite.

There were special publications following several meetings. This is the case for the IMA-CPM with a publication in a GSA monograph Book No. 421 to be published in 2007 entitled "Advance in High Pressure Mineralogy" following the Florence meeting, in 2004.

Other publications involve the preparation of a catalogue on Type minerals (CTM) by the CM (commission on Museums) sub-commission, and an other one on Gems prepared by the CGM. A virtual catalogue is also provided by the COM "Virtual Ore Mineralogy".

In 2006, chairs of the CNMMN has informed that the Canadian Mineralogist would like to be paid for publishing CNMMN results. The IMA council has discussed about that, and indicated that some other editors should be found to publish IMA results at free. Walter Maresch is more particularly looking at the way to publish, at no charge, results issued from the Commission on new Minerals, Nomenclature and Classification.

4.3. IMA publication in Elements in 2006

The underlying table sums up the paper published in Elements (<http://www.elementsmagazine.org/>), a journal also accessible from the IMA website.

Volume	N°	Title and author	Appendix
V2	6	The end of CNMMN and CCM, long live the CNMNC! by E. Burke (in press)	p. 44
V2	5	Impressions from the outgoing President, by the Past-President, Ian Parsons	p. 42 and p. 43
V2	5	IMA 2006, Kobe, Japan by Takamitsu Yamanaka	p. 43
V2	3	Next stop Kobe, by the President, Ian Parsons	p. 41
V2	3	In Memoriam (Werner Schreyer 1930-200), From Walter Maresch	p. 41
V2	2	From the Chairman of the commission on Physics of Minerals (CPM), Georg Amthauer	p. 40
V2	1	Money matters, by the President, Ian Parsons	p. 38

Table 2: IMA publications in Elements

4.4. IMA websites

Information relative to IMA activity is displayed within the IMA website maintained by the IMA secretariat with the help of Christine Lecluse, who is funded by IMA. Together with Elements, the IMA website display information about IMA which may be reached by any mineralogist through the Internet.

Table 3 was established from a web served log file analysis program which produces statistics in html format. Information started in August 2004 when the new IMA website was put on line. The Hits value was low up to December 2004 (1347 hits in Dec 2004), and then progressively increase all along the year 2005, but most importantly since August 2005. In 2006, there was an overall increase of all the parameters compared to 2005 data. In fact the progression is smooth since December 2005. The site is used as a tool when considering the amount of files download from the Nancy server. The number of IP address has also increased since the web creation, up to October 2006, when the amount of sites (distinct IP addresses) equal 2 765.

year	Kb	Files	Pages	Visit	Hits
2006 (up to the 19 December)	15 337 7128	369 201	133 218	47 789	480 827
2005	1 726 378	78 522	36 732	14 494	108 896
2004 (5 months)	8 454	1 925	798	132	2 501
2006/2005	89	5	4	3	4
Nov 2006	1 624 343	34 902	11 834	4 385	44 387
Dec 2005	601 465	22 414	10 392	4 252	30 732
Nov2006/ Dec2005	2.70	1.56	1.14	1.03	1.44

Table 3 - Table : usage statistics if the IMA website (from webalizer montly information)

Kb: the Kb (Kilobytes) value shows the amount of data, in KB, that was sent out of the Nancy server during the specified report time, either one year (2005 or 2006), or one month.

Files: amount of files (html page, pdf, graphic image) sent from the Nancy server back to the requesting client.

Pages: any html document

Visits : Whenever a request is made to the server from a given IP address (site), the amount of time since a previous request by the address is calculated (if any). If the difference is greater than 30 minutes, it is considered as a new visit.

Hits: any request made to the server which is logged.

In October 2006, a specific webpage has been created to report the last news concerning IMA as soon as they arrive at the IMA secretariat from the adhering organizations, and IMA Com-WG. Decisions taken by the council following meetings but also at intermediate times between council and business meetings, will be reported on monthly IMA news pages.

The link to the IMA news page is as follow : <http://www.ima-mineralogy.org/imanews.html>

Direct links exist from the IMA website to the adhering mineralogical societies within the following IMA website page: <http://www.ima-mineralogy.org/adh-org.html>

Specific pages devoted to scientific activities, publications, meetings and administrative reports of IMA Com-WG have been recently developed within the IMA website. Most of the IMA commissions have their own website (except two) which can be reached from the IMA website pages designed for the IMA commissions. Website addresses of IMA Com-WG are reported in the table below.

	Name of COM/WG
CAM	Commission on Applied Mineralogy http://www.ima-mineralogy.org/com-wg/CAM/CAM.html http://www.appliedmin.org/_private/cam.htm
CGM	Commission on Gem Materials http://www.ima-mineralogy.org/com-wg/CGM/CGM.html
CMGIP	Commission on Mineral Growth and Interface Processes http://www.ima-mineralogy.org/com-wg/CMGIP/CMGIP.html
CM	Commission on Museums http://www.ima-mineralogy.org/com-wg/CM/CM.html http://www.smp.net/IMA-CM
CNMNC	Commission on New Minerals, Nomenclature and Classification and Mineral Names http://www.ima-mineralogy.org/com-wg/CNMNC/CNMNC.html http://www.geo.vu.nl/users/ima-cnmmn/ forum : www.mindat.org
COM	Commission on Ore Mineralogy http://www.ima-mineralogy.org/com-wg/COM/COM.html http://www.gsf.fi/domestic/com/ima-com.htm
CPM	Commission on Physics of Minerals http://www.ima-mineralogy.org/com-wg/CPM/CPM.html http://www.sbg.ac.at/min/cpm/cpm_index.htm

WGA	Working Group on Astromineralogy http://www.ima-mineralogy.org/com-wg/WGA/WGA.html
WGEM	Working Group on Environmental Mineralogy http://www.ima-mineralogy.org/com-wg/WGEM/WGEM.html
WGIM	Working Group on Inclusions in Minerals http://www.ima-mineralogy.org/com-wg/WGIM/WGIM.html
WGME*	Working Group on Mineral Equilibria http://www.ima-mineralogy.org/com-wg/WGME/WGME.html
WGOM	Working Group on Organic Minerals http://www.ima-mineralogy.org/com-wg/WGOM/WGOM.html
CICA	Committee on Internet and Computer Applications http://www.ima-mineralogy.org/com-wg/CICA/CICA.html

Table 4 : Website addresses of the IMA Commissions - Working groups

- The CAM shares a website “Applied Mineralogy On Line” with the International Council on Applied Mineralogy (ICAM). Chairs have informed on difficulties to maintain an updated website without funding.
- The COM is working on a project to develop a “Virtual Ore Mineralogy”.
- The CNMMN chairs participate to a forum for collectors and amateur mineralogists (www.mindat.org). The CNMNC site delivers CNMMN and CNMNC publications as well as procedures and guidelines for proposing new minerals and mineral names.

4.5. Databases

Most of the IMA commissions - working groups are concerned with databases and discussion about that is reported in minutes or within the annual report of IMA Com-WG. For example, the commission on Museums has decided to examine the way databases are linked and data exported to the web following lectures given during the Kobe meeting.

The RRUFF project was presented during the IMA business meeting by Robert Downs. It consists in building a database of the minerals. This database, funding by Mike Scott, founding president of Apple computers, should be freely accessible to all over the world. In addition, the National Science Foundation has kicked in financial support. The web site is at: rruff.info

It is projected to create, according to Robert Downs "an IMA definitive list of the minerals, their chemistries, crystal structures, spectra, references, etc. that will make all of our lives as professional mineralogists easier, and present our science to the public in a useful manner. A prototype of this database is available at:

http://rruff.geo.arizona.edu/ref/Minerals_main.html and <http://rruff.geo.arizona.edu/>.

The immediate goals of the prototype are to provide a complete list of approved minerals along with their chemical compositions and crystallographic information. etc.

According to R. Downs (October 2006), the list is partly done and should be ready for inspection by professional mineralogists before opening the Mineral List to the public.

In addition, a collection of papers are listed and kept under a pdf form. See an example at http://rruff.info/about/about_publishers.php.

Maryse Ohnenstetter
 IMA secretary
 20 December 2008