

### IMA 2006 Annual Report to IUGS Appendix

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The annual reports of the 12 IMA Commissions and Working Groups (COM/WG) and that of the CICA, the papers published in Elements, the different list s of IMA components and the minutes of the 2006 Kobe business meetings are all available on the IMA website. List of delegates of IMA Commissions and Working Groups and their addresses could be obtained from the web pages of the different IMA Com-WG.

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Table 1- List of the mineralogical societies adhering to IMA, together with the name and e-mail of their National Representative (modification August 2006).

	Country	Society or group	National Representative	Voting Power
1	Argentina	Asociacion Mineralogica Argentina	Milka K. de BRODTKORB, milkabro@gl.fcen.uba.ar	1
2	Australia	Geological Society of Australia; Specialist Group of geochemistry, Mineralogy and Petrology (SGGMP)	William D. BIRCH bbirch@museum.vic.gov.au	3
3	Austria	Osterreichische Mineralogische Gesellschaft	Ekkehart TILLMANNS ekkehart.tillmanns@univie.ac.at	3
4	Belgium	Union Minéralogique de Belgique	André-Mathieu FRANSOLET amfransolet@ulg.ac.be	1
5	Brazil	Sociedade Brasileira de Geologia	Fabio Ramos Dias de ANDRADE dias@usp.br	1
6	Bulgaria	Bulgarian Mineralogical Society (BMS)	Ivan BONEV bonev@geology.bas.bg	1
7	Canada	Mineralogical Association of Canada	Robert F. Martin bobm@eps.mcgill.ca	4
8	China	Chinese Society of Mineralogy, Petrology and Geochemistry	Liben WANG wlb@cags.net. cn	3
9	Croatia	Croatian Mineralogical Association	Vladimir Bermanec vberman@public.srce.hr	1
10	Czech Rep.	Czech Geological Society	Milan NOVÁK mnovak@sci.muni.cz	2
11	Denmark	The Mineralogical Society of Denmark	Ole JOHNSEN oj@savik.geomus.ku.dk	1
12	Egypt	The Mineralogical Society of Egypt	Mohamed E. HELMY Mamandour@hotmail.com	1
13	Finland	The Mineralogical Society of Finland	Seppo I. LAHTI seppo.lahti@gsf.fi	
14	France	French Society of Mineralogy and Crystallography	Daniel NEUVILLE neuville@ipgp.jussieu.fr	4
15	Germany	Deutsche Mineralogische Gesellschaft - The German Society of Mineralogy.	Walter Maresch walter.maresch@rub.de	5
16	Greece	Geological Society of Greece; Committee of Economic Geology, Mineralogy, and Geochemistry (CEGMG)	Michael Vavelidis vavelidi@geo.auth.gr	1
17	Hungary	Hungarian Geological Society; Mineralogical Geochemical Section	Tamas G. WEISZBURG weiszburg@ludens.elte.hu	1
18	India	The Mineralogical Society of India	C. SRIKANTAPPA, msimys@eth.net	1
19	Israel	Israel Geological Society (IGS)	Shlomo SHOVAL shoval@oumail.openu.ac.il	1
20	Italy	Società Italiana di Mineralogia e Petrologia	Andrea Orlando andrea.orlando@geo.unifi.it	
21	Japan	Commission of Mineralogical Research of the Science Council of Japan	Takamitsu YAMANAKA yamanaka@hcp.cmc.osaka-u.ac.jp	4
22	Korea (Sth)	Mineralogical Society of Korea	Sung Keun LEE sungklee@snu.ac.kr	1
23	Netherlands	Royal Geological and Mining Society of the Nederlands		
24	New Zealand	New Zealand Geochemical Group	Eddie Davis eddie.davis@rsnz.org	1
25	Norway	Mineralogisk Gruppe Av Norsk Geologisk Forening	Gunnar RAADE gunnar.raade@nhm.uio.no	1
26	Poland	Mineralogical Society of Poland	Wojciech NAREBSKI narebski@ing.uj.edu.pl	2
27	Portugal	Sociedada geologica de Portugal; grupo de mineralogia	Álvaro M. MADUREIRA PINTO alvaro.pinto@fc.ul.pt	1
28	Romania	Mineralogical Society of Romania	Gheorghe UDUBASA udubasa@geo.edu.ro	2



29	Russia	Mineralogical Society of Russia	Dmitry D.V.RUNDQVIST	5
			dvr@sgm.ru	
30	Slovakia	Slovak Mineralogical Society	Martin CHOVAN	1
			chovan@fns.uniba.sk	
31	South Africa	Mineralogical Association of South Africa	Johan de VILLIERS	2
			jpdev@postino.up.ac.za	
32	Spain	Sociedad Espanola de Mineralogia	Emilio GALAN	2
			egalan@us.es	
33	Sweden	Mineralogical Society of Sweden	UIf HALENIUS	2
			Ulf.Halenius@nrm.se	
34	Switzerland	Swiss Society of Mineralogy and	Thomas ARMBRUSTER	2
		petrology	armbruster@krist.unibe.ch	
35	Ukraine	Ukrainian Mineralogical Society	Victor M. Kvasnytsya	2
			vmkvas@i.com.ua	
36	United Kingdom	Mineralogical Society of Great Britain	Mark E. HODSON	4
		and Northern Ireland	f M.E.Hodson@reading.ac.uk	
37	USA	Mineralogical Society of America	George E. Harlow	5
			gharlow@amnh.org	
38	Uzbekistan	Mineralogy Society of Uzbekistan	Rustan Koneev	1
			aripovumid@yahoo.com	



The current Council of IMA. Left to right. Back row: Anhuai Lu (China), Joel Grice (Canada), Ekkehart Tillmanns (Austria, Chairman of the 2010 General Meeting), Nicolai Yushkin (Russia), Maryse Ohnenstetter (Secretary, France), Herta Effenberger (attending on behalf of EMU). Front row: Walter Maresch (Germany), Ian Parsons (Great Britain and Ireland), Takamitsu Yamanaka (President, Japan), Robert Downs (Treasurer, Canadian based in the USA), Marcello Mellini (Italy), Kari Kojonen (Finland). [Published in the October issue of Elements, 2006].



Table 2 - List of council members

President:	Secretary:	Treasurer:
Takamitsu Yamanaka	Maryse Ohnenstetter	Robert T. Downs <sup>£</sup>
Department of Earth and Space	CNRS - CRPG	Dept of Geosciences
Sciences	(Centre de recherches	522 Gould-Simpson Building
Graduate School of Science	pétrographiques et géochimiques)	University of Arizona
Osaka University	15, rue Notre Dame des Pauvres -	1040 E 4th St.
1-1 Machikaneyama Toyonaka	B.P. 20	Tucson, Arizona 85721-0077
Osaka	54501 Vandoeuvre-les-Nancy	USA
560-0043 Japan	Cedex, France	Phone: (520) 626-8092
Tel-Fax: 81 6 6850 5793	Tel: 33 (0)3 83 59 42 46	fax: (520) 621-2672
e-mail:	Fax: 33 (0)3 83 51 17 98	e-mail: downs@geo.arizona.edu
yamanaka@hpc.cmc.osaka-u.ac.jp	e-mail:	33333
у в поменения в по	mohnen@crpg.cnrs-nancy.fr	<sup>£</sup> Named on the 7 <sup>th</sup> of November,
President in 2006	Since 2002	2005
		Elected in 2006
Communication Officer	1 <sup>st</sup> Vice-President:	2 <sup>nd</sup> Vice-President:
Frances Wall	Ekkehart Tillmanns	Nicolai P. Yushkin
Department of Mineralogy	Institut fuer Mineralogie und	Institute of Geology
The Natural History Museum	Kristallographie	Komi Science Centre
Cromwell Road	Geozentrum, Althanstr. 14, A-1090	UD RAS Syktyvkar Russia
London SW7 5BDUK	Wien, Austria	e-mail: yushkin@geo.komisc.ru
Tel. +44 (0)20 7942 5623	Tel.: +43 1 4277 53226	Elected in 1998
Fax. +44 (0)20 7942 5537	Fax: +43 1 4277 9532	Liected III 1990
e-mail: F.Wall@nhm.ac.uk	e-mail:	
Named in November 2006	ekkehart.tillmanns@univie.ac.at	
Named in November 2000	Elected in 2006	
Past-President:	Ordinary Councillors	Kari K.R. Kojonen
Ian Parsons FRSE	Joel Grice	Geological Survey of Finland
Professor of Mineralogy	Research Scientist	Finland
Grant Institute of Earth Science	Canadian Museum of Nature	Phone +35205502483
University of Edinburgh	P.O. Box 3443 Stn D	Fax: +3582055012
West Mains Road	Ottawa, ON, K1P 6P4, Canada	e-mail: kari.kojonen@gsf.fi
Edinburgh EH9 3JW	Phone: +1 613 364-4057	e-maii. kan.kojonen@gsi.ii
	Fax: +1 613 364-4027	Since 1998
United Kingdom		Since 1996
Phone: 44 (0)131 650 8512 Fax: +44 (0)131 650 3184	e-mail: JGRICE@mus-nature.ca	
	Elected in 2006	
e-mail: ian.parsons@ed.ac.uk	Elected III 2000	
Since 1998	Maltar V Maragah	Marcello Mellini
Anhuai Lu	Walter V. Maresch	Marcello Mellini
Professor of Environmental	Institut für Geologie, Mineralogie	Dipartimento di Scienze della
Mineralogy Director of Research Center for	und Geophysik	Terra
	Ruhr-Universität Bochum	Universita di Siena
Geomaterials and Environment	D-44780 Bochum, Germany	Av.Laterina 8 - 53100 - Siena
School of Earth and Space Science	Tel.: +49 234 3223511 (direct)	Tel. +39-577-233936
Peking University	Tel.: +49 234 3228155 (Secr.)	FAX+39-577-233938
Beijing 100871, China	Fax: +49 3214433	e-mail: mellini@unisi.it
Tel: + 86 010 6275 3555	e-mail: walter.maresch@rub.de	0.444 0000
Fax: +86 010 6275 1159	FI 1 1: 0000	Since 2002
e-mail: ahlu@pku.edu.cn	Elected in 2006	
Elected in 2006		



### Table 3 -List of IMA officers (27th November 2006)

1					9 11
	Commission on/ Working Group on			Name	e-mail address
1	Applied mineralogy	CAM	Ch	Dogan Paktunc	dpaktunc@NRCan.gc.ca
			V-Ch	Eric Pirard	Eric.Pirard@ulg.ac.be
			Sec	Henrique Kahn	henrkahn@usp.br
					henrique.kahn@poli.usp.br
	Sub-commissio		Ch	Maarten Broekmans	Maarten.Broekmans@NGU.NO
	Mineralogy applied to				
	Materials (CAM-BM)	ı.			
			01		
	Sub-commission on		Ch	Isabella Memmi	memmi@unisi.it
	Heritage and Archa	eological			
	Materials (CAM-CHAM	۱¥			
	Sub-commission on A		Ch	Hans Joachim Kleebe	kleebe@geo.tu-darmstadt.de
	Ceramics and G		CII	Tians Joachini Nicebe	kieebe@geo.tu-daimstadt.de
	(CAM-ACG)				
2	Gem Materials	CGM	Ch	Margherita Superchi	superchi@mi.camcom.it
_	Com Materials	00111	V-Ch	Lin Sutherland	lins@austmus.gov.au
			Sec	Takeshi Miyata	Miyata@jewelry-it.ac.jp
1			000	Takooni Wiiyata	tmiyata@pluto.dti.ne.jp
3	Mineral Growth and	CMGIP	Ch	Katsuo Tsukamoto	ktsuka@mail.tains.tohoku.ac.jp
-	Interface Processes		V-Ch	New proposal:	aluttge@mail.rice.edu
				Andreas Luttge*	
			Sec	New proposal:	jeannep@eps.mcgill.ca
				Jeanne Paquette*	
4	Museums	CM	Ch	Lydie Touret	touret@musee.ensmp.fr
			Sec	Dermot Henry	shenry@museum.vic.gov.au
5	New Minerals,	CNMNC	Ch	Ernst A.J. Burke	ernst.burke@falw.vu.nl
	Nomenclature and		Sec	William D. Birch	bbirch@museum.vic.gov.au
	Classification		1st V- Ch	Frédéric Hatert	fhatert@ulg.ac.be
			2nd C-	Stanislas K. Filatov	filatov@crystal.pu.ru
			Ch	Statilsias R. Filatov	Illatov@crystar.pu.ru
6	Ore Mineralogy	COM	Ch	Nigel J. Cook*	nigelc@nhm.uio.no
Ü	ore mineralogy	OOW	V-Ch	Kari K. Kojonen	kari.kojonen@gsf.fi
					kan.kojonen@gsi.ii
7	Physics of Minerals	CPM	Sec	(to be named)	
7	Physics of Minerals	СРМ	Sec Ch	(to be named) Georg Amthauer	Georg.Amthauer@sbg.ac.at
7	Physics of Minerals	СРМ	Sec Ch V-Ch	(to be named) Georg Amthauer Eiji Ohtani	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp
7	-	CPM WGA	Sec Ch	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville	Georg.Amthauer@sbg.ac.at
	Working Group on		Sec Ch V-Ch Sec	(to be named) Georg Amthauer Eiji Ohtani	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp
	-		Sec Ch V-Ch Sec	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp
8	Working Group on Astromineralogy	WGA	Sec Ch V-Ch Sec Ch	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville (to be named)	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp neuville@ipgp.jussieu.fr  david.vaughan@man.ac.uk tomasato@eng.kokudai.as.jp
8	Working Group on Astromineralogy Environmental	WGA WGEMG	Sec Ch V-Ch Sec Ch	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville (to be named)  David Vaughan	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp neuville@ipgp.jussieu.fr david.vaughan@man.ac.uk
8	Working Group on Astromineralogy Environmental Mineralogy & Geochemistry Inclusions in	WGA	Sec Ch V-Ch Sec Ch Ch V-Ch	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville (to be named)  David Vaughan Tom Sato*	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp neuville@ipgp.jussieu.fr  david.vaughan@man.ac.uk tomasato@eng.kokudai.as.jp
8	Working Group on Astromineralogy Environmental Mineralogy & Geochemistry Inclusions in Minerals	WGA WGEMG WGIM	Sec Ch V-Ch Sec Ch V-Ch Sec Ch Sec Ch Sec	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville (to be named)  David Vaughan Tom Sato* John L. Jambor*	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp neuville@ipgp.jussieu.fr  david.vaughan@man.ac.uk tomasato@eng.kokudai.as.jp Jljambor@aol.com
8	Working Group on Astromineralogy Environmental Mineralogy & Geochemistry Inclusions in	WGA WGEMG	Sec Ch V-Ch Sec Ch Ch V-Ch Sec Ch Ch Ch Ch Ch Ch Ch	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville (to be named)  David Vaughan Tom Sato* John L. Jambor* Sergey Smirnov	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp neuville@ipgp.jussieu.fr  david.vaughan@man.ac.uk tomasato@eng.kokudai.as.jp Jljambor@aol.com ssmr@uiggm.nsc.ru
8 9 10	Working Group on Astromineralogy Environmental Mineralogy & Geochemistry Inclusions in Minerals	WGA WGEMG WGIM	Sec Ch V-Ch Sec Ch V-Ch Sec Ch Sec Ch V-Ch Sec Ch V-Ch	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville (to be named)  David Vaughan Tom Sato* John L. Jambor* Sergey Smirnov Pei Ni Leonid L. Perchuk Masaki Akaogi	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp neuville@ipgp.jussieu.fr  david.vaughan@man.ac.uk tomasato@eng.kokudai.as.jp Jljambor@aol.com ssmr@uiggm.nsc.ru peini@nju.edu.cn llp@geol.msu.ru masaki.akaogi@gakushuin.ac.jp
8 9 10 11	Working Group on Astromineralogy Environmental Mineralogy & Geochemistry Inclusions in Minerals	WGA WGEMG WGIM WGME	Sec Ch V-Ch Sec Ch V-Ch Sec Ch Sec Ch Sec Ch Sec Ch Sec Ch Sec	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville (to be named)  David Vaughan Tom Sato* John L. Jambor* Sergey Smirnov Pei Ni Leonid L. Perchuk Masaki Akaogi Oleg Safonov	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp neuville@ipgp.jussieu.fr  david.vaughan@man.ac.uk tomasato@eng.kokudai.as.jp Jljambor@aol.com ssmr@uiggm.nsc.ru peini@nju.edu.cn llp@geol.msu.ru masaki.akaogi@gakushuin.ac.jp oleg@iem.ac.ru
8 9 10	Working Group on Astromineralogy Environmental Mineralogy & Geochemistry Inclusions in Minerals	WGA WGEMG WGIM	Sec Ch V-Ch Sec Ch V-Ch Sec Ch Sec Ch Sec Ch Sec Ch Ch V-Ch Sec Ch Ch Ch	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville (to be named)  David Vaughan Tom Sato* John L. Jambor* Sergey Smirnov Pei Ni Leonid L. Perchuk Masaki Akaogi Oleg Safonov Norbert Vavra	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp neuville@ipgp.jussieu.fr  david.vaughan@man.ac.uk tomasato@eng.kokudai.as.jp Jljambor@aol.com ssmr@uiggm.nsc.ru peini@nju.edu.cn llp@geol.msu.ru masaki.akaogi@gakushuin.ac.jp oleg@iem.ac.ru norbert.vavra@univie.ac.at
8 9 10 11	Working Group on Astromineralogy Environmental Mineralogy & Geochemistry Inclusions in Minerals Mineral Equilibria  Organic Minerals	WGA WGEMG WGIM WGME	Sec Ch V-Ch Sec Ch V-Ch Sec Ch Sec Ch Sec Ch Sec Ch Sec Ch Sec	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville (to be named)  David Vaughan Tom Sato* John L. Jambor* Sergey Smirnov Pei Ni Leonid L. Perchuk Masaki Akaogi Oleg Safonov	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp neuville@ipgp.jussieu.fr  david.vaughan@man.ac.uk tomasato@eng.kokudai.as.jp Jljambor@aol.com ssmr@uiggm.nsc.ru peini@nju.edu.cn llp@geol.msu.ru masaki.akaogi@gakushuin.ac.jp oleg@iem.ac.ru
8 9 10 11	Working Group on Astromineralogy Environmental Mineralogy & Geochemistry Inclusions in Minerals Mineral Equilibria  Organic Minerals Committee on	WGA WGEMG WGIM WGME	Sec Ch V-Ch Sec Ch V-Ch Sec Ch Sec Ch Sec Ch Sec Ch Ch V-Ch Sec Ch Ch Ch	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville (to be named)  David Vaughan Tom Sato* John L. Jambor* Sergey Smirnov Pei Ni Leonid L. Perchuk Masaki Akaogi Oleg Safonov Norbert Vavra Waltraud Winkler Bertrand Devouard	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp neuville@ipgp.jussieu.fr  david.vaughan@man.ac.uk tomasato@eng.kokudai.as.jp Jljambor@aol.com ssmr@uiggm.nsc.ru peini@nju.edu.cn llp@geol.msu.ru masaki.akaogi@gakushuin.ac.jp oleg@iem.ac.ru norbert.vavra@univie.ac.at waltraud.winkler@sbg.ac.at devouard@opgc.univ-bpclermont.fr,
8 9 10 11	Working Group on Astromineralogy Environmental Mineralogy & Geochemistry Inclusions in Minerals Mineral Equilibria  Organic Minerals  Committee on Internet and	WGA WGEMG WGIM WGME	Sec Ch V-Ch Sec Ch V-Ch Sec Ch Sec Ch Sec Ch Sec Ch V-Ch Sec Ch Sec	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville (to be named)  David Vaughan Tom Sato* John L. Jambor* Sergey Smirnov Pei Ni Leonid L. Perchuk Masaki Akaogi Oleg Safonov Norbert Vavra Waltraud Winkler	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp neuville@ipgp.jussieu.fr  david.vaughan@man.ac.uk tomasato@eng.kokudai.as.jp Jljambor@aol.com ssmr@uiggm.nsc.ru peini@nju.edu.cn llp@geol.msu.ru masaki.akaogi@gakushuin.ac.jp oleg@iem.ac.ru norbert.vavra@univie.ac.at waltraud.winkler@sbg.ac.at
8 9 10 11	Working Group on Astromineralogy Environmental Mineralogy & Geochemistry Inclusions in Minerals Mineral Equilibria  Organic Minerals Committee on	WGA WGEMG WGIM WGME	Sec Ch V-Ch Sec Ch V-Ch Sec Ch Sec Ch Sec Ch Sec Ch V-Ch Sec Ch Sec	(to be named) Georg Amthauer Eiji Ohtani Daniel Neuville (to be named)  David Vaughan Tom Sato* John L. Jambor* Sergey Smirnov Pei Ni Leonid L. Perchuk Masaki Akaogi Oleg Safonov Norbert Vavra Waltraud Winkler Bertrand Devouard	Georg.Amthauer@sbg.ac.at ohtani@mail.tains.tohoku.ac.jp neuville@ipgp.jussieu.fr  david.vaughan@man.ac.uk tomasato@eng.kokudai.as.jp Jljambor@aol.com ssmr@uiggm.nsc.ru peini@nju.edu.cn llp@geol.msu.ru masaki.akaogi@gakushuin.ac.jp oleg@iem.ac.ru norbert.vavra@univie.ac.at waltraud.winkler@sbg.ac.at devouard@opgc.univ-bpclermont.fr,

<sup>\*</sup> Accepted by the IMA council on the 8th of december 2006.

\* Accepted by the Council on the 8th of december 2006.



Table 4 - Sponsoring of sessions in Kobe by the IMA Commissions/Working Groups

Com/ WG	Scientific Session	N°	Title	Chairmen
CAM	Environmental and applied mineralogy	28	Crystals, ceramics and glasses with advanced physico-chemical properties Co-sponsorship with ICAM	G. Calas, <u>R. Hagni,</u> F. Langenhorst, M. Yashima, A. Yoshiasa, S. Uda
	Environmental and applied mineralogy	29	Process Mineralogy Co-sponsorship with ICAM	H. Kahn, T. Mizota, K. Sugiyama
CCM	Structural Sciences of minerals	8	Crystal structure, topology and crystal chemistry	R. T. Downs, Y. Kudoh, M. Nespolo, S. Sasaki
	Mineral heritage	31	New minerals and mineral classification Co-sponsorship with CNMMN	G. Ferraris, S. Matsubara, Z. Yang
CMGIP	Crystal growth	11	Application of novel techniques for "in situ" observation of crystal growth and nucleation	A. Luttge, <u>K. Tsukamoto</u>
	Crystal growth	12	texture formation and crystal growth in geosciences	M. Nakamura, T. Nishiyama, A. Putnis
	Crystal growth	13	Nucleation and aggregation of macro- to nano- material	L. Baumgartner, M. Ishikawa
CGM	Mineral heritage	32	Natural and artificial gem materials	L.A Groat, C. Ionescu, H. kanda, T. Miyata
CM	Mineral heritage	30	Mineralogical and Geological Museums	W.D. Birch, G.E. Harlow, R. Miyawaki
CNMMN	Mineral heritage	31	New minerals and mineral classification Co-sponsorship with CCM	G. Ferraris, S. Matsubara, Z. Yang
COM	Hydrothermal process and mineralization	16	Mineralogy of ore deposits	N. Cook, K. Kojonen, H. Matsueda, R. Merkle, M. Shimizu
CPM	Mineral Physics and HP mineralogy	5	Mineralogy and dynamics of the mantle and core	Jay Bass, Kei Hirose, <u>Eiji</u> <u>Othani</u> , David Rubie
	Structural Sciences of minerals	9	Structure and physical properties of melt and glass	G. S. Henderson, M. Kanzaki, <u>D. Neuville</u> , X. Xue
WGIM	Hydrothermal process and mineralization	17	Fluid and melt inclusions	M. Enjoji, C.A. Heinrich, <u>S.</u> Smirnov, <u>Zhaolin Li</u>
WGME	Mineral Physics and HP mineralogy	1	Phase transitions and thermodynamic modeling of minerals and rocks	M.Akaogi, Y. Fei, S. Poli, S. Saxena
WGOM	Environmental and applied mineralogy	24	Bio-Geo interface in minerals Co-sponsorship with ICAM	D. Fortin, M. kawano, K. Tazaki
WGA	Planetary materials	21	Primitive meteorites, interplanetary dust and sample return missions	T. Nakamura, K. Tomeoka, M.E. Zolensky
	Planetary materials	23	Physical and chzmical processes and chronology in the solar system	G. Libourel, F.J.M. Rietmeijer, A. Tsuchiyama, H. Yurimoto
WGEM	Environmental and applied mineralogy	26	Environmental and medical mineralogy Co-sponsorship with ICAM	A. Lu, M. Posfai, T. Sato, <u>D.</u> <u>Vaughan</u> , R. Wogelius



Table 5 - Other meetins and sessions sponsored by the IMA Commissions/Working Groups

Meetings	IMA commissions - working groups	Sessions
2006 Annual meeting of JPGU (Japan Heoscience Union) 14th-18th, May 2006, Makuhari, hapan	IMA-CPM	High Pressure Earth Science     Physics and Chemistry of Earth's Minerals
2006 Goldschmidt conference in Melbourne (27th August-1 <sup>st</sup> September).	IMA-CPM	Perovskite and post-perovskite and mantle dynamics
2006AGU fall meeting (11-15 <sup>th</sup> Dec.) San Francisco	IMA-CPM	MR13A: Composition and Dynamics of Earth's Mantle: Current Frontiers and Grand Challenges in Elasticity, Phase Transitions, and Rheology Studies (Oral) (Lin, Ohtani, Prewitt, Bass, Karato)
First ACROFI (the First Conference on Asian Current Research of Fluid Inclusions), Nanjing University, China in May 2006	IMA- WGIM	
European Geoscience Union Meeting (EGU-06), 1-8 April, Vienna, Austria:	IMA-WGME	1) Rates of tectono-metamorphic processes: insights from observations and numerical modeling" (Conveners: Dr. Taras V. Gerya and Prof. Leonid L. Perchuk)  2) Experiment at HP-HT: application in geosciences" (Conveners: Prof. Leonid L. Perchuk and Dr. Oleg G. Safonov)
Annual International School on Geosciences – 2006 (ISES-06), 20-25 August, Odessa, Ukraine.	IMA-WGME	Teaching and scientific lectures were presented by lecturers from Moscow (Russia) and Frankfurt (Germany).



Table 6 - Publications of IMA commissions and working groups

	Catalogue of Type Minerals (CTM)	
CM-CTMS		
COM & CNMMNC	Report on sulphosalt (Yves Moelo and E. Makovicky)	
IMA-CNMNC	1) Recommended nomenclature of epidote-group minerals. Armbruster, T. <i>et al.</i> , 2006:	1) European Journal of Mineralogy, 2006, 18, 551–567.
	2) The arrojadite enigma: I. A new formula and a new model for the arrojadite structure. Camara, F. et al., 2006:	2) American Mineralogist, 2006, 91, 1249–1259.
	3)The arrojadite enigma: II. Compositional space group, new members, and nomenclature of the group. Chopin, C. <i>et al.</i> , 2006:.	
	4) New minerals approved in 2005 and nomenclature modifications approved in 2005 by the Commission on New Minerals and Mineral Names, International Mineralogical Association. Burke, E. A. J. and Ferraris, G., 2006:	4) Canadian Mineralogist, 2006, 44, 547–552
	5) Mass discreditation of GQN minerals. E.A.J. Burke (2006)	5) Canadian Mineralogist, 2006, 44, 1617-1620.
IMA-CPM	"Advance in High Pressure Mineralogy" containing 13 review papers on high pressure mineral physics following the IMA session held in 2004 IGC Florence meeting.	GSA monograph Book No. 421 to be published in 2007 E. Ohtani Ed.
IMA-WGOM	1) KOSMOWSKA-CERANOWICZ,B. & GIERLOWSKI,W. (2006): Amber. Views, opinions. – 243 p., The Internat. Amber Assoc., Museum of the Earth – Polish Acad. Sci., Gdansk Internat. Fair Co., Gdansk – Warsaw.  2) VÁVRA, N. (2005): Bernstein und verwandte Organische Minerale aus Österreich. – Beitr. Paläont., 29: 255 – 280. YAMAMOTO, S., OTTO, A., KRUMBIEGEL, G. & SIMONEIT, B. R. T. (2006): The natural product biomarkers in succinite, glessite and stantienite ambers from Bitterfeld, Germany. – Rev. Palaeobot. Palynology, 140 (2006): 27 – 49.	



Table 7 - List of 2007 and 2008 meetings and short courses with the participation of IMA Commissions and working groups

IMA Com-WG involved	Dates	Name of the Conference	Location	Website address of the meeting e- mail Contact
		MEETIN	GS 2007	
IMA-CMGIP	March 2007	International Symposium on calcite growth and interface processes	Tohoku Univ. Japan	ktsuka@mail.tains.tohoku.ac.jp
IMA-WGEMG IMA-WGME	15-20Apr 2007	European Geosciences Union General Assembly 2007	Vienna Austria	http://meetings.copernicus.org/egu2007/ egu.meetings@copernicus.org
IMA-CPM	8-12 May 2007	7th High Pressure Mineral Physics meeting	Marsushima Japan	http://www.ganko.tohoku.ac.jp/hpmps/ohtani@mail.tains.tohoku.ac.jp
IMA-CPM	19-24 May 2007	JPGU (Japan Geoscience Union)	Chiba Japan	http://www.jpgu.org/meeting_e/ reg@jpgu.org
IMA-CAM- AMBM	5-9June 2007	11th Euroseminar on Microscopy Applied to Building Materials	Porto, Portugal	http://www.fc.up.pt/11thEMABM/ 11thEMABM@fc.up.pt ifernand@fc.up.pt
IMA IMA-CPM IMA	26-28 June 2007	Frontiers in Mineral Science	Cambridge England	http://www.minersoc.org/pages/meeting s/frontiers/index.html info@minersoc.org
IMA-WGEMG	31/07/2007 05/082007	Water-rock interactions	Kunming China	http://www.wri12.org wri12@cug.edu.cn
IMA-WGEMG	19-24 August 2007	Goldschmidt 2007 "atoms to planets"	Cologne, Germany	http://www.goldschmidt2007.org/index.p hp local.helpdesk@goldschmidt2007.org
IMA-CMGIP	1-5 October 2007	2nd International Conference on Crystallogenesis and Mineralogy	St- Petersburg Russia	http://www.minsoc.ru/confs.php?cid=39 KM2007@minsoc.ru
		MEETIN	GS 2008	
IMA-CAM- AMBM	16-19June 2008	13th International Conference on Alkali- Aggregate Reaction in Concrete	Trondheim Norway	http://www.icaar2008.org/ http://www.rms.org.uk/event_icaar.shtml siri.engen@tekna.no Harald.Justnes@sintef.no
IMA IMA-WGEMG	13-18 July 2008	Goldschmidt 2008 "from Sea to Sky"	Vancouver Canada	http://www.goldschmidt2008.org/index.php
IMA IMA-CMGIP IMA-COM IMA-CAM- COM-WGEMG	5-14 August 2008	33rd International Geological Congress	Oslo Norway	http://www.33igc.org/ arne.bjorlykke@ngu.no
IMA-CM	7-9 septembre 2008	6th International Conference on Mineralogy and Museums (M&M6)	Denver Colorado	pbartos@mines.edu
IMA-CAM	8-10 septembre 2008	9th International Congress for Applied Mineralogy	Brisbane, Australia	http://www.icam2008.com/home.asp conference@ausimm.com.au
IMA-WGIM	November 2008	ACROFI-II	Haragpur India	



### Table - 7 (continued)

IMA Com-WG involved	Dates	Name of the Schort course	Location	Website address of the meeting e- mail Contact
		SHORT COURS	SES 2007 & 2008	3
IMA-COM	29/04/2007 02/05/2007		Montreal Canada	
IMA-WGME	1-7 septembre 2007	Annual International School on Geosciences	Odessa Ukraine	
IMA-WGME	1-7 septembre 2007	High pressure metamorphism	Odessa Ukraine	
IMA-CAM	2007	Microscopía Cuantitativa y control de procesos minerals	Universidad Catolica del Peru in Lima, Peru	eric.pirard@ulg.ac.be
IMA-CAM IMA-COM IMA-WGEMG	5-14 August 2008	Metals in the earth: from vital resource to environmental hazard. During the 33rd IGC	Oslo Norway	dpaktunc@NRCan.gc.ca
IMA-COM	2008	SC in advanced ore mineralogy	Nanjing China	
IMA-CAM and IMA-CAM - MABM	12/03/2007	RILEM Technical Committee ACS	Paris France	http://www.rilem.net/tcDetails.php?tc=ACS
IMA-COM	29/04/2007 02/05/2007		Montreal Canada	
IMA-WGME	1-7 septembre 2007	Annual International School on Geosciences	Odessa Ukraine	
IMA-WGME	1-7 septembre 2007	High pressure metamorphism	Odessa Ukraine	



### IMA Commission on Applied Mineralogy (CAM) Annual Report for 2006 to IUGS

### 1. Title of Commission:

Commission on Applied Mineralogy (CAM)

**Current Officers:** 

Dogan Paktunc, Chairman Eric Pirard, Vice-Chairman Henrique Kahn, Secretary

Reporter:

Dogan Paktunc

### 2. Objectives:

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.

### 3. Business Meeting held during 2006:

CAM held its regular business meeting on July 25, 2006 at the IMA meeting in Kobe, Japan.

### 4. Interface with other International organizations:

CAM will continue to work together with ICAM on many issues including the planning of the 9<sup>th</sup> International Congress on Applied Mineralogy (ICAM 2008) in Brisbane, Australia. CAM is a co-sponsor of the ICAM 2008 meeting.

CAM will be participating in RILEM's (Réunion Internationale des Laboratoires et Experts des Matériaux, Systèmes de Constructions et Ouvrages) technical committee on Alkali-aggregate Reactions in Concrete Structures. This committee deals with the assessment and appraisal of existing alkali-silica reactivity (ASR) in concrete structures.

### 5. Chief accomplishments in 2006:

### **Technical Meeting:**

CAM organized or co-sponsored the following sessions during the IMA2006 meeting in Kobe: (1) Process Mineralogy, (2) Crystals, ceramics and glasses with advanced physico-chemical properties, (3) Bio-Geo interface in minerals, (4) Mineral-water interactions: From microscopic to macroscopic aspects, (5) Environmental and medical mineralogy, and (6) Clays and zeolites: natural and synthetic materials.

### Restructuring and revitalization of the commission:

CAM has developed provisional vision and mission statements and a set of strategic goals to reflect the current needs in applied mineralogy fields. CAM's provisional vision is to provide leadership in knowledge sharing for the broad range of applied mineralogy fields and to offer means for professional development for applied mineralogists. CAM's provisional mission is to build and sustain a strong commission that provides value to its members in alignment with the IMA's vision. This will be achieved by the following strategic goals:

- 1. Strengthening the linkage between IMA-CAM and ICAM;
- Organization of sessions and symposia during the ICAM 2008 meeting in Australia and IMA 2010 meeting in Hungary;



- 1. Investigation of the feasibility of developing and offering modular short courses;
- 1. Organization of workshops and short courses on applied mineralogy:
- Establishment of awards recognizing excellence and outstanding achievements and contributions of CAM members;
- 1. Update of the membership (individual and corporate) and national representatives;
- 1. Development and maintenance of a membership database;
- 1. Inquiry of funding from the industry in the form of sponsoring events, awards, competitions and web-page administration;
- 1. Establishment of sub-commissions on a number of sub-disciplines;
- 1. Promotion of the applied mineralogy field.

As part of the strategic goals listed above, two new sub-commissions were established in order to make the commission more functional in the diverse sub-disciplines it serves. Dr. Maarten Broekmans, a research scientist with the Geological Survey of Norway's Department of Mineral Characterization in Trondheim, Norway has been appointed as the Chair of the sub-commission on mineralogy applied to building materials. He is an Associate Editor of the Materials Characterization journal. Prof. Isabella Memmi has been appointed as the Chair of the sub-commission on cultural heritage and archaeological materials. Prof. Memmi is currently the Head of the Earth Sciences Department at the University of Siena and serves on the board of directors of the Italian Society of Archaeometry.

As part of the restructuring efforts, a past-chair position has been created in order to maintain continuity with the past activities of the commission. The Past-Chair is expected to provide guidance to the commission in setting policy guidelines and strategic planning.

Current members of IMA-CAM executive board:

Chairman: Dogan Paktunc Vice-Chairman: Eric Pirard Secretary: Henrique Kahn Past-Chair: Richard Hagni

Sub-commission Chair (Building Materials): Maarten Broekmans

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

### **Short Courses/Lectures:**

There were no short courses organized by CAM during 2006; however, several CAM executive board members were involved in the following educational activities promoting applied mineralogy and CAM:

- Lectures by Henrique Kahn and his group on mineral characterization techniques at the Universidade de São Paulo (May 2006).
- Lectures by Maarten Broekmans on the characterization of building materials to civil engineers and geologists at the Michigan Technical University (Sept. 2006).
- Lecture by Dogan Paktunc on the advanced mineralogical and materials characterization techniques to metallurgists, process engineers and researchers during the Hydrometallurgy Short Course in Montreal (Oct. 2006).

### Web site:

CAM is evaluating its options to overhaul the current website since CAM is aware of the importance of a website that provides comprehensive and up-to-date content as well as offering easy access and navigation.

There is a suggestion to establish a web-based database for managing archaeometric data such as Raman spectra of pigments, organized in different periods from pre-history to modern times.

### Database of individuals interested in applied mineralogy:

CAM maintains a database listing individuals interested in applied mineralogy.

### Other:

A short article entitled "Applied Mineralogy: Present and Past" by Dick Hagni was published in Elements.

A promotional poster was designed for the commission and displayed during the IMA meeting in Kobe. Flyers based on the poster design were distributed during the IMA meeting.



### 6. Chief Problem Encountered in 2006:

Unavailability of a secure long-term funding makes it very difficult to consider setting up a functional website for CAM.

### 7. Workplan for 2007 and beyond:

In collaboration with IMA-COM and IMA-WGEM, discussions are underway regarding the organization of a joint short course/workshop with the provisional title "Metals in the Earth: from vital resource to environmental hazard". Venues considered include IGC 2008 meeting in Oslo and Goldschmidt 2008 meeting in Vancouver.

A short course with the provisional title "Microscopía Cuantitativa y control de procesos minerals" is being organized by Eric Pirard. It will be held in 2007 at Universidad Catolica del Peru in Lima, Peru and feature an overview of optical and electron microscopy, image analysis and case studies in process mineralogy. The short course will be thought in Spanish.

A short course on quantitative mineralogy will be organized. The short course will feature an in-depth review of the techniques and approaches in the determination of mineral quantities in ores, concentrates, rocks, soil and other materials. It is also hoped that such a short course would act as the spring board for the launch of a round-robin testing of a series of standards for modal and liberation analysis.

Maarten Broekmans will participate in 11th Euroseminar on Microscopy Applied to Building Materials to be held in Porto, Portugal on 5-9 June 2007 and 13th International Conference on Alkali-Aggregate Reaction in Concrete to be held in Trondheim, Norway on 16-19 June 2008.

Isabella Memmi has proposed two future IMA-CAM short courses entitled "Non-conventional analytical techniques in archaeological material characterization" and "Roman and late-antique productive sites in Mediterranean area".

Promotional material such as flyers will be prepared and distributed at various conferences and meetings including Frontiers in Mineral Sciences 2007, Goldschmidt 2007, EMABM 2007, ICAM 2008, IGC 2008 and ICAAR 2008.

Development of a communication plan.

Appointment of sub-commissions chairs for the (1) ceramics, (2) mineral exploration and mine development and (3) medical mineralogy and biomaterials sub-commissions.

### 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 - Ms 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 MINERAL GROWTH AND INTERFACE PROCESSES (CMGIP) CMGIP ANNUAL REPORT TO IUGS

DECEMBER 2006

### **New Officers**

The following nominations were approved during the commission meeting of CMGIP during IMA, Kobe 2006.

- Katsuo Tsukamoto (Professor, Tohoku University, Japan) succeeds outgoing chairperson C. F. Woensdregt (Utrecht University, The Netherlands).
- Andreas Luttge (Associate Professor, Rice University, Texas) succeeds outgoing vice-chairperson K. Tsukamoto
- Jeanne Paquette (Associate Professor, McGill University, Canada) replaces former secretary John Rakovan (Miami University/Ohio, USA).

### SCOPE

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.

### REPORT ON IMA. KOBE 2006

The three sessions sponsored by the CMGIP during the IMA meeting of July 24-28 in Kobe (Japan) attracted 68 contributions. Biomineralization, textures induced by rapid crystallization and interface processes involving nanominerals were mentioned as some of the new frontiers in mineral growth that are also of increasing interest in industry, materials and health sciences. The members present reaffirmed the need to maintain the commission and continue to broaden its representation among IMA member countries.

Our commission successfully sponsored the following scientific sessions from July 23rd to 28th, 2006 during the 19th General Meeting of the International Mineralogical Association (IMA):

- 1. APPLICATION OF NOVEL TECHNIQUES FOR *IN-SITU* OBSERVATION OF CRYSTAL GROWTH AND NUCLEATION. CONVENERS: ANDREAS LUTTGE (RICE UNIV.) AND KATSUO TSUKAMOTO (TOHOKU UNIV.).
- 2. TEXTURE FORMATION AND CRYSTAL GROWTH IN GEOSCIENCES. CONVENERS: MICHIHIKO NAKAMURA (TOHOKU UNIV.), TADAO NISHIYAMA (KUMAMOTO UNIV.) AND ANDREW PUTNIS (UNIV. OF MÜNSTER).
- 3. NUCLEATION AND AGGREGATION OF MACRO- TO NANO-MATERIALS. CONVENERS: LUKAS BAUMGARTNER (UNIV. OF LAUSANNE), MASAMICHI ISHIKAWA (TOKYO INST. OF TECHNOLOGY)



### **BUSINESS MEETING**

Here is a summary of the business meetings of the Commission for Mineral Growth and Interface Processes, held on July 25 and 27 in Kobe, Japan, during the 19th General Meeting of the International Mineralogical Association.

Present: K. Tsukamoto, A. Luttge, J. Rakovan, I. Sunagawa, E. Scandale, J.M. Garcia Ruiz, A. Putnis, A. Baronnet, I. Bonev, J. Paquette, M. Posfai.

Chair: Katsuo Tsukamoto (Tohoku University, Japan). Present: A. Luttge, J. Rakovan, I. Sunagawa, E. Scandale, J.M. Garcia Ruiz, A. Putnis, A. Baronnet, I. Bonev, J. Paquette, M. Posfai.

1. The three sessions sponsored by the CMGIP during the IMA meeting of July 24-28 in Kobe (Japan) attracted 68 contributions. Biomineralization, textures induced by rapid crystallization and interface processes involving nanominerals were mentioned as some of the new frontiers in mineral growth that are also of increasing interest in industry, materials and health

sciences. The members present reaffirmed the need to maintain the commission and continue to broaden its

representation among IMA member countries.

- 2. The commission also wishes to bring to your attention the following events:
- 1) The 15th International Conference on Crystal Growth (in conjunction with the 13th Conference on Vapor Growth and Epitaxy) will be held on August 12 - 17, 2007, Salt Lake City, Utah, USA. Abstract submission January 1st, 2007. Preliminary on details are available http://www.crystalgrowth.org/conferences/iccg15/index.php
- 2) An International Symposium on calcite growth and interface processes, organized by students and sponsored by Tohoku University, to be held before March 2007. Further details will follow.
- 3) The 2nd International Conference on Crystallogenesis and Mineralogy will be held at the Department of Crystallography and Department of Mineralogy of Saint-Petersbourg State University. October 1-5, 2007. Registration will begin on October 1st. 2006. Contact: KM2007@minsoc.ru for further information.

Plans were also discussed for some future events:

4) We wish to identify researchers interested in organizing a session related to mineral interface processes at the upcoming Goldschmidt conferences. The 2007 meeting will be held in Cologne, Germany, August 19-24, under the theme "Atoms to Planets". The scope of the program is given at http://www.goldschmidt2007.org/symposia.php

The 2008 Goldscmidt conference ("From Sea to Sky") will take place in Vancouver, Canada, July 13-18.

- 5) Eugenio Scandale (U. Bari, Italy) offered to lead the planning of an international summer school on "Crystal Growth and Interface Processes" in 2007 or 2008 in Bari, Italy. The project would involve the publication of course notes/chapters as a volume in the EMU Notes series or the MSA Reviews in Mineralogy.
- 6) Andrew Putnis (U. Muenster, Germany) will act as liaison with the IGC 2008 meeting (Oslo) and organize a session on crystal growth.
- 7) Plans for an eventual 2nd International Symposium on Interface Mineralogy (2009?) were also considered. Andreas Luttge (Rice U., USA) offered to look into the logistics of holding such an event in Houston, USA.



### **LIST OF COMMISSION MEMBERS**

### Officers:

Katsuo Tsukamoto Andreas Lüttge Jeanne Paquette

### **Members**

Martin Dietzel Ivan Bonev Susan Stipp Ali A. Omar Alain Baronnet Andrew Putnis, Mihály Pósfai K. Byrappa Cornelis F. Rodney H Grapes, Eugeniusz Galuskin Arkady E. Glikin R. K. W. Merkle Dr. Manuel Prieto Henrik Skogby **Bernard Grobety** John Rakovan



### IMA Commission on Museums (CM) Annual Report for 2006 to IUGS

The 2006 annual report comprises the minutes of the two business meetings held in Kobe

### Minutes from the CM Commission Business Meeting, Kobe, 25<sup>th</sup> July 2006.

This meeting was held during the IMA International Conference in Kobe, Japan on 25<sup>th</sup> July 2006 at 3.30 pm at the Kobe International Conference Centre.

### 8 Commission members or their representatives attended:

Lydie Touret (Chairperson) (France), Kay Schürmann (Germany), Dermot Henry (Secretary) (Australia), Dana Pop (Romania), Erzsebet Toth (Hungary, in lieu of Gabor Papp), George Harlow (USA, in lieu of Anthony Kampf), Michiaki Bunno (Japan) & Milan Novack (Czech Republic, in lieu of Jan Cempirek).

Observers: Brian Jackson (Scotland), Ritsuro Miyawaki (Japan), Gian Carlo Parodi (France)

Lydie Touret (Chairperson) welcomed people to the meeting and thanked Ritsuro Miyawaki for organising the Mineralogical and Geological Museum session at the IMA. Participants agreed that the lecture session was of a high standard.

### **Election of New Secretary**

Kay Schürmann (Germany) notified the Commission at the M&M5 meeting, held in Paris in Sept 2004, that he would step down as Secretary of the Commission at this IMA meeting in Kobe. Lydie Touret thanked Kay for his contributions to the Commission since his election as Secretary at MM3 Budapest in 1996. Dermot Henry (Australia) was elected Secretary. Kay Schürmann kindly offered to take minutes at the annual meeting of curators held at the Munich show.

### **National Representatives:**

Milan Novak (Czech Republic) announced that he had been replaced as National Representative by Jan Cempirek (Moravian Museum, Czeck Republic).

### M&M6 Mineralogy and Museums conference in 2008.

Lydie Touret circulated two proposals to host M&M6. The proposals were from Jeanna Polyarnaya (Director of Mining Museum) at the Saint Petersburg State Mining Institute in Russia and James Hurlbut (Research Associate, Denver Museum of Nature and Science) on behalf of the Colorado School of Mines, USA.

It was agreed that both were attractive offers, however, the eligible National Representatives voted for the Colorado School of Mines to host M&M6. Lydie Touret will notify the School of Mines and offer assistance to their organising committee. Lydie will also write to the Saint Petersburg State Mining Museum to thank them for their submission.

MM6 will be held from Sept 7<sup>th</sup> to 9 <sup>th</sup> , 2008 at the Green Centre Facility, at the Colorado School of Mines campus in Golden Colorado. Field trips will be planned to run prior to the meeting and the Denver Gem and Mineral Show will open on the 11th Sept.

For the MM6 Commission meeting it is hope that there will proposals to host MM7 in 2012. This will enable the host country to have greater lead time to organise the conference.

### **Data Standards & Sharing database information**

At the IMA Kobe conference *Mineralogical and Geological Museums* session, sponsored by the Commission on Museums, George Harlow presented a lecture *Toward mineral database standards for World-Wide-Web utilization*. George raised the issues of lack of data standards for mineralogy databases, the need for a common set of definitions, the pressure to share information and link databases via the WWW and the need to determine how much data we share. These issues were discussed at the Business meeting and it was agreed this was a topic the Commission should investigate. George Harlow and Dermot Henry will put



together a discussion paper for circulation which looks at the issue surrounding the development of standards and data interchange protocols. There are some models within the biological sciences for exchanging data from a wide range of databases that can be examined.

George Harlow also mentioned that there may be funding available to assist museums link databases.

### **Future meeting**

Lydie Touret discussed business for the meeting to be held on 27 July 2006 at Kobe.

Meeting closed at 4.30 pm

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### Minutes from the CM Commission Business Meeting, Kobe, 27<sup>th</sup> July 2006.

The meeting was held during the IMA International Conference in Kobe, Japan on 27<sup>th</sup> July 2006 at 3.30 pm at the Kobe International Conference Centre.

### 8 Commission members or their representatives attended:

Lydie Touret (Chairperson) (France), Kay Schürmann (Gemany), Dermot Henry (Secretary) (Australia), Dana Pop (Romania), Erzsebet Toth (Hungary, in lieu of Gabor Papp); George Harlow (USA, in lieu of Anthony Kampf), Ritsuro Miyawaki (Japan) in lieu of Michiaki Bunno)

Observers: Brian Jackson (Scotland), Bill Birch (Australia) & Gian Carlo Parodi (France).

Lydie Touret welcomed people to the meeting and summarized the discussions of the previous meeting.

### Catalogue of Type minerals (CTMS)

Lydie Touret tabled a report by Nicholas Meisser, (Chairman of the CM-subcommission on CTMS).

The reported listed the following:

### 1. Alterations of the CTMS during the past two years.

H. A. Stalder (Natural History Museum Bern, Switzerland), former chairman of the CTMS subcommission, has continued to update the Catalogue. Recent additions or corrections include Greenland, USA, Italy, Switzerland, Germany, Russia and South America. Tony Stalder also compiled a crystallographic addendum for the 14 polysomes of hogbomite-, nigerite-, and taffeeite-groups. This addendum was mailed to Mr.Alexander Hölzel to improve the MDAT-Lite 5.0 database.

### 2. New Information on type mineral specimens

Germany: Dr Jochen Schlüter (Hamburg Museum) has developed a website for the catalogue of type minerals deposited in German mineralogical institutions (<a href="http://www.rrz.uni-hamburg.de/mpi/typkatalog/index.html">http://www.rrz.uni-hamburg.de/mpi/typkatalog/index.html</a>). Some corrections and improvements concerning type specimens from Germany were also included in the MDAT database.

**Switzerland**: A catalogue of type specimens deposited in the Museum of Basel (29) and the Lausanne Museum (121) was produced in 2004–5. These will be available shortly as PDF files on the respective Museum websites.

### 3. Book on Mineral Species discovered in Switzerland (and species named after Swiss)

Dr Philippe Roth (Zurich) has been working on this book for a number of years. A PDF version of the book has been forwarded to Nicolas Meisser for corrections and suggestions. The book also includes exhaustive historical research on the type locality for tremolite.

### **Data Standards & Sharing database information**

There was some further discussion on the need for data standards and the production of data for the WWW. As discussed at the previous meeting George Harlow and Dermot Henry will develop a discussion paper and examine the way databases are linked and data exported to the web by the biological sciences. It was agreed that countries that do not have National Representatives such as Luxembourg should be kept informed by the Commission and through the SMMP group. Similarly if National Representatives are not circulating information please contact Dermot Henry (Secretary) directly (<a href="mailto:dhenry@museum.vic.gov.au">dhenry@museum.vic.gov.au</a>) and he will add you to the mailing list.

Meeting closed at 4 pm.



### **IMA**

### Commission in New Minerals, Nomenclature and Classification (CNMNC) Annual Report for 2006 to IUGS

(Prepared by the Secretary, William Birch)

### 1. COMMISSION ON NEW MINERALS, NOMENCLATURE AND CLASSIFICATION (formerly COMMISSION ON NEW MINERALS AND MINERAL NAMES)

### Officers

Chairman: Ernst A.J. Burke (Amsterdam, The Netherlands)

Vice Chairmen: Giovanni Ferraris (Torino, Italy) (until July 2006); Stanislav Filatov (St Petersburg, Russia)

and Frédéric Hatert (Liege, Belgium) (both from July 2006).

Secretary: William Birch (Melbourne, Australia)

### 2. OVERALL OBJECTIVES

The Commission on New Minerals and Mineral Names was established in 1959 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. Following the CNMMN's merger in August 2006 with the Commission on Classification of Minerals, the new CNMNC will also coordinate the procedures for classification of minerals.

### 3. ORGANISATION

### Officers for 2006

(see above). Professor Ferraris retired as Vice Chairman at the IMA meeting in Kobe in July. His two replacements, Professor Filatov and Dr Hatert, will have duties which reflect the changed work of the new CNMNC following the merger of the two former commissions.

### **Business meetings**

The CNMNC holds its business meetings every two years, when its members participate in IMA General Meetings and Mineralogy and Museums Conferences, each of which are held every four years. The CNMNC last met in Kobe in July 2006. No meetings are scheduled in 2007.

### **Main activities**

The former CNMMN partitioned its workload amongst the three officers: the chairman prepared the new-mineral proposals, the vice-chairman handled the proposed changes to existing nomenclature (discreditations and redefinitions), and the secretary coordinated the subcommittees created to examine the nomenclature of mineral groups. Under the new Commission arrangements currently under discussion, it is likely that the role of the Chairman will essentially remain the same, but the other office-bearers' duties and how they are to be apportioned have not been finalised. The 30 voting members of the former CNMMN, now transferred to the new 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 via the internet, so postage costs have largely been eliminated. 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

The CNMMN participated in the 19<sup>th</sup> General Meeting of the IMA in Kobe, Japan.



### 5. CHIEF ACCOMPLISHMENTS IN 2006

### **Activities**

By the end of 2006, the CNMNC will handle about 60 new-mineral proposals, approximately the same number as in the previous few years (64 proposals in 2005; 59 in 2004, 70 in 2003, 67 in 2002) in batches of, on average, five proposals per month. Members will also have deliberated on five proposals involving mineral nomenclature revisions, the most substantial being a new nomenclature system for the pearceite–polybasite group and for minerals in the monazite group. In addition, members approved the discreditation of about 130 minerals and names on the Commission's listing of 'grandfathered, questionable and non-approved' minerals.

Seven CNMMN subcommittees were active during 2006:

- 1. Sulfosalt (Chairman: Yves Moelo, France)
- 2. Pyrochlore (Chairman: Scott Ercit, Canada)
- 3. Tourmaline (Chairman: Milan Novák, Czech Republic)
- 4. Alunite (Chairman: Peter Bayliss, Australia)
- 5. Epidote (Chairman: Thomas Armbruster, Switzerland)
- 6. Amphibole (Chairpersons, Frank Hawthorne and Roberta Oberti, Canada)
- 7. Unnamed minerals (Chairman: Dorian Smith, Canada)
- 8. Aenigmatite (Chairman: Dr Ed Grew, USA).

Three of these subcommittees finalised their reports in 2006. Members approved both the Epidote and Unnamed Minerals reports and these have been submitted for publication, with the former now published (see below). The very substantial Sulfosalts report is currently being considered by the CNMNC members. After a long period of chairmanship under Bernard Leake, the Amphibole Subcommittee was re-established in 2006 under Frank Hawthorne and Roberta Oberti. The Tourmaline report will be completed before the end of the year. The Aenigmatite group subcommittee was established following the IMA meeting in Kobe.

### Administration

A major development during 2006 was the approval of the merger of the former CNMNC and CCM, to form the Commission on New Minerals, Nomenclature and Classification (CNMNC). The merger received the blessing of the IMA Council and delegates at the IMA Business Meeting in Kobe in July. Members of both former commissions had previously approved the merger in principle. Discussion is currently underway as to how the expanded responsibilities of the CNMNC will be handled by the office-bearers and how to increase the participation rate of the members in the voting procedures.

### Outreach

The Chairman regularly participates in discussion on minerals and their nomenclature in the Message Board of the website <a href="www.mindat.org">www.mindat.org</a>, a forum aimed at collectors and amateur mineralogists. (See also Publications)

### **Technical meetings**

The only technical meeting held in 2006 was the CNMMN's sponsorship of a session entitled 'New Minerals and Mineral Classification' at the 19<sup>th</sup> General Meeting of the IMA in Kobe.

### **Publication**

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

- 1. Recommended nomenclature of epidote-group minerals. Armbruster, T. *et al.*, 2006: European Journal of Mineralogy, 18, 551–567.
- 2. The arrojadite enigma: I. A new formula and a new model for the arrojadite structure. Camara, F. et al., 2006: American Mineralogist, 91, 1249–1259.
- 3. The arrojadite enigma: II. Compositional space group, new members, and nomenclature of the group. Chopin, C. *et al.*, 2006: American Mineralogist, 91, 1260–1270.



4. New minerals approved in 2005 and nomenclature modifications approved in 2005 by the Commission on New Minerals and Mineral Names, International Mineralogical Association. Burke, E. A. J. and Ferraris, G., 2006: Canadian Mineralogist, 44, 547–552.

The website of the CNMNC is now an important vehicle for communication. Each month, it publishes its decisions on new minerals and changes in nomenclature. Also published in 2006 were the lists of new minerals approved in 2005, and of agreed mineral names published before 1959.

### **Attributions**

The retiring Vice Chairman, Professor Giovanni Ferraris, has worked tirelessly for the CNMMN and provided support and advice for his fellow office-bearers since 1998. The retiring Chairman of the Amphibole Subcommittee, Professor Bernard Leake, has also provided immense service to the Commission for several decades.

### 6. PROBLEMS ENCOUNTERED IN 2006

Generally the work of the Commission proceeded smoothly in 2006. However, both the Chairman and the retiring Vice Chairman drew attention to the consistent failure of some members to vote and comment on proposals for new minerals and for redefinitions. This seems to be an ongoing problem partly related to the heavy work load of the Commission

For many years, the journal Canadian Mineralogist has provided great support for the Commission by publishing its official reports without requesting page charges. In 2006, the Editor of the journal informed the Commission that from now on such charges would be required. The IMA Council decided that it was not able to provide funds to cover these charges, so the situation remains uncertain.

### 7. WORKPLAN FOR 2007

### **Activities**

It is anticipated that the number of new mineral proposals, nomenclature revisions and discreditations will remain at much the same levels in 2007 as in 2006. The nomenclature schemes proposed for the sulfosalt and tourmaline groups will be subject to voting early in the year. It is hoped that the remaining nomenclature subcommittees will submit their final reports later in 2007.

Besides these ongoing duties, there will be a major attempt made to rationalize the existing mineral nomenclature, in particular the amphibole group. A complete archive of all CNMMN activities from 1959 is also being progressively assembled.

There are no current plans for participation in any conferences in 2007.

### 8. ADMINISTRATION

As well as the reassignment of the duties of the office-bearers, a possible new system of voting by CNMNC members is being formulated. This may involve the members being allocated to a number of standing subcommittees based broadly on mineral classes. Such a system would diminish the workload of individual members but without sacrificing any of the status and authority of Commission decisions. It is envisaged that a new system will be implemented during 2007 after consultation with the members.

The amalgamation between CNMMN and CCM may also lead to changes in the national representatives, although this has not so far been addressed by the new CNMNC office-bearers.

### 9. OFFICERS AND NATIONAL REPRESENTATIVES OFFICERS

Ernst A.J. BURKE Prof. Stanislav FILATOV Dr Frédéric HATERT William (Bill) D. Birch Chairmen Emeritus



Joel D. Grice (1994–2002) Joe A. Mandarino (1982–1994) Akira Kato (1975–1982)

**MEMBERS** Daniel ATENCIO Vladimir BERMANEC Andrei G. BULAKH Pete J. DUN Mohamed A. EL-SHARKAWY T. Scott ERCIT Stefan GRAESER **UIF HÅLENIUS** Frédéric HATERT Ole JOHNSEN Paul KELLER **Kees LINTHOUT** Andrzej MANECKI Satoshi MATSUBARA Jeffery MAUK Gabor PAPP Gian Carlo PARODI Marco PASERO Franz PERTLIK Allan PRING **Gunnar RAADE** Jiri SEJKORA Yaakov NATHAN Ragnar TÖRNROOS

Gheorghe UDUBASA

Pavel UHE



# IMA Commission on Ore Mineralogy (COM) Annual Report for the year 2006 to IUGS

Oslo, Norway, 6<sup>th</sup> November 2006

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

This report covers aspects of IMA-COM activities since the date of the last annual report (November 2005).

### 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 <a href="mailto:nigelc@nhm.uio.no">nigelc@nhm.uio.no</a>

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

Secretary: position currently vacant

The person nominated for the position of Secretary withdrew his candidacy and we remain without a Secretary at the present time. New nominations are now being sought, with a postal vote to be undertaken once candidates come forward.

### 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 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 cosponsored a session at the  $32^{nd}$  International Geological Congress (IGC). IMA-COM will also work with the organizing committee of the  $33^{rd}$  IGC (2008).

### COM activities in 2006

A business meeting of IMA-COM was held during the IMA meeting in Kobe, Japan, July 2006. The COM website remains the main vehicle for communication with members.

Scientific session during the IMA meeting in Kobe, Japan, July 2006



Session 16: 'Mineralogy of Ore Deposits'. Conveners were: Nigel J. Cook (Norway), Kari Kojonen (Finland), Hiroharu Matsueda (Japan), Roland K. W. Merkle (South Africa) and Masaaki Shimizu (Japan). A total of 34 abstracts were accepted and published in the Program and Abstracts volume; 17 oral presentations were given (Wednesday 26<sup>th</sup> July) and 17 poster presentations were given (Thursday 27<sup>th</sup> July).

### **COM** website

COM's website is hosted at the Geological Survey of Finland; <a href="http://www.gsf.fi/domestic/com/ima-com.htm">http://www.gsf.fi/domestic/com/ima-com.htm</a>. 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 2006, the website has been updated.

### Report of COM sub-commission on sulphosalts

The sulphosalt sub-commission of COM (leaders Yves Moëlo and Emil Makovicky) presented the final draft manuscript of their full-length report during the Business Meeting in Kobe. The final version will be submitted for publication in leading mineralogical journals and an abridged version will be made available for download from the COM website in the near future.

### Summary of main activities in the period 2002-2006

### **Business meetings**

COM holds a Business Meeting every two years, coinciding with the International Geological congress and the General Meeting of the International Mineralogical Association.

### **COM** website

COM created a new, 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, 7<sup>th</sup>-11<sup>th</sup> April 2003. Scientific session 'Gold and Platinum Group Minerals: from experimental mineralogy and microanalysis to deposit Modelling'.
- (B) Scientific sessions at the 32<sup>nd</sup> International Geological Congress, Florence, August 2004 COM organised three scientific sessions for the 32<sup>nd</sup> 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 21<sup>st</sup> 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 22<sup>nd</sup> August.
- 'Mineral Deposits' session on '*Conventional and unconventional platinum group mineral deposits*'. The session was held on Friday 27<sup>th</sup> August.
- (C) Joint meeting of IMA-COM and the Applied Mineralogy Group of the Mineralogical Society (U.K.), 7<sup>th</sup> 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 (6-7<sup>th</sup> 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 10<sup>th</sup> 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 6<sup>th</sup> 2005), organized by Prof. Louis J. Cabri. Five invited speakers delivered the lectures.



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

Session 16: 'Mineralogy of Ore Deposits'.

### **Reports of COM sub-commissions**

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

### Involvement in new 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". The project (IGCP 486; 2003-2008) has been approved. In the assessment document, the evaluation committee noted, positively, that the project had the backing of an IMA commission.

### 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.

A discussion document containing a list of standardized abbreviations of ore minerals was prepared and circulated.

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 2007, with perspectives for 2008-2010

In the next term (2007-2010), COM plans to organize Short Courses and Workshops - preferably in connection of large international scientific meetings, but also as stand-alone regional meetings, especially in such countries, where they have not been held previously (particularly in developing countries).

### **COM Scientific sessions**

IMA-COM will co-organize three sessions at the 33rd International Geological Congress (Oslo, August 2008)

- 1. Metals in the Earth: from vital resource to environmental hazards (jointly organized by CAM, COM and WGEM). Conveners: David Vaughan, Dogan Pactunc, Kari Kojonen.
- 2. Au-Ag telluride-selenide deposits (jointly organized by COM and IGCP-486). Conveners: Nigel Cook, Kari Kojonen and others.
- 3. Platinum Group Mineralogy. Convenors: Kari Kojonen, Andy McDonald and others.

### **COM Short courses**

Three COM short courses are currently in the early planning stage.

- Short course within the framework of the CIM (Canadian Institute of Mining, Metallurgy and Petroleum) Conference and Exhibition, April 29 May 2, 2007, Montreal, Canada.
- Short Course in Advanced Ore Mineralogy, Nanjing, Peoples Republic of China (2008)
- Short Course in Advanced Ore Mineralogy in Kharagpur, India (2009?)

### 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 20<sup>th</sup> 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.

Nigel Cook Chairman IMA-COM

### IMA-COM Officers 2006-2010

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### IMA Commission on Physics of Minerals (CPM) Annual report for the year 2006 to IUGS

Report of CPM activity in 2006: 2006/11/15

### 1. Commision of Physics of Minerals

The current officers of the CPM (http://www.sbg.ac.at/min/welcome.htm) is Georg Amthauer (georg.amthauer@sbg.ac.at) as a Chair, Eiji Ohtani (ohtani@mail.tains.tohoku.ac.jp) as Vice-Chairman and Daniel Neuville (neuville@ipgp.jussieu.fr) as Secretary Besides the three Officers, the commission has 9 members.

### 2. Overall objectives of the Com./WG

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 by workshop, conferences and publications.

### 3. Chief accomplishments in 2006

- (1) CPM played following active roles in international and local meetings during 2005-2006. CPM organized and convened sessions in the following meetings:
- 1) At the AGU2005 fall meeting (San Francisco, Dec.5-9, 2005), a session on Molten Earth: Liquid in the Earth's Interior was organized b Agee and Stixrude, and Ohtani was made an invited talk on Melt Crystal density crossover in the Earth;
- 2) CPM organized also several sessions, High Pressure Earth Science and Physics and Chemistry of Earth's Minerals at the 2006 annual meeting of JPGU (Japan Geoscience Union) held on 14<sup>th</sup> –18<sup>th</sup>, May, 2006, Makuhari, Chiba).
- 3) CPM involved session planning of 2006IMA-Kobe meeting as a member of the organizing committee and program committee as follows: CPM submitted five proposed sessions on Mineral Physics for the IMA2006Kobe meeting (23th-28<sup>th</sup> July, 2006), and sponsored two mineral physics sessions; Mineralogy and dynamics of the mantle and core (Convened by Bass, Hirose, Ohtani, Rubie) amd Structure and physical properties of melts and glasses (Convened Neuville) by Henderson, Kanzaki, Neuville) and is going to make an invited talk.
- 4) CPM also took an initiative by convening a session on perovskite and post-perovskite and mantle dynamics (E. Ohtani convened, and acted as a session) in 2006 Goldschmidt conference held in Melbourne (27th August-1<sup>st</sup> September, 2006).
- 5) MSA short course was held at Verbania on 1<sup>st</sup>-4<sup>th</sup>, October, 2006, Italy. This meeting was organized by Hans Keppler and Joe Smyth. Ohtani made an invited lecture from CPM on the effect of water on mantle phase transitions.
- (2) Administration Business Meeting: CPM made a business meeting at 2006IMA Kobe meeting, Kobe, Japan, and discussed the details of the sessions to be proposed for the IGC 2008 Oslo meeting. CPM submit three proposed sessions on High Pressure Mineral Physics (Convened by Ohtani), Glass and melt (convened by , and spectroscopy in the IGC Oslo meeting,
- (3) <u>Bulletins, News, and Website:</u> Website of CPM is established in 2003 and continuously maintained for communication of the members.

Publication: A member of CPM (Ohtani) organized a GSA Monograph book "Advance in High Pressure Mineralogy" containing 13 review papers on high pressure mineral physics following the IMA session held in 2004 IGC Florence meeting. The book is officially accepted as GSA monograph No. 421 on 13<sup>th</sup> August, and will be appeared in March-April, 2007.



4. Workplan for 2007

Website: Website will be renewed and report updated new information of the forthcoming related meetings to be held in the world.

Publication and Books - Special publication: Advance in High Pressure Mineralogy (edited by E. Ohtani) was accepted for publication as GSA monograph volume No. 421, and will be distributed in March or April, 2007.

For the forthcoming meetings,

- 1) 2006AGU fall meeting 11-15<sup>th</sup> Dec. 2006 at San Francisco: MR13A: Composition and Dynamics of Earth's Mantle: Current Frontiers and Grand Challenges in Elasticity, Phase Transitions, and Rheology Studies (Oral) is organized by Lin, Ohtani, Prewitt, Bass, Karato,
- 2) Amorphous materials: properties, structure and durability, Convenor: Daniel Neuville (Paris; neuville@ipgp.jussieu.fr). Co-convenors: Grant Henderson (Toronto; henders@geology.utoronto.ca), Donald Dingwell (Munich; dingwell@uni-muenchen.de) in Frontiers in Mineral Sciences, Cambridge, 26-28, June, 2007, Mineralogical Society meeting
- 3) 2007 HPMPS-7 (7<sup>th</sup> High Pressure Mineral Physics meeting) is organized by Andrault, Brown, Ohtani (Chair), Rubie, and Wang on 8<sup>th</sup>-12<sup>th</sup>, May, at Matsushima, Japan.
- 4) 2007 JPGU (Japan Geoscience union) annual meeting will be held at Makuhari, Chiba, Japan on 19-24th, May, 2007. CPM organizes two sessions on High Pressure Earth Science and Physics and Chemistry of Earth's Minerals in this JPGU meeting.

### **5 List of Officers and National Representatives**

The current officers of the CPM (http://www.sbg.ac.at/min/welcome.htm) is Georg Amthauer (georg.amthauer@sbg.ac.at) as a Chair. Eiii Ohtani as Vice-Chairman

(ohtani@mail.tains.tohoku.ac.jp) and Daniel Neuville as Secretary (neuville@jpgp.jussieu.fr). Besides the three Officers, the commission has 9 members.

Georg AMTHAUER (Chairman)

Institut fuer Mineralogie, Universitaet Salzburg, Hellbrunnerstrasse 34, A-5020 Salzburg Tel: ++43-662-8044-5402; Fax: ++43-662-8044-622; E-mail: Georg.Amthauer@mh.sbg.ac.at Eiji OHTANI (Vice-Chairman),

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Takamitsu YAMANAKA (Prof. Yamanaka is the next president of IMA, and a member will be replaced, please confirm!)

Department of Earth and Space Science, Osaka University, Machikaneyama-cho 1-1, Toyonaka 560-0043; TEL,FAX +81-6-6850-5793; E-mail: <a href="mailto:yamanaka@hpc.cmc.osaka-u.ac.jp">yamanaka@hpc.cmc.osaka-u.ac.jp</a>



# IMA Working Group on Environmental Mineralogy and Geochemistry (WGEMG) Annual report for the year 2006 to IUGS

The past decade has seen the emergence of a new field of research activity within the Earth and mineral sciences; one that is best termed "environmental mineralogy and geochemistry". A working definition of this field is as follows:

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.

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 21<sup>st</sup> century.

### WGEMG abbreviated Minutes held in Kobe

A business meeting of the *Working Group on Environmental Mineralogy and Geochemistry* was held in July, 2006, at the IMA meeting in Kobe, Japan.

Acting Chair: DJ Vaughan, University of Manchester, UK Acting Secretary: MC Warren, University of Manchester, UK

The Working Group was first proposed by Ian Parsons and the IMA Council two years ago. David Vaughan (DJV) reported that activities of the embryonic Group to date have included organizing a session on "Mineralogy and Geochemistry of Acid Mine Drainage and Metalliferous Minewastes" at Goldschmidt 2005 (Idaho); publication of a collection of papers as a special part-issue of *Applied Geochemistry* (Vol 21, pp 1249-1334, 2006), and organization of the session on "Environmental and Medical Mineralogy" at Kobe.

1. **Election of Officers:** The following were elected: Chair David Vaughan (UK); Vice-Chair Tom Sato (Japan); Secretary John Jambor (Canada)

International Mineralogical Association - 2006 IMA annual report to IUGS : Appendix [Tables - Annual reports of IMA Commissions and Working Groups- Elements- Minutes of the Kobe meeting]

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- Relevant conferences. Involvement in convening sessions at future conferences was agreed to be an important WGEMG activity; possibilities mentioned were:
  - Goldschmidt 2007, Cologne possibility of mini symposium?
  - EGU, Vienna, 2007
  - Frontiers in Mineral Sciences 2007, Cambridge
  - Water–Rock Interactions 2007, Kunming, China
  - Goldschmidt 2008, Vancouver
  - IGC 2008, Oslo
- 3. **Scope and definition of WGEMG.** Discussion of how to define the scope of the Group and the unique features of environmental mineralogy included the following suggestions: (1) Health (noted that GSA has just started a 'Geology and Health' group); (2) Hazardous wastes; (3) Effects on or by man; (4) Effects at the nanoscale and relationships with crystal structure; (4) Complexity of environmental problems; (5) Examples of the use of the diverse techniques available; (6) Problems at interfaces with other fields, e.g., biosciences; (7) Minerals, in contact with liquids and gases when necessary, but *not* solely in non-solid phases.

  As the potential scope is so wide, it was suggested that conference sessions have a theme, such as
  - As the potential scope is so wide, it was suggested that conference sessions have a theme, such as that on Acid Mine Drainage at Goldschmidt 2005. The scales at which research is typically conducted vary widely from atomic to global and it may be beneficial to combine these within a topic whenever possible.
- 4. The **purpose of the WGEMG** was discussed, as the Group should not only focus on conferences but also have the wider objective of encouraging interest in mineralogy by explaining interesting problems. The mission should be to develop and raise the profile of WGEMG within IMA and other communities (and meetings) by targeting particular themes (e.g., acid mine drainage).
- 5. Other possible activities
  - 5.1.Short courses
  - 5.2. Explaining the initiative and calling for expressions of interest, to help to clarify the Group's objectives. Specific actions: (1) a request for half a page in Elements, and (2) DJV will prepare a definition / mission statement.
  - 5.3. Development of an internet presence, including a mailing list:
  - 5.4. Building a list of classic references and primers to help those new to the subject to enter the field.
  - 5.5. Working towards a themed issue of Elements.
  - 5.6. Determining suitable topics of themed conference sessions. Medical mineralogy was suggested (but see Rev. Mineral. & Geochem. short course to be held in December 2006); something on this topic is also planned for IGC 2008.



## IMA Working Group on Inclusion in Minerals (WGIM) Annual report for the year 2006 to IUGS

Serguey Smirnov, Chairman	
Pei Ni, Secretary	

The WGIM co-organized and co-sponsored the first ACROFI (the First Conference on Asian Current Research of Fluid Inclusions) with Nanjing University, China in May 2006. 263 abstracts were included in the abstract volume, which was printed on paper and also put on website for public accessing (<a href="http://es.nju.edu.cn/acrofi/acr.html">http://es.nju.edu.cn/acrofi/acr.html</a>).182 attendees from 14 countries of Asia (China, Russian, India, Japan, Korea, Thailand), Europe (UK, France, Germany, Austrial), North America (USA, Canada), Africa (Tunisia) and Australia represented their current achievements in fluid, melt and mineral inclusion studies of different magmatic, hydrothermal, sedimentary systems. Significant part of presentations showed the progress of inclusion study in ore, oil and gas exploration. Oral and poster presentations displayed the new trends in application of thermodynamic modelling and experiment for the study of fluid inclusions in minerals.

The ACROFI I was successful in establishing connections among inclusionists in Asia and other regions in the world, providing a forum for inclusion researchers and promoting inclusion studies in Asia and the rest of the world. In view of the resounding success of ACROFI–I, the represents from different Asian countries hold a short meeting during ACROFI-I and decide ACROFI -II will be held in Haragpur, India in November 2008.

The WGIM sponsored and convened the Session 17 (Fluid and melt inclusions) for the 19<sup>th</sup> IMA in Kobe, Japan in July 2006. 14 abstracts were submitted from 4 countries (China, Germany, Japan and Poland). There will be 5 oral presentations 8 posters and 1 had been canceled. Zhaolin Li and Kenichi Hoshino (Hiroshima University, Japan) are the chairpersons of the Session 17.

During the 19<sup>th</sup> IMA general meeting (Kobe, Japan), Dr. S. Smirnov (Russian) and Prof. Pei Ni (China) were elected as the Chairman and Secretary respectively for the next term of WGIM, IMA(2006-2010). Dr. S. Smirnov and Prof. Pei Ni met on Aug.2006 during the 16<sup>th</sup> Annual V.M.Goldschmidt conference, Melbourne, Australia and discussed the working plan of WGIM during their tenure of office (from 2006 to 2010).



## IMA Working Group on Mineral Equilibria (WGME) Annual report for the year 2006

Title of the Working Group: Working Group on Mineral Equilibria

### Officers:

Chair of the WGME: Prof. Leonid L. Perchuk, Moscow State University, Moscow, Russia.

Vise-chair of the WGME: Prof. M. Akaogi, Gakushuin University, Tokyo, Japan.

*Executive secretary of the MGME*: Dr. Oleg G. Safonov (reporter), Institute of Experimental Mineralogy, Russia.

National representatives: H.-J. Massone (University of Stuttgart, Germany), S. Poli (University of Milan, Italy), C. Chopin (E.N.S., France), S. K. Saxena (University of Florida, USA).

### The main activities during 2006

The WGME organized and participated in the following events:

- (1) Two special sessions at European Geoscience Union Meeting (EGU-06), 1-8 April, Vienna, Austria: The first session "Rates of tectono-metamorphic processes: insights from observations and numerical modeling" (Conveners: Dr. Taras V. Gerya and Prof. Leonid L. Perchuk) included 5 oral and 11 poster presentations. The second session "Experiment at HP-HT: application in geosciences" (Conveners: Prof. Leonid L. Perchuk and Dr. Oleg G. Safonov) included 5 oral and 14 poster presentations.
- (2) Annual International School on Geosciences 2006 (ISES-06), 20-25 August, Odessa, Ukraine. More then 20 young scientists and students from Ukrainian (Odessa, Kiev and Lvov) universities and Moscow State University have attended the meeting this year. Both teaching and scientific lectures were presented by lecturers from Moscow (Russia) and Frankfurt (Germany).
- (3) A session at 19th General Meeting of International Mienralogical Association, July 23-28, Kobe, Japan. The session title was "Phase transitions and thermodynamic modeling of minerals and rocks" (Conveners: M. Akaogi, Y. Fei, S. Poli and S. K. Saxena). The session included 13 oral presentations and 8 poster papers.

### Workplan for 2007

- (1) The WGME is organizing two special sessions at European Geoscience Union Meeting (EGU-07), 15-20 April, Vienna, Austria:
- "BEHAVIOR OF SUBSTANCE AT EXTREME CONDITIONS IN NATURE AND LABORATORY" (Conveners: Prof. Leonid L. Perchuk and Dr. Oleg G. Safonov).
- "Metamorphic and magmatic consequences of ultra-deep subduction" (Conveners: Dr. Taras V. Gerya and Prof. Leonid L. Perchuk).
- (2) Annual International School on Geosciences 2007 (ISES-07), 1-7 September, Odessa, Ukraine.
- (3) Joint meeting of WGME and the Program Lithosphere "High-pressure metamorphism", 1-7 September, Odessa, Ukraine.

Executive secretary of the WGME

Dr. Oleg G. Safonov



### IMA Working Group on Organic Minerals (WGOM) Annual Report for the year 2006

### **General Remarks:**

Within our WG only a rather small number of members is really 'active': between them exists a good cooperation indeed. Financial problems make it increasingly difficult to participate in international meetings. **Chairman:** Ao.Prof. Dr. Norbert Vávra, Vienna.

Secretary: Dr. Waltraud Winkler, Salzburg.

**Total number of members:** 16

(1) Scientific publications (some examples only – WG members highlighted)

KOSMOWSKA-CERANOWICZ,B. & GIERLOWSKI,W. (2006): Amber. Views, opinions. – 243 p., The Internat. Amber Assoc., Museum of the Earth – Polish Acad. Sci., Gdansk Internat. Fair Co., Gdansk – Warsaw. VÁVRA, N. (2005): Bernstein und verwandte Organische Minerale aus Österreich. – Beitr. Paläont., 29: 255 – 280. YAMAMOTO, S., OTTO, A., KRUMBIEGEL, G. & SIMONEIT, B. R. T. (2006): The natural product biomarkers in succinite, glessite and stantienite ambers from Bitterfeld, Germany. – Rev. Palaeobot. Palynology, 140 (2006): 27 – 49.

### (2) International Scientific Meetings

According to my informations: Prof. Tazaki has been the only one member of our WG participating in the IMA Conference at Kobe.

### (3) Circulars

The next Newsletter of WGOM (2006) is prepared right now and will be mailed towards the end of this year.

### (4) Activities planned

- 4.1.: Bibliography on chemistry, mineralogy and occurrence of amber
- 4.2.: Cooperation to restudy various important fossil resins (e.g. burmite, rumaenite, glessite)
- 4.3.: "List of valid and rejected names" a preliminary list summarizing data on 'ambers' will be the first step in this direction.

### (5) Scientific aims

- (a) Revisions of organic minerals, esp. for 'ambers'
- **(b)** Rules for the nomenclature of ambers

(c)

Vienna, November 15th, 2006.

Dr. Norbert Vávra



### IMA Committee for Internet and Computer Applications (CICA) 2006 annual report to IUGS

The creation of a Committee for Internet and Computer Applications (CICA) within the IMA was accepted by the IMA Council at the 18th IMA General Meeting in Edingurgh, 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 WG/commissions by providing advice and expertise on issues related to databases and the IMA website.

### The IMA website

Since the new version of the IMA website was transferred to Nancy in 2003, the CICA is not directly involved in the maintenance and developpement of the IMA website anymore. It is suggested that the IMA website should evolve towards a dynamical form, in order to facilitate the routine maintenance (posting new documents, changing addresses, adding links...) without having to modify html code. It is also suggested that the possibility of hosting by a of third party commercial provider should be investigated.

### An interchange format for mineralogical databases

A long-term goal of the IMA-CICA committee is to start developing an interchange file format for the various mineralogical databases. Such an ambitious project of attempting to develop a worldwide standard could only be conducted within the scope of the IMA. A communication entitled "A universal interchange file format for mineralogical data: What could be in there?" (available on the IMA website) was presented at the MM5 meeting in Paris in 2004. The urgent need for such mineralogical databases standards was pointed out by Mauthner et al. (2006) in a communication at the IMA meeting in Kobe, Japan.

The CICA failed to animate the "mineralogical databases" project in 2006, and it should renew its members in 2007 in order to build an more active team. The participants will be in charge of (i) defining subsets of the format (e.g., interchange format for spectroscopic data, chemical data...) and (ii) insuring the compatibility with other existing database formats.

B. Devouard (coordinator)



### IMA The final report on the activities of WGIM for 4-years

(2002 - 2006)

The Working Group on Inclusions in Minerals (WGIM) is a sub organization of the International Mineral Association (IMA). Through convening international conferences, organizing training short courses and other activities, the WGIM carries its missions to bring mineral inclusion researchers together for academic exchange, promoting technological awareness and technology development in mineral inclusion researches and therefore to support researches in related fields including but not limited to mineralogy, petrology, mineral deposit study, geochemistry, astrochemistry, tectonic geology, and petroleum geology, etc.

The WGIM was instituted in July 1986 during the 14th General Meeting of the IMA at Stanford, California, USA. Since then, the WGIM has been dedicating in organizing scientific conferences, training programs and other activities in promoting researches on inclusion in minerals around the world. The current term of WGIM began in 2002 during the 18th IMA in Edinburgh, UK. Zhaolin Li (China) was elected for the Chairman, Sergey Smirnov (Russia) the Secretary, and M. Enjoji (Japan) the Vice Chairman in 2003.

Summary of the current term's activities:

### I. WGIM Business Meetings

- 1. In Sep. 2002, the first business meeting was held in Novosibirsk, Russia. Li and Smirnov discussed work plan for 2002 to 2006, which included convening sessions on inclusions in minerals for the 32nd IGC in 2004 and the 19th IMA in 2006, and preparing to establish the Asian Current Research on Fluid Inclusions (ACROFI).
- **2.** In Aug. 2004, the second business meeting was held by Li, Smirnov and Enjoji in Florence during the 32nd IGC. The first meeting for ACROFI was confirmed to be held in China. Li was assigned to work with various parties in China for the meeting. It was also decided to convene an inclusion session and organize a short course for the 19th IMA. Enjoji and Smirnov were assigned to it. Smirnov contacted various inclusion specialists for the short course and text publication as well. Due to the lack of contact with Enjoji, the short course was not scheduled by the 19th IMA.
- **3.** In May 2006 during the ACROFI 1, Li and Smirnov had the third business meeting. Experience of organizing the ACROFI 1 was summed up. ACROFI will become a major part of the WGIM work plan. WGIM officer candidates for the next term were also discussed and Dr. S. Smirnov is proposed for Chairman, Prof. Pei Ni, Secretary. Zhaolin Li reported to IMA Secretary after the meeting. Issues of the current four-year activities, the 19th IMA Session 17 and WGIM display for the 19th IMA were covered as well.
- II. Scientific Conferences organized by WGIM in the last four years
- 1. The WG co-sponsored the Chinese National Symposium on Mineral Inclusions and Geofluid with the Committee on Inclusion in Minerals

of The Chinese Society of Mineralogy Petrology and Geochemistry and Department of Earth Sciences of Nanjing University in October 2002 in Nanjing, China. Over 100 attendees including 3 from the US and Canada submitted 71 abstracts covering researches on mineralization fluid, magma and metamorphic fluid, oil and gas formation fluid, and state of arts techniques and approaches of inclusion studies. Many new findings were reported on organic inclusion, inclusion in metal ore deposits, and new tech application of laser-Raman, ICP-MS and HDAC.



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- **2. Li, Smirnov and Enjoji convened the Session G15.11** for the 32nd IGC in Aug. 2004 in Florence, Italy. 27 abstracts were submitted from 10 countries (Australia, Brazil, Canada, China, France, Japan, Nepal, Portugal, Russia and United States). Topics covered mantel fluid, magma fluid, metamorphic fluid and synthetic fluid inclusions. There were 11 oral presentations and the reset were posters. New findings were presented on melt and fluid inclusions from porphyry copper deposit, shear zone gold deposit, carbonatite complex, and metamorphic rocks.
- **3.In September, 2004 WGIM organized sub-session** on ore-forming fluids in inclusions in minerals at Interim IAGOD Conference on Metallogeny of the Pacific Northwest: Tectonics, Magmatism and Metallogeny of Active Continental Margins.

# 4.In October 2004, the WGIM along with the Committee on Inclusion in Minerals of the Chinese Society of Mineralogy Petrology and Geochemistry co-sponsored the Chinese National Symposium on Mineral

Inclusions and Geofluid and short course on international organic inclusion researches in Langfang, China. 160 attendees brought over abstracts on mineralization fluid, magma melt inclusions, and oil-gas inclusion and analytical techniques. Three colleagues from France and Australia gave special presentations on fluid inclusion geochemical analysis and applications. There were extensive discussions on applications of oil-gas inclusion studies.

- 5.In 2005, Sergey Smirnov represented WGIM at ECROFI XVIII in Siena, Italy.
- 6. In May 2006, WGIM co-organized and co-sponsored the First Conference for Asian Current Research of Fluid Inclusions (ACROFI I) in Nanjing, China, along with Nanjing University, the CSMPG, the Geochemistry institutions in Guangzhou and Guiyang of the Chinese Academy of Science and Exploration and Production Research Institute, SINOPEC, Beijing, 182 attendees from 14 countries of Asia, Europe, North America, and Australia presented their current achievements in fluid, melt and mineral inclusion studies of different magmatic, hydrothermal, sedimentary systems. Significant part of presentations showed the progress of inclusion study in ore, oil and gas exploration. Oral and poster presentations displayed the new trends in application of thermodynamic modeling and experiment for the study of fluid inclusions in minerals and the trend of applying inclusion researches in petrogenetic and mineralization modeling experiments. Field excursion was conducted for Huangshan granite.

The ACROFI I was successful in establishing connections among inclusionists in Asia and other regions in the world, providing a forum for inclusion researchers and promoting inclusion studies in Asia and the rest of the world. The First Conference was impressive and played an important role. The next ACROFI II is planned to be held in 2008 in Kharagpur, India.

The WGIM would like to thank IMA Chairman Prof. Ian Parson and Secretary Dr. Maryse Ohnenstetter for their support to the ACOFI and the funding provided by the IMA.

**7. WGIM** is sponsoring and convening the Session 17 (Fluid and melt inclusions) for the 19th IMA in Kobe, Japan in July 2006. 14 abstracts were submitted from 4 countries (China, Germany, Japan and Poland). There will be 6 oral presentations and 8 posters. Zhaolin Li and Kenichi Hoshino (Hiroshima University, Japan) are the chairpersons of the Session 17.

This term's WGIM administration is coming to the end. I would like to thank everyone for your support during all these years. After the discussion with Dr. Smirnov, our secretary, on behalf of the WGIM, I am presenting the following nominees for the next WGMI administration. Dr. Sergey Smirnov (Russia) for the Chairman, Dr. Pei Ni (China) for the Secretary. The above are a summary of the last four years' activities. During all these four years, the IMA Secretary Dr. Maryse Ohnenstetter had provided continuing assistance and support to the WGIM. The WGIM officers are thankful for her help.

#### Li Zhaolin

Chairman of working group on inclusion in minerals of the IMA.



#### Society News



www.ima-mineralogy.org

# International Mineralogical Association

#### FROM THE PRESIDENT

MONEY MATTERS

First of all, some important news about a change in the executive committee of IMA. Cornelis Klein, of the University of New Mexico, who has worked exeremely hard as treasurer of IMA since 1995, has decided that the time has come to pass this task to someone else. As well as dispensing the sums of money needed to keep IMA running, for items such as maintenance of the website (www.ima-mineralogy.org), the operating costs of groups such as the Commission on New Minerals and Mineral Names, and support for meetings, Kase has worked tirelessly to collect the annual dues of member societies. What should be a routine activity is frustrating and time consuming because many supporting organizations seem to be unable or unwilling to transfer the relatively small sums involved. Based on Kase's experience I put forward below some ideas on how the situation might be improved by changes in the laws of IMA. We all have to be extremely grassful for the amount of work that he has put into this task over the last decade.



Robert T. Downs, incoming tressurer

We welcome as our new treasurer Robert T. Downs of the University of Arizona in Tucson, where he is associate professor of mineralogy and crystallography. Bob is Canadian and obtained his first degree (in mathematics) at the University of British Columbia before undertaining postgraduate work in mineralogy at Virginia Tech and completing a post-doc at the Geophysical Laboratory in Washington. IMA has tax-exampt status in the United States, so it is logical to pass the position of treasurer to someone based there.



Comells Klein, outgoing tressurer

For a person with Bob's background, balancing the boots should be a piece of cake, but only if we can overcome the problem of non-payment of dues. Should you be the responsible person in one of the several countries that has still not paid its dues for 2005, please send your money now to: Dr. Robert T. Downs

Dr. Robert I. Downs
1040 E 4<sup>th</sup> St., Dept of Geosciences, University of Arizona, Tucson Arizona 85721-0077, USA E-mail: downs@geo. arizona.edu

#### Modernizing IMA

IMA is living in a new world. It is no longer largely invisible between its four-yearly General Meetings, Now, through Elements, every ewo months, it can reach every mineralogist on Earth who has access to the Internet. If your country's mineralogical organization is not one of those supporting Elements directly, you (or your institutional library) may well receive a hard copy because you subscribe to one of the journals of the supporting societies. Even if you have no such access. anybody, two months after publication, can download a pdf from www.elementsmagazine.org. I think that this is cemarkable, and it is an opportunity the whole international mineralogical community must embrace. In the next paragraphs, I am going to review some of IMA's financial difficulties and make some personal suggestions (the bullet points) for their solution.

Our difficulty with getting some national groups to pay their annual duss is, I think, a symptom of a number of seructural problems within IMA. You might imagine, since IMA exists to promote the interests of its supporting organizations, that collecting dues would be a comparatively cousine activity. But in 2005 about a quarter of the 37 affiliated organizations had not paid by early December, making them at least one year late. These organizations were more than two years behind in payment, and one was six years behind. Some of the defaulters are small communicies in the lessdeveloped world, and we should be symposhesic with their problems. But two defaulting organizations are located in countries that are among those with the biggest per capita

- At present IMA makes contact with societies through their National Representatives.
   Although many do an excellentjob, some do not, and in future we shall also deal directly with society presidents and executive secretaries.
- At Kobe the Expiness Meeting should follow the rules of the IMA Constitution firmly.
   Countries in default for two

years or more will not be allowed to stone. Council will then consider whether any defaulting country should be deleted from the list of IMA members. This would, of course, be a matter of last essert, and we will always welcome letters of explanation from organizations who have genuine difficulties in paying.

A related problem concerns the formula used to calculate the subscription of each country. The amount (in US dollars) is calculated as 60 × D, where D is a number between 10 and 1 that depends upon the membership numbers of the supporting society. Thus the big societies of Germany, Russia and the USA, each with over 1000 members and D = 10, all pay \$600. At the other extreme, 16 societies have 25 members or less, D = 1, and they pay \$60. It isn't rocket science to figure out that an individual MSA member, for example, contributes a meximum of \$0.60, and a member of one of the little societies pays a minimum of \$2.40. This seems to me to be completely opposite to what is desarable.

- Societies should pay a per capita sum based on their exact paid-up membership. It would be up to each national society to decide how the money is collected, but it could form pare of their own annual subscription and be identified as the IMA contribution. Of course, some individuals are members of more than one national society, but they have anyway been paying twice (sometimes more) under the present system.
- The exact sum will need careful consideration, but it will be not more than \$2 per member.
   Members of big societies will pay a little more than they do now, those in small organizations less.

This brings me to a final financial problem. Even if we do not change our funding formula, so that our 16 small societies continue to pay \$60, such is the avarice (defined, in my Oxford dictionary, as 'extreme greed') of the world's banks that the costs of international money transfer are almost as great as the amounts being

ELEMENTS



FERRUARY 2006



International Mineralogical Association - 2006 IMA annual report to IUGS : Appendix [Tables - Annual reports of IMA Commissions and Working Groups- Elements- Minutes of the Kobe meeting]

#### cont'd from p. 60

collected, particularly if electronic transfer is used, thus the originating society might pay \$45 and IMA a further \$10-\$15 on receipt. Banker's drafts sent by post are somewhat cheaper, but most of our members prefer not to use them. I can see two postable solutions:

- Recognize that the dues paid by societies with less than 25 members are almost crivial and allow them free membership.
   This does rely on high standards of honesty, but then, we are all scientists.
- Agree that payments by smaller societies can be made in cash at IMA business meetings, which now take place every two years.

One thing that the president of IMA rapidly learns is that the societies that support IMA vary enormously in their size and strength. On the one hand are large organizations like the Mineralogical Society of America, which have permanent staff and offices and are subseautial publishing businesses. On the other hand there are small groups, sometimes within a national geological society, full of enthusiasm but lacking any formal seructure. To members from richer countries \$2 may seem timal (a litre of gasoline costs \$1.60 in the UK), but to less-well-off countries is may be subsantial. Council appreciates all these issues. But making IMA work well is in

everyone's interest. International scientific collaboration should be a major force in the world, and we can all play our part in this.

Wherever you work I welcome your views and fresh ideas as to how we can achieve our aims. Please e-mail: ian.parsons@ed.ac.uk, Bob Downs, or any member of the IMA Council (addresses at www.ima-mineralogy.org). Any changes will be decussed fully by Council and by delegates at our business meetings in Kobe in July 2006 (www.congre.co.jp/ima2006).

Ian Parsons President

ELEMENTS



FERRUARY 2006

#### Society News



### International Mineralogical Association

#### COMMISSION ON PHYSICS OF MINERALS



Georg Amthauer

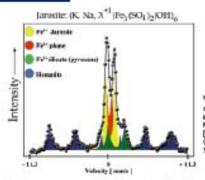
The Commission on Physics of Minerals (CPM) was established by IMA to promote the application of modern solid state physics to minerals and their physical properties as a function of temperature and pressure, even those occurring under the extreme conditions of the deep Earth. Many Earth processes can be understood only on the basis of a profound knowledge of the physical properties of the minerals involved, so research in mineral physics is fundamental in Earth sciences. One recent example is the discovery of the relation between deep earthquakes and the phase transition of cliving minerals under very high pressures.

in the upper mantle. In addition, many mineral groups, for example garness, percentiles, spinels and zeolies, have physical properties that are very important for various technological applications. The development of innovative photovoltaic devices based on natural sulfosales exemplifies the close relationship between mineral physics and materials science.

In both types of applications of mineral physics, the connection between crystal structure or phase transformations and the related physical properties plays a decisive role in the understanding of phenomena. For the determination of crystal structure (on the submanometer scale) and its dependence on temperature and pressure, several diffraction methods using X-rays, neutrons, electrons, and synchrotron radiation are available. With these methods, not only the positions of ions on lattice sites, but also electronic distributions around the nuclei may be derived. Transformations of seructure (phase transitions) can be desected with high accuracy using special calorimeeric methods. The physical properties measured comprise scalar quantities, such as density and specific heat, and tensor quantities, like elasticity/compressibility, thermal and electrical conductivity, refraction coefficient, magnetic susceptibility, and electric field gradient. Here, classical methods, such as calorimetry, magnetometry and

refractometry can be used, but spectroscopic tools, like infrared, Raman, Mössbauer spectroscopy, ESR and NMR are preferable. The latter have the great advantage of providing direct information at an atomic or even nuclear scale.

To develop a sophisticated interpretation and deep understanding of the physics of minerals, however, we need not only experimental data from surricture solution and solid state physics, but also the important contribution of quantitative methods, such as density functional theory based on quantum mechanics. This relatively recent mighty tool connects structural parameters, like ionic distances and symm tries in the crystal structure, with physical properties, such as specific heat, magnetic moment structures, and electric field gradient. Thus, it is possible to crease or control physical models for the intrinsic mechanism of the orientation of magnetic moments or electronic conduction in specific minerals. New or revised mineral-like materials with predicted properties can be



<sup>37</sup>Fe Mössbauer spectrum takan in aku from the Mara surface [Mingelhöfer et al. (2004) Science 306: 1740-1745].

Mossbauer spectrum of El Capitan: Mendiani Planum

"designed," of eminent importance for materials science.

Recent developments in mineral physics show that the most significant advances are obtained at the "boundary regions" between mineralogy and other disciplines:

- In the field of planeary mineralogy, specialist identifications and analyses of minerals on the surface of Mars were obtained by the NASA rover using a miniaturized Müssbauer specificmeter (MIMOS II) in combination with in situ X-ray fluorescence analysis (see diagram).
- Innovative photovoltaic devices have been synthesized and produced, based on naturally occurring sulfosalis.
- The use of ferrofkids (mostly a suspension of magneties nanoparticles) in cancer therapy represents a recent application in medicine.
- The development of the famous perovskite hightemperature superconductors resulted from a close interaction between mineralogy and physics. One of the inventors was Nobel Prize winner in physics J. Georg Bednort, who has a diploma in mineralogy and crystallography.
- New findings in the field of nanotubes as a tool for ultrahigh-density data storage in computer technology are based on exact knowledge of crystal-growth conditions, obtained from study involving a close collaboration between mineralogy, chemitery, and obtained.
- Ourseanding progress has been made in the field of ultrahighpressure and ultrahightemperature mineral physics,

by in shu measurements and experiments, and by computer simulations and calculations of the electronic and magnetic structure of minerals based on quantum mechanical coinciples.

The next few years may well bring similar progress in mineral physics through development of new analysical and experimental methods, by the improvement of old ones, by making databases more complete and accessible, and through computational mineral physics. However, who can predict where really important progress in science will come? My personal opinion is that, despite all the progress in computer science, it is still very important to perform reliable experiments and make exact measurements, and I want to encourage younger scientists to work in this field.

The main task of CPM is to promote all the different branches of mineral physics. However, there is no sharp boundary between mineral physics on the one hand and crystal chemistry and mineral thermodynamics on the other. CPM will keep promoting better communication between the different groups working in the field. During the last few years, the CPM has organized workshops and symposia during the IMA meeting in Edinburgh, UK (2002) and during the International Geological Congress in Florence, Italy (2004). The IMA meeting in Kobe, Japan, in July 2006 will feature exciting symposia on mineral physics. I hope to meet many mineral physicises there.

> Georg Amthauer University of Salzburg Chairman, Commission on Physics of Minerals

ELEMENTS



April 2006



#### Society News



www.ima-mineralogy.org

### International Mineralogical Association



#### FROM THE PRESIDENT

NEXT STOP KOBE

This issue of Elements will be the last before our 19th General Meeting in Kobe. It is a matter of great stadness that one of our longest-serving and most distinguished Councillors, Wenner Schrewer, has recently died. A fitting efforce to Wenner by Walter Maresch is published on this page.

The Kobe programme will, as usual, include two meetings of the council and two business meetings at which national representatives will be able to make their views known on the performance and fature of IMA. Even in the four years since the last general meeting in Edinburgh, enormous changes have occurred in the way communication occurs between the members of scientific organizations. Scientific publishing is in a state of considerable turmoil. For IMA, Elements presents an unprecedented opportunity. Council has had preliminary discussions, by e-mail, on a number of initiatives to strengthen IMA in this fast-changing world. Some of these ideas are listed below, and we would welcome the input of IMA members in general.

A new position of Communications Officer should be creased in Council, responsible for providing copy to Elements and for obtaining news material from member societies, commissions and working groups.

An IMA medal recognizing distinction in mineralogy should be institused, with the aim of becoming the most prestigious international mineralogical award.

Commissions and working groups have contributed to the mineralogical community mainty by sponsoring sessions at meetings. Currently they are composed solely of individuals nominated by the national societies. We should consider opening membership to all members of IMA and making them in pan international, electronically active newsgroups.

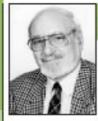
We need to consider co-organization of meetings with other mineralogical and geochemical organizations and to have a long-range meetings plan.

We must solve our problems with setting and collecting membership dues, a topic I discussed at length in Elements in February 2006.

In the long term, after our 2010 meeting in Budapese, we need to break the tradition that the chairman of the organizing committee of the general meeting automatically becomes president. The four-year period of presidency is too long. Before the meeting the president-elect is very busy and has little time to learn the verys of BMA. Afterwards, the new president relaxes, exhausted, I speak with personal experience here. The president of BMA should be a distinguished mineralogist, elected by the international community, and the position should not simply be an outcome of the success of a national bid to out a general meeting.

Please let me have your views on any of these topics. If IMA is supported by your national mineralogical organization, *IMA is your society.* I look forward to meeting some familiar faces in Kobe, and I wish the organizers the best of success in what promises to be an outstanding meeting.

Ian Parsons President



#### IN MEMORIAM

Werner Schreyer (1930-2006)

IMA councilor Werner Scheyer passed away on February 12, 2006, after baskling a particularly virulent type of cancer for a number of months. Werner calmly accepted the reality and the consequences of his illness. He drew solace from the fact that his life had been filled to the brim with the exchement of science, the pleasures of classical music and the company of his family, his

friends and his colleagues he enjoyed so much. Werner is survived by his wife. Marianne, and their two socs. Andreas and Christoph.

From the very beginning of his professional career, Weener Schreyer viewed mineralogy from an international perspective. He was the first German fellow to join the Carnegie Institution in Washington after the war. His key role some 20 years later in the establishment of the Bayerisches Geoinstitut in Germany can be viewed as his tribute to this institution and its importance in the geosciences. Weener was a member of the IUGS Commission on Experimental Petrology at High Pressures from 1971 to 1992 and its chairman from 1971 to 1984. He was a member (1972–1984) and chairman (1976–1984) of the German National Commisse for IUGS and IMA national representative for Germany (1990–1994). Werner took on the role of IMA councilor in 1994.

Werner Schreyer was an oueseanding sciencise of international seature. The presentation of the Roetling Medal by Peter J. Wyllie and the acceptance by Werner Schreyer (American Mineralogist 88: 936-939, 2003) provide wonderful and eloquent testimony to this. Originally trained in Munich as a hard-tock petrographer in the classical German tradition, Werner became one of the pioneers of experimental petrology in Germany after his fellowship at the Carnegie Institution. Big hammers, big samples and astuse observation were his trademarks in the field. He combined his uncarnty powers of perception and inhimate knowledge of field relationships with precisely planned laboratory experiments to open new avenues of research. His approach must be considered the optimum marriage of field and laboratory work. Werner's impressive list of more than 250 publications spans a wide spectrum, including classical field work in structural geology and petrography, theoretical and experimental appears of metamorphic petrology, and detailed crystal chemisery and mineral physics of a wide range of minerals and their experimental analogs. Marry of these articles are seminal introductions to new directions in these fields. Those who read "Mr. Cordieries's" early papers on this mineral will note concepts of geospeechometry far ahead of their time. He early work in the MASH system later evolved into the foundations of ultrahigh-pressure metamorphism.

Werner Schreyer was a respected, effective and exciting teacher. With determination and energy, he and his team made the Institute of Mineralogy in the newly created Ruhr-University of Bochum one of the world's most distinguished departments. Werner expected hard work from those around him but led the way himself. More than ten of his graduates and co-workers have gone on to professorships elsewhere. Above all, Werner Schreyer was not only an exceptional scientist and teacher, but also a friend and a stimulating colleague.

Over the years, Werner's outstanding work has been recognized by many. He was particularly proud of the Roebling Medal awarded to him in 2002 by the Mineralogical Society of America, and considered this award to be a crowning tribute to his career. Prior to this, the German, Austrian and Belgian mineralogical societies had bestowed their corresponding highest honour on him as well. Honorary doctorates were awarded by the Universities of Hanover and Liège. Werner Schreyer was a member of six scientific, learned academies and Honorary Fellow of five international proscience societies.

Werner was in the midse of a prolific and successful second career as emericus professor. We will miss his youthful enthusiasm and his eagerness to learn. Mineralogy has lose one of its most prestigious post-war scientises.

> Walter Maresch IMA National Representative for Germany

ELEMENTS



Just 2006



# International Mineralogical Association

#### FROM THE PAST PRESIDENT

The excellent 19th general meeting of IMA in Kobe is described by the organizers observer in this issue of Elewents. Everyone I spoke to agreed it was a thoroughly enjoyable event. The actentific standard of the talks was particularly high, reflecting the emphasis placed by universities and government on mineralogy and materials science in Japan. Heartfelt thanks are due to Takamitsu Yamanaka and his tours for an extremely smoothly run meeting and some memorable (sometimes deafening) social events.

Slightly smaller and more mineralogical than competing conferences, it is the emphasis on 'international' that gives IMA meetings their distinctive flavour. DAA has an important role in fostering international collaboration, particularly for the smaller mineralogical societies, and it is always a pleasure to nenew old acquaintances. It is, hoverver, disappointing that many members of the larger mineralogical societies do not automatically make IMA meetings their first choice of 'big' meeting. They should. I contend that the international character of science - the set of common rules and practices that all scientists share is of enomous potential benefit to mankind, well worth the effort of some extra travel or the need to concentrate a little harder of slightly less-than-perfect English.

IMA meetings are complex for the officials of IMA. As president, I had to chair two meetings of the IMA Council and two husiness meetings (at whach supporting organizations are represented, in proportion to their size, by between one and five national representatives), before handing the reins over in Takamitsu Vartanaka, my successor as president, for a final council meeting. All this activity has to be orchestrated, and papers provided, by our very baselworking Secretary, Maryse Ohnenstetter. Thanks from all of in, Maryse. In addition, the various commissions and working groups of 1864 each hold at least one meeting – thanks too to their chairs and secretaries.

#### Practical Matters

From this behind the scenes activity emerged both formal changes and exciting initiatives for IMA. The Council for 2006-2010, was approved, with some new members (see photo) page 318). Missing from the picture is a new communications officer, yet to be appointed, who, ingether with the pseudent, secretary and treasurer, will be a member of the Executive Committee, New officials were appointed to commissions and working groups, Dogan Paktune; Katsuo Tsukamoto and Sergey Smirnov become chairmen of the Commission on Applied Mineralogy, the Commission on Mineral Growth and Interface Process and the Working Group on Inchesions in Minerals, periectivoly. A full list of officials can be found at www.ima-mineral ogy.org



IMA president welcoming delegates at the opening commons, Protto Tachwell

The Commission on New Minerals and Mineral Names (CNMMN) has been merged with the Commission on the Classification of Minerals (CCM) to form the new Commission on Ne Minerals, Nomenclature and Classification (CNMNC). These commissions represent the most widely known activities of IMA The merger will solve problems encountered in the past at the boundaries of the fields of activity of the former commissions. The CNMNC will operate under the leadership of the hardworking Ernst Burke, who described the activities of CNMMN in Elements 1 (3).

Although far in the better, IMA needs to find a venue for the 2014 general meeting. In view of the locations of recent meetings and the 2010 meeting in Budapest, it would be appropriate to meet in North America, and we hope that proposals will come forward. Business meetings take place every two years, and it was decided to hold business and council meetings at the time of the 2008 Goldschmidt Confei ence in Vancouver, Canada. Council will meet during the combined societies 'Frontiers in Mineralogy' meeting in Cambridge, England, in 2007.

We hope that the problems of collecting membership dues [flowents 2 (1)] have been solved. The formula for calculating subscriptions leads to per capita payments that are smallest for the largest societies. Rather than increasing contributions paid by the larger societies, the subscriptions of our fifteen smallest societies, each with less than 25 members, will be reduced from 60 to 30 USS. The decrease in income will be compensated by an improvement in our annual investment income. The problem of the costs of international bank transfers has been solved by Bob Downs' discovery of a bank that will not charge for accepting cheques in foreign cumerate We can further help societies by

accepting payment up to four years in advance at business meetings.

#### Strategic Initiatives

Several initiatives will be developed in the months to come:

- An annual IMA Medal for Excellence has been founded.
   A Medals Committee will be formed, chained by Joel Grice.
   Candidates can be nominated by national societies and by individuals.
- . IMA will become the home of the comprehensive internet mineral database, being built by the KRUFF project, which is led by Bob Downs and George Rossman, with support from Michael Scott, the first president of Applie Computers, who himself is a keen mineral collector. The database will contain X-ray diffraction data, Raman and infrared spectra and microprobe data and analyses It has spectacular opportunities to be linked to new, miniaturized spectrometers for mineral Identification in the field.
- Many councillors feel that some of the commissions and seeking groups are not fulfilling their role adequately. Suggestions include forming a nucleus of experts in each field to lead developments, making more use of the Internet, and ensuring that chairmen serve no more than four years.
- The presidency of IMA will, in the future, be decoupled from chairmanship of the general meeting, a coensection that has developed through custom rather than statute. A democratic system and a shorter term of office for the president would ensure that an increasing number of leaders in the field of mineralogy would become aware of the workings of IMA and contribute fresh ideas.

I will end by wishing my success: Takamitsu Yamanaka, every success in the next four wars.

> Ian Parson President of IMA, 2002–2006

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OCHAIN 2006



#### Conference News

#### IMA 2006, KOBE, JAPAN

The 19th general meeting of the International Mineralogical Association took place on July 21-28, 2006. The National Committee for Miner alogy of the Science Council of Japan (SCJ) has supported IMA since it was established in 1958. At a business meeting during 8MA 2002 in Edin burgh, a proposal from the National Committe of SCI for a meeting in Kobe was accepted. The meeting was run jointly by the Science Council of Japan, the Mineralogical Society of Japan, the ociation of Mineralogists, Petrologists and Economic Geologists, and the Society of Resource Geology. The organizing committee would like to express hearty thanks to all participants for their cooperation and contribution to this conference. A total of 975 participants registered (including companying persons), from 50 countries. A total of 874 papers [488 oral presentations, 386 poster presentations) were contributed during the six slays. Six hundred delegates attended the receptions and hanquets, maintaining old friendships and making new ones, and discussing recent and future progress in science.

Mineral science has expanded widely, not only in geosciences but also in planetary scu bioscience, and materials sciences. Mineral scientists contribute strongly in interdisciplinary fields. Consequently we decided that the eatch phrase of the conference would be "Expansion to Nano, Bio and Planetary Worlds." After considering many significant suggestions and comments from our international program committee and from IMA commissions and working groups, the local program committee propared a timetable of 37 sessions. We express our gratitude to the Science Council of Japan for their cooperation and Jape financial contribution. We also extend our appreciation to Kobe City and to many companies for their financial donations or support. Many thanks are due to Dr. K. Kotokawa, president of SCJ, and to Mr. T. Yada, mayor of Kobe, for their welcoming speeches during the opening cere mony. We greatly appreciated the message from Mr. S. Kotzumi, prime minister of Japan.

Kobe City is one of the giost beautiful port cities in Japan. Unfortunately, eleven years ago, an enormous tragedy struck Robe, More than 9000 lives were lost during a big earthquake. But the city was completely rebuilt. I penumally believe many of the participants enjoyed the might view of Kobe, and I hope they took pleasure in the Japanese culture during the neeting. Finally, we hope the Kobe conference will be forelly remembered by all participants.

> Takamitsu Vamanaka President of DAA 2006-2010

#### Impressions from the out-going President

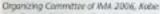
from the standpoint of a participant, without the considerable responsibilities of actually running the meeting, Kobe 2006 was thor oughly enjoyable. Takamitsu and his team did a magnificent job, and the organization was

refaxed and faultless. The scientific programme was Intense, based on 37 sessions with up to 7 oral sessions running simultaneously. The organizers had assentblod a galaxy of Interna-tional plenary lectures (Catherine McCammon, Bayreuth; Christoph Heinnich, ETH Zurich; Eiji Ito, Okoyama; Jillian Banfield, Berkeley: Lindsay Keller, NASA Houston: Lukas Baumgartner, Lauxanne: Yoshiyuki

Tatsumi, JAMSTEC Yokosuka; Michael Carpenter, Cambridge; Sumio Iljima, Meijo) whose excellent early afternoon talks were very well attended. The overall scientific standard of the oral presentations was extremely high, reflecting. I think, the quality of the science done in Japan and the resources that its government puts into our field of science.

Session topics covered all of mineralogy, with experimental and theoretical work at the very high pressures of the deep Earth well repri sented, as one would expect in Japan. Crystal and glass structure and properties, of both natural and synthetic materials, and modern applications of spectroscopy, synchrotron radiation and neutron science figured strongly, together with crystal growth and texture formation; the big word 'nano-' appeared in two contexts. Petrological sessions had a distinctly active margin emphasis: sea-floor bydrothermal systems; metal deposits in magmatic area; extreme P-T metamorphism; subduction factory; ocean crust and mantle. Fluid- and bio-mineral interactions, environmental mineralogy, clays and prolities were all covered, as was the role of minerals in the emergence of life. Solar system evolution, lunar and martian rocks and several up-to-the minute accounts of interplanetary dust returned by the Stanhist mission from the comet Wild-2 contributed to strong sessions on matter extraterrestrial. The very distinctively mineralogical topics of new minerals and miseral classification, and of miseums, were well supported. IMA Kobe more than lived up to the reputation of these meetings as the flagship international conference of the mineralogical

Kobe is a dramatic place, and the one-hour drive through the extraordinary close-packed industrial landscape from Osaka airport, with steep, densely forested hills rising immediately



- Central Chairman T, Yamanaka
- Secretary E. Chizar
   Secretary E. Chizar
   Sciente Program K. Fujimi
   Scientific Ecuationi E. Mariuti
   Trigametr T. Maridami
   Disselora H. Koneda
   Fublicity Chair B. Mayandii
   Local Arrangemens M. Matual Maturback







behind the countal lowlands, leaves an indefible impression. As little driver-less trains shuttle faultlessly about, it is hard to believe that such a complex, high-tech urban area could have been devastated by a great earthquake so recently. Only a strangely deformed block pavement, preserved near the conference centue, provided a reminder of the displacements and mighty forces involved.

Japanese society is renowned not just for its nergy and efficiency but also for its calm and devotion to good manners. All these were very visible at the meeting. But when they let go, our Japanese friends clearly like brilliant colours, violent movement, and a great deal of noise. We were treated to dragon dancers, Bon dancers and ear-splitting drumming as well as more restrained, and very beautiful, Japanese traditional music. Kobe more than fulfilled the 'international' in IMA and it was good to see mineralogists from 50 countries so obviously enjoying themselves, I'm already looking forward to Budapost in 2010.

Ian Parsons

Dirinte 2006

ELEMENTS



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A paper from Ernst Burke to be published in Elements (December 2006-V2,N°6) relative to the merging of the CNMMN and CNMNC

The end of CNMMN and CCM, long live the CNMNC!

Two commissions of the International Mineralogical Association (IMA), the Commission on New Minerals and Mineral Names (CNMMN) and the Commission on Classification of Minerals (CCM) have jointly proposed to the IMA Council in 2005 to merge their activities into a single, new commission to be named Commission on New Minerals, Nomenclature and Classification (CNMNC). The main reason for this proposal was the conflicting control over certain tasks within mineralogical nomenclature.

In the early 1990s, the then chairman of the CCM embarked on a plan for the CCM to develop an overall classification system for minerals, probably the scheme currently in use by the International Cantre for Diffraction Data. This proposal sparked an immediate response from the then chairman of the CNMMN who forcefully expressed the view that the proposal was in conflict with the jurisdiction of the CNMMN over all matters affecting mineralogical nomenclature. Following some acrimonous debate, which culminated during the 1994 IMA General Meeting in Pisa (Italy), the issue was ultimately resolved by the IMA deposing the then chairman of the CCM.

In another area of possible conflict, the CCM has never played, surprisingly, an active part in developing or revising classification schemes for specific mineral groups. This role has, instead, been assumed from the start of the IMA by the CNMMN, which established special subcommittees to review the classification and nomenclature of large mineral groups, such as amphiboles, micas, pyroxenes and zeolites.

In the early 2000s, some officers and members of CCM and CNMMN renewed the efforts to arrive at a necessary standardisation of mineral groups and their nomenclature. A joint working paper was drafted for this purpose, and submitted to both commissions. During the 2004 Paris (France) meetings of the two commissions (on the occasion of the 5<sup>th</sup> Conference on Mineralogy and Museums), it again became clear that classification of minerals is inseparable from mineral nomenclature, and that CCM and CNMMN cannot function independently on this issue. Ernest H. Nickel, vice-chairman of the CCM and former vice-chairman of the CNMMN, came then up with the logical proposal to amalgamate the two commissions.

This proposal to merge the two commissions into a new commission was voted on in 2005, and approved with overwhelming majorities by the members of both commissions. There were many suggestions for the name of the new commission, the chosen one was proposed by Gheorghe Udubasa, representing Romania in both commissions, namely Commission on New Minerals, Nomenclature and Classification. This name encompasses all fields of interest and all activities of the new commission. And moreover, as pointed out by Gheorghe, the abbreviation CNMNC is symmetric, as befits a mineralogical name.



The IMA Council members agreed with the proposed merger in May 2006, and the final decision was taken during the Business Meeting of the IMA in Kobe (Japan) in July 2006. A play of words was necessary to obtain this result because the IMA Statutes and By-Laws do not consider the possibility of a merger of two commissions, only 'termination' and 'initiation'. Closing down both commissions has a serious drawback: a new commission must be initiated as a Working Group, which has not the same

status as a Commission. It was therefore decided to terminate one commission and to rename the other

commission into CNMNC.

In order to avoid a heavier workload for its officers in a commission with expanded duties, the CNMNC has decided to organise its activities with an additional officer, a second vice-chairman who will

Ernst A.J. Burke, chairman CNMNC.

specifically be responsible for classification matters.



## Minutes of the First Business Meeting 19th General Meeting of IMA

Kobe, Japan
Tuesday 25<sup>th</sup>, July
International Conference Center, Main Hall

Hour: 17H00-18H00

#### **IMA Council**

Present: Ian Parsons, President in the chair Takamitsu Yamanaka, First Vice-President Nicolai Yushkin, Second Vice-President Maryse Ohnenstetter, Secretary,

Robert Downs, Treasurer

Alain Baronnet, Kari Kojonen, Marcello Mellini, Walter Maresch, Councillors.

Excused: Tony Naldrett, Past-President, Ian Campbell, Councillor

#### **National Delegates**

	National Society	Balloting power	Delegates
1	Mineralogical Association of Argentina	1	
2	SGGMP: Specialist Group of Geochemistry, Mineralogy and Petrology (SGGMP) (Geological Society of Australia)	3	William BIRCH Dermot HENRY Stuart MILLS
3	Mineralogical Association of Austria	3	Ekkehart TILLMANNS Volker HOECK Herta EFFENBERGER
4	Mineralogical Union of Belgium	1	Frédéric HATERT
5	Mineralogical group (Brazilian Society of Geology)	1	
6	Bulgarian Mineralogical Society	1	Yvan BONEV
7	Mineralogical Association of Canada	4	Joel GRICE Robert MARTIN Jeanne PAQUETTE Elena SOKOLOVA
8	Chinese Society of Mineralogy, Petrology and Geochemistry	3	Anhuai Lu Rucheng WANG Zhuming Yang
9	Croatian Mineralogical Association (Geological Society of Croatia)	1	Vladimir BERMANEC
10	Mineralogical group (Czech Geological Society)	1	Milan NOVAK
11	Mineralogical Society of Denmark	1	
12	The Mineralogical Society of Egypt	1	
13	The Mineralogical Society of Finland	1	
14	French Society of Mineralogy & Crystallography	4	Georges CALAS Christian CHOPIN Patrick CORDIER Laurence GALOISY
15	German Mineralogical Association	5	Juergen KOEPKE Andrew PUTNIS Depmeir WULF
16	Committee of Economic Geology, Mineralogy and Geochemistry (Geological Society of Greece)	1	
17	Mineralogical and Geochemical Section of the Hungarian Geological Society	1	Tamas WEISZBURG
18	Mineralogical Society of India	2	
19	Mineralogical group (Israel Geological Society)	1	
20	Italian Mineralogical and Petrological Society	3	Giovanni FERRARIS Stefano MERLINO Simona QUARTIERI
21	Mineralogical Society of Japan	4	Kiyoshi FUJINO Yasuhiro KUDOH Miyata TAKESHI
22	Mineralogical Society of Korea	1	
23	Mineralogical Group (Royal Geological and Mining	1	Ernst BURKE



Society of the Netherlands) The Mineralogical Society of New Zealand 25 Mineralogical Group (Norway geological Society) 1 **Gunnar RAADE** Marek MICHALIK 26 The Mineralogical Society of Poland 2 Mineralogy Group (Geological Society of Portugal) 27 1 Corina IONESCU 28 Mineralogical Society of Romania Askhab M. ASKHABOV 29 Mineralogical Society of Russia 5 Nicholay BORTNIKOV Tatiana L. EVSTIGNEEVA Stanislav K FII ATOV Nicolay SOBOLEV Mineralogical Society of Slovakia 30 3& Mineralogical Association of South Africa 2 Sabine VFRRYN 32 Spanish Society of Mineralogy 2 33 The Swedish Mineralogical Society 1 34 Swiss Society of Mineralogy and Petrology 2 35 The Ukrainian Mineralogical Society 2 Mineralogical Society of Great Britain and Ireland Mark WELCH 36 Ben HARTE 37 Mineralogical Society of America 5 Barb DUTROW George HARLOW Charles PREWITT S REDFERN Joseph SMYTH 38 Mineralogical Society of Uzbekistan 1 Koneyev RUSTAM

#### 1. Welcome by President lan Parsons and Approval of the agenda

Delegates were welcomed by the President of IMA for their attendance at the first IMA Business Meeting. The different councillors presented themselves briefly.

The following final agenda was approved by the delegates :

- 1. Opening and Approval of the agenda
- 2. Obituary
- 3. Approval of the minutes of the Business Meeting in Florence, 2004
- 4. Plans for the Kobe official events and meetings
- 5. Progress reports for the 2004-2006 period
  - 5.1 President's report
  - 5.2 Treasurer's report
  - 5.3 Secretary's report
- 6. Changes in the Council
  - 6.1 Change in the constitution: Communications Officer position on Council
  - 6.2 Proposed list of IMA Councilors
- 7. Commissions and Working groups reports
  - 7.1 Merging of CNMMN and CCM
  - 7.2 List of Officers of IMA Com/WG
- 8. Meetings
  - 8.1 2008 33rd IGC in Oslo, Norway (5-14 August)
  - 8.2 2010 20th IMA General Meeting in Budapest (August)
  - 8.3 Other meetings
- 9. Strategic plan for the IMA
- 10. Funding formula of IMA and method of collecting dues

#### List of documents provided to National Representatives up to July 2006.

- President's 2006 report for Kobe
- 2. 2005 IUGS report
- 3. Publication in Elements
- 4. Minutes of the Florence first and second Business Meeting, August 2004
- 5. IMA Official events and Timetable in Kobe
- 6. Delegates and Alternates to the Business Meetings
- 7. List of IMA Officers up to July 2006
- 8. List of IMA Councillors to be elected in Kobe

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- 9. List of IMA National Representatives
- 10. IMA Commissions and Working Groups 2005 Reports
- 11. Proposals of merging CNMMN and CCM
- 12. Proposed list of Officers of Commissions and Working Groups
- 13. Information on the Budapest 20th General Meeting

Attached document: One Appendix relative to items 4, 5.1, 5.2, 6.1, 7.1, 7.2, 9.2, 10.

#### 2. Obituary

The President reported with sadness the death of Councillor Werner Schreyer, who had given wise advice to Council for many years.

#### 3. Approval of the minutes of the Business Meeting in Florence, 2004

The minutes of the First and Second Business Meetings were accepted.

#### 4. Plans for Kobe Official events and meetings

The beginning of the second Business Meeting on Thursday was moved to 18:00 to permit some people attending the Com/WG business meetings earlier in the afternoon to be present for the 2nd IMA Business Meeting. There was also an announcement on the venue of an informal meeting for the Councillors and chairs of IMA Com/WG, which is planned for the evening. Departure is fixed at 7:00 to-day (see appendix, p.1).

#### 5. Progress reports for the 2004-2006 period

- 5.1 President's report Most of the information was already given during the open ceremony (see appendix, p. 2 & 3).
- 5.2 Treasurer's report IMA currently has \$111,285.01 US in its bank account (Bank of America) stored in three different accounts.

Certificate of Deposit (CD): \$76407.33

Savings: \$20051.75 Checking: \$14825.93

The CD will bring in about \$3000 this year in interest.

IMA has received \$6030 in dues from various societies so far this year.

If all societies paid their dues, IMA would receive \$8400 from dues for a total income of about \$11,400 this year. This year IMA has spent \$1734 on wire transfers (\$100) and website development (\$1634). (see appendix, p.4)

- <u>5.3 Secretary's report</u> The secretary has worked on most of the items presented in the agenda and at developing communication. The IMA website " www.ima-mineralogy.org" has the following characteristics :
  - Size : 242 Mb
  - Total number of files and folders: 652
  - 179 files to download
  - Directory of more than 100 meetings, workshops and short courses dedicated to mineralogy.
  - More than 100 links to the websites of amateur and professional mineralogists

In addition, 1512 e-mails were received since 2005, and 769 were sent.

#### 6. Change in the council

**6.1. Change in the Constitution: Communications Officer position on Council.** - The proposed modification of the constitution was sent in due time to the National representatives (see appendix, p. 5 and 6). The full text proposed by the IMA President and approved by the Council is reported in the appendix.

The proposal consists of amendments to Article 4B (a) of the Constitution (new or changed words underlined):

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

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

<u>6.2. Proposed list of IMA Councillors</u> - R. Downs replaced C. Klein in November 2005. Following the death of W. Schreyer there was the designation of W. Maresch early in 2006. E. Tillmanns will organize the 20th General Meeting of IMA in Budapest and as a consequence he will get the position of First Vice-President. Two other councillors, Joel

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Grice and Anhuai Lu, were proposed by the Council prior to Kobe 2006 to replace A. Baronnet and Ian Campbell, respectively, who have resigned.

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	Councillor	Joel Grice
8	Councillor	Kari Kojonen
9	Councillor	Anhuai Lu
10	Councillor	Walter Maresch
11	Councillor	Marcello Mellini

#### 7. Commissions and Working Groups reports

<u>7.1. Merging of the CNMMN and CCM</u> - The major reason to merge CNMMN and CCM was to increase efficiency in the naming and classification of minerals. The way to proceed involved the dissolution of the CCM and the reorganization of the CNMMN, because no merging process exists in the constitution (see appendix, p.7). The merging was accepted by a high proportion of representatives from the two commissions, as well as by the Council.

<u>7.2. List of officers of IMA Com/WG</u> - The list of officers for the period 2006-2008 was shown (see appendix, p.8) with the names of new officers underlined.

If the merging process is accepted, two vice-chairmen will be elected in the reorganized commission having a new name: Commission on New Minerals, Nomenclature and Classification (CNMNC).

#### 8. Meetings

The agenda of the first Council Meeting had not been completed on Sunday, and there was no decision taken on the location of the next council and business meetings. There was a question from a delegate on the existence of other meetings organized in the frame of IMA. It was answered that not all the meetings to which IMA or its Com/WG had contributed were listed (M&M; ICAM; EGU).

#### 9. Strategic plans for the IMA

- <u>9.1. Medals</u> It was recalled that IMA has no medal, in contrast to most of the societies that are members of IMA, or to other international organizations. The principle of an IMA medal for Excellence has been proposed by the Councillors, to be awarded every year. There is an overall acceptance in the IMA Council that proposals could be made by individuals as well as by national societies.
- <u>9.2. Mineral databases</u> The Council had a long discussion on the creation of a database in the frame of IMA. This database should involve the CNMMN. The project was initiated by Bob Downs and would be funded by Mike Scott, founding president of Apple Computers. This project would involve the creation of a steering committee, which would look after the development of the project (see appendix, p.9).

#### 10. Funding formulae and method of collecting dues

There had been a discussion in the Council concerning the way IMA is funded (see appendix, p.10). This was the reason that exact membership numbers of societies/groups adhering to IMA had been requested earlier in order to consider adjusting the respective dues of societies, based on one or two dollars per capita.

#### 11. Closing by President Ian Parsons

The president thanked again the Delegates present at the meeting and closed the first business meeting of IMA.

End: 18H.



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#### Appendix of the minutes of the first Business Meeting of IMA, Tuesday, July 25th, Kobe, Japan International Conference Center, Main Hall

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#### ITEM 4 - IMA2006 - Kobe Timetable - Tuesday, July 25.

Time								_			_			
	8		9	10	11	12	13	14	15	16	17	18	19	20
July 23 Sunday					Registration COUNCIL MEETING (13- 17H) Room 303 CNMMN meeting (15H30) Room 406  Welcome Reception V and V, 26 <sup>th</sup> floor									
July 24 Monday			gis- ition	6 Par Oral sessi		Lunch	Opening 6 Parallel CNMMN meetir Cer- Oral sessions Room 406			ng (18H00)				
July 25 Tuesda y			_6 Pa Oral s	rallel essions	6	Lunch	PL	_6 Pa Oral session		Poster Session  IMA administrative affairs  IMA BM in Main Hall  16:45-18:45				
July 26 Wed.			_6 Pa Oral s	rallel essions	3	Lunch	PL	COUN	rallel Oral sessions NCIL MEETING BH) Room 303  B Banquet R			et		
July 27 Thursda y			_6 Pa Oral s	rallel essions	5	Lunch	PL	Oral Poster Session IMA administrative affairs IMA BM in Main Hall (18H) 16:45-18:45						
July 28 Friday			_6 Pa Oral se	rallel essions		Lun ch* CM 303	PL	_6 Pal Oral sessio		B C R · C	ere			

PL: Plenary Lecture; BR: Break

IMA administrative affairs:

Tuesday, 1st Commissions and Working Groups Meetings + 1st IMA Business Meeting Thursday, 2nd Commissions and Working Groups Meetings + 2nd IMA Business Meeting Friday, July 28th, Third Council Meeting, 12H

Rooms for BM of Com/WG: see the table on date of Business Meetings of the IMA Commissions and Working groups.

#### LAST NEWS: FRIDAY 30 JUNE 2006 from the IMA2006 Secretariat in Kobe.

Welcome Reception

Sunday, July 23, 2006 17:00-20:00

Banquet

Wednesday, July 26, 2006 19:00

**Opening Ceremony** 

Monday, July 24, 2006 13:15

Closing Ceremony

Friday, July 28, 2006 17:00

The venue of Welcome Reception has also changed from the International Conference Center Kobe (ICCK) to Kobe Chamber of Commerce and Industry.

INFORMAL MEETING for Councillors and Chairs of Com/WG: Tuesday 25th, 19H.

#### ITEM 5.1 - WELCOME FROM THE PRESIDENT OF IMA

Welcome to the 19th General Meeting of the International Mineralogical Association! IMA's four-yearly flagship meeting has moved from one island nation, at a passive margin on the western edge of Eurasia, to another at an active margin on its eastern rim. Running a meeting as large as this requires a big team effort and we must all be sincerely grateful for the very hard work of Takamitsu Yamanaka and his colleagues over a period that I know from personal experience stretches over several years. These IMA meetings are important events because they are the only international meetings devoted specifically to mineralogy. The programme the team has put together is extremely exciting and will provide a wonderful show-case for current mineralogical research. Thank you all very much.

There have been many important changes, both internal and external to IMA, since we last met in Edinburgh in 2002. Internally, I have, sadly, to remind delegates of the recent death of one of our most distinguished Council members, Werner Schreyer. His wise advice to Council will be greatly missed. His place on Council has been taken by Walter Maresch, also of Ruhr-University, Bochum. Cornelis 'Kase' Klein, of the University of New Mexico, Albuquerque, decided after many years of devoted service as treasurer of IMA that the time had come to stand down. His role has been taken over by Bob Downs, who is based one American state to the west, in Tucson, Arizona. We must all thank Kase for his work and patience over many years. The repeated difficulty he experienced in getting the national organizations of many countries to pay their annual dues to IMA remains a problem, and one that we shall, I hope, address in Kobe. We are delighted to welcome the mineralogical societies of Uzbekistan and of India to the membership of IMA, which now has 38 supporting organizations.

Following the Edinburgh meeting we began the practice of holding Business Meetings every two years rather than four, and two successful Business Meetings were held during the International Geological Congress in Firenze (Florence). It was particularly appropriate that our competition to choose a logo for IMA, which was carried out by Council without knowledge of the identity or nationality of the designers, was won by a young Italian scientist, Sabrina Nazzareni, of the University of Perugia. The 2nd Business Meeting voted to hold the 20th General Meeting of IMA, in 2010, in Budapest. It will be organized by mineralogists from Austria, Hungary, Romania and Slovakia, under the chairmanship of Ekkehart Tillmanns of the University of Vienna. A collaboration between Christine Lecluse and our Secretary, Maryse Ohnenstetter, in Nancy, France, led to the development of a modern and stylish IMA website (www.ima-mineralogy.org), with links not only to the websites of many of our supporting societies but also to those of many IMA Commissions and Working Groups.

An important external event occurred at the end of 2004, when the first issue of *Elements* magazine appeared. Rod Ewing, of the University of Michigan, introduced the concept of a semi-popular international magazine devoted to mineralogy, geochemistry and petrology, part thematic articles and part news-and-views, to the Mineralogical Society of America (MSA) at the end of 2000. The idea was developed with consulation outside the USA and early in 2003 an international steering committee was formed. At the end of 2003, MSA, the Mineralogical Association of Canada (MAC) and the Mineralogical Society of Great Britain and Ireland agreed to provide start-up funding. Mike Hochella and myself joined Rod as scientific editors and Pierrette Tremblay from MAC as managing editor. We all met for the first time in Michigan in April 2004 and, remarkably, in November the first issue (dated January 2005) appeared. By then the Geochemical Society, the Clay Minerals Society, the European Association for Geochemistry and the International Association of GeoChemistry had joined the consortium. By June 2006 there were eight contributing societies, including Société Française de Minéralogie et de Cristallographie, plus three 'affiliated' societies, IMA, the European Mineralogical Union and the AIPEA, who are provided with space when available but do not pay a subscription. Four other societies have applied to join the contributing consortium in 2007. The editors all hope that other major societies, especially Japan, will join very soon. The print-run is now about 10 000. *Anyone* may view *Elements* at www.elementsmagazine.org.

It is obvious that *Elements* has been a great success within the international mineralogical and geochemical community. We, as the International Mineralogical Association, have many people to thank for this, particularly Rod Ewing, for his vision and enthusiasm, and Pierrette Tremblay for her style and tireless efficiency. MSA, through its Executive Director, Alex Speer, provides guidance and infrastructure, including the subscription database that only a well-supported, professional scientific society could offer. IMA has capitalised on this unprecedented opportunity to reach its members with news and articles by the President and Secretary and by Chairmen of Commissions. At this meeting I am proposing that we appoint a 'communications officer' to Council to maintain a broader flow of news that might include articles describing the makeup and activities of the smaller Min Socs that make up an important part of IMA, or news and views from their members.

Just recently another very exciting proposal was presented to IMA. One of the most important roles played by IMA is the naming and classification of minerals. The dissemination of this information has been largely accomplished through journals. To provide a new means to present and interact with mineralogical data, Mike Scott, an avid gem



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collector and founding president of Apple Computer Corporation, is offering funding through the RRUFF project to build a web site and database that will be associated with IMA. The database will present the complete list of minerals, with experimental diffraction patterns, chemistry, spectroscopy, and means to search and identify minerals. The community will be encouraged to contribute and we can build a resource that will educate as well as provide research direction. Bob Downs, our new treasurer, will be talking about the project on Tuesday afternoon.

At our Council and Business meetings we shall be discussing further important initiatives that I outlined in the June issue of *Elements*. The foundation of an IMA medal recognizing international excellence should be a priority. We need to find ways of making the Commissions and Working Groups more pro-active in involving the whole community of mineralogists in their fields, perhaps through the medium of electronic newsgroups resembling MSA-talk. We need a long-term plan to co-organize meetings with other mineralogical and geochemical organizations between IMA General Meetings. We must solve our problems in collecting dues from member countries, perhaps by introducing a flat-rate system in place of the present banded system which makes membership much cheaper for members of the larger, often richer Min Socs than those of the smaller, less well-funded ones. In my view we need to consider shortening the term of office of the President and decoupling the presidency from organization of the General Meeting.

Before I end I must give sincere thanks to our Secretary, Maryse Ohnenstetter, for her tireless efforts over the last four years. Presidents make speeches but it is Secretaries that make organizations like IMA work. Maryse works extremely hard on many aspects of IMA, both on a day-to-day basis and on more time- consuming activities like preparing reports for IUGS (which you can see on the IMA website), providing agendas and supporting papers for meetings like this, and maintaining the website. I shall pass the Presidency to Takamitsu at this meeting confident in the knowledge that he will have unfailing support from Maryse. We all have a great deal to thank her for.

Ian Parsons, President of IMA

Welcome speech rev [1]



#### ITEM 5.2. - Members of mineralogical societies or groups, members of the IMA

	Society/Group	Country	Ba P	Memb	Instit	
1	Mineralogical Association of Argentina	Argentina	1			
2	SGGMP : Specialist Group of Geochemistry, Mineralogy and Petrology (SGGMP) (Geological Society of Australia)	Australia	3	254		
3		Austria	3	<300		
4		Belgium	1	25		
5		Brazil	1	20		
6		Bulgaria	1			
7	Mineralogical Association of Canada	Canada	4	621	381	
8	Chinese Society of Mineralogy, Petrology and	China	3	021	001	
	Geochemistry	Omna	ľ			
9	Croatian Mineralogical Association (Geological Society of Croatia)	Croatia	1			
10	Mineralogical group (Czech Geological Society)	Czech Rep.	1			
11		Denmark	1			
12	·	Egypt	1	90		up to 300
13	Ŭ ,	Finland	1			
14	, , , , , ,	France	4	246		
15	German Mineralogical Association	Germany	5	1347		
16	Committee of Economic Geology, Mineralogy and	Greece	1			
	Geochemistry (Geological Society of Greece)					
17	Geological Society	Hungary	1	45		
18	Mineralogical Society of India	India	2	144		
19		Italy	3	375		
20	Italian Mineralogical and Petrological Society	Israel	1			
21	Mineralogical Society of Japan	Japan	4			
22	Mineralogical Society of Korea	Korea (Sth)	1			
23	Mineralogical Group (Royal Geological and Mining Society of the Netherlands)	Netherlands	1	43		
24	The Mineralogical Society of New Zealand	New	1			
		Zealand				
25	Mineralogical Group (Norway geological Society)	Norway	1	3		
26		Poland	2	190		
27	Mineralogy Group (Geological Society of Portugal)	Portugal	1			
28	ŭ ,	Romania	1	45		
29	ŭ ,	Russia	5			
30	Ŭ ,	Slovakia	1	55		
31	<u> </u>	South Africa	2			
32	. , ,	Spain	2			
33	ů ,	Sweden	1	70		
34	, 0, 0,	Switzerland	2			
35	ů ,	Ukraine	2			
36	,	United Kingdom	4			
37	Mineralogical Society of America	USA	5	2225	671	
38		Uzbekistan	1			



#### ITEM 6 - Proposed change in the Constitution of IMA Appointment of a Communications Officer to the Council

#### **Background**

Council recognises that even in the four years since the last General Meeting of IMA great changes have occurred in the way IMA can communicate with its members all over the world. The stated objective of IMA is 'to further international cooperation in the mineralogical sciences'. It must, therefore, make the most of the new opportunities for free exchange of ideas and the distribution of news between member countries. These available opportunities include:

- Elements magazine will have a print-run of 11500 copies of each issue in 2007. For 2006 there are 8 supporting Mineralogical and Geochemical Societies, and 3 more have applied to join for 2007. IMA members who are not members of these societies will usually be able to see Elements in their institutional library, and two months after publication anyone can freely download a pdf file from www.elementsmagazine.org or via the ima website.
- IMA now has a stylish website at www.ima-mineralogy.org so that information on IMA activities, personnel and meetings is freely available. There are links to the websites of many of the 38 national societies. Many Commissions and Working Groups have links to their own websites.
- Commissions and Working Groups are made up of representatives of national societies, although on many of them not every country is represented. Council is considering the possibility of widening their membership so that they become more like e-mail newsgroups, while retaining a core of National Representatives

Elements is published every two months and it is important that a steady flow of articles and news is sustained by IMA. Up to now this flow has been maintained by the President, who happens also to be, until the end of 2007, one of the Principal Editors of Elements. During its start-up period articles have been written by the President, the Secretary, and the Chairmen of three Commissions, but there has not been time to collect news items about individuals, about individual societies who are not members of the consortium supporting *Elements* and about Commission and Working Group activities.

This is a considerable task, too large to be undertaken by the President and/or Secretary, and Council wishes to propose enlarging the Council to include the new position of Communications Officer. This person would be a member of the Executive Committee. He or she will work closely with the President and Secretary with the following main responsibilities:

- Write informal copy for *Elements* (with illustrations).
- Get in touch routinely with National Representatives and Secretaries of member societies who do not have 2. their own pages in *Elements* and collect news of individuals, activities, meetings, and publications. Illustrated accounts of the history and activities of such groups could be published as small articles.
- Obtain or write informal accounts of the activities of Commissions and Working Groups describing what they 3. do and what their objectives are (we have had three of these already).
- 4. Report Council initiatives and developments within IMA.
- Inform readers about IMA activity in forthcoming meetings. 5.
- Articles by the President and Secretary should feature regularly as they have done so far, but the communications officer would be responsible for producing final, possibly illustrated manuscripts, and for negotiating space and other details with the managing editor of *Elements*.
- Assist the Secretary to maintain the IMA website.

Encourage and assist Commissions and Working Groups to become interactive e-mail newsgroups.

Suggested amendment to ConstitutionCouncil recommends amending Article 4B (a) of the Constitution to read (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].

Please consider this amendment and be prepared to vote on it at the First Business meeting in Kobe. In line with Article 8 of the Constitution this document is being circulated more than 10 weeks before the meeting. We would be pleased to have your comments and ideas on this subject. Please send them to both myself (ian.parsons@ed.ac.uk) and Maryse Ohnenstetter (mohnen@crpg.cnrs-nancy.fr)

Ian Parsons

President of IMA

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# ITEM 7.1 - Proposal of merging the Commission on Classification of Minerals (CCM) and the Commission on New Minerals and Mineral Names (CNMMN)

The IMA has at present two commissions which in principle have jurisdiction on the nomenclature of minerals and mineral groups, the CCM and the CNMMN. Officially, the objectives of these commissions are as follows:

CCM: The aim of CCM is to collect, document and to help improve existing or proposed classifications of minerals.

CNMN: The CNMMN was established for the purpose of controlling the introduction of new minerals and mineral names, and of rationalising mineral nomenclature.

In practice, there has never been a clear separation of duties between these two commissions, and this omission has been the cause, in the past, of several disagreements.

On the other hand, it is clear that a number of nomenclature problems and decisions (namely those on mineral groups and on classification of minerals) are common to the two commissions, partly reflected in the fact that several persons are members in both commissions.

It became apparent that merging of the two commissions would simplify the work. It was proposed that the two commissions could be combined to give a commission called "The IMA Commission on New Minerals, Nomenclature and Classification. This name would be clear for everybody within and outside IMA. These ideas were discussed at a combined meeting of CCM and CNMMN in Paris in September 2004, and in 2005 were put to the vote of both commissions

The merger was approved as follows:

CCM: 15 votes (= 65% attendance); yes 14, no 1, abstain none (= 93% approval).

CNMMN: 24 votes (= 80% attendance); yes 19, no 5, abstain none (= 79% approval).

The merger proposal was approved by the Council in May 2006.

The IMA constitution says nothing on the merging of two commissions which was the true intent of the CNMMN and CCM. A procedure proposed by the IMA secretariat to reach the objective of merging, without modifying the constitution, was to dissolve one commission and modify accordingly the second. This procedure of merging to be followed during the Business Meeting, was approved.

The Commission to be dissolved is the CCM and the organisation of the CNMMN will change accordingly. The constitution gives commissions the freedom to determine their own rules of procedure (article 12e). The resulting commission will be named Commission on New Minerals, Nomenclature and Classification (CNMNC).

#### Suggested vote

We will proceed 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).

Maryse Ohnenstetter IMA secretariat



#### ITEM 7.2 - Slate of Officers with officers to be elected in Kobe (in blue)

	Commission on/			Name	e-mail address
	Working Group on				
1	Applied mineralogy	CAM	Ch	Dogan Paktunc	dpaktunc@NRCan.gc.ca
			V-Ch	Eric Pirard	Eric.Pirard@ulg.ac.be
			Sec	Henrique Kahn	henrkahn@usp.br
					henrique.kahn@poli.usp.br
2	Gem Materials	CGM	Ch	Margherita Superchi	superchi@mi.camcom.it
			V-Ch	Lin Sutherland	lins@austmus.gov.au
			Sec	Takeshi Miyata	Miyata@jewelry-it.ac.jp
					tmiyata@pluto.dti.ne.jp
					t-miyata@gaaz-zenhokyo.co.jp
3	Mineral Growth and	CMGIP	Ch	Katsuo Tsukamoto	ktsuka@mail.tains.tohoku.ac.jp
	Interface Processes		V-Ch		
			Sec	John Rokovan ?	rakovajf@muohio.edu
4	Museums	CM	Ch	Lydie Touret	touret@musee.ensmp.fr
			Sec	Dermot Henry	dhenry@museum.vic.gov.au
5	New Minerals,	CNMNC	Ch	Ernst A.J. Burke	ernst.burke@falw.vu.nl
	Nomenclature and		V-	Frédéric Hatert	fhatert@ulg.ac.be
	classification		Ch1		
			VCh-	Stanislas K. Filatov	filatov@crystal.pu.ru
			2		
			Sec	Williams D. Birch	bbirch@museum.vic.gov.au
6	Ore Mineralogy	COM	Ch	Nigel J. Cook	nigelc@nhm.uio.no
			V-Ch	Kari K. Kojonen	kari.kojonen@gsf.fi
			Sec		
7	Physics of Minerals	CPM	Ch	Georg Amthauer	Georg.Amthauer@sbg.ac.at
			V-Ch	Eiji Ohtani	ohtani@mail.tains.tohoku.ac.jp
			Sec	Daniel Neuville	neuville@ipgp.jussieu.fr
8	Working Group on	WGA	Ch	Frans JM. Rietmeijer	fransjmr@unm.edu
	Astromineralogy	NA/OENA	Ol-	David Varrahan	decidence of the control of the cont
9	Environmental	WGEM	Ch	David Vaughan	david.vaughan@man.ac.uk
10	Mineralogy Inclusions in	WGIM	Ch	Common Consistences	
10	Minerals	WGIW	Sec	Sergey Smirnov Pei Ni	ssmr@uiggm.nsc.ru
4.4		WGEM		Leonid L. Perchuk	peini@nju.edu.cn
11	Mineral Equilibria	WGEIM	Ch V-Ch		llp@geol.msu.ru masaki.akaogi@gakushuin.ac.jp
				Masaki Akaogi	
10	Organia Minaral-	VA/CON4	Sec	Oleg Safonov	oleg@iem.ac.ru
12	Organic Minerals	WGOM	Ch	Norbert Vavra	norbert.vavra@univie.ac.at
40	Committee	0104	Sec	Waltraud Winkler	waltraud.winkler@sbg.ac.at
13	Committee on	CICA	Ch	Bertrand Devouard	devouard@opgc.univ-bpclermont.fr,
	Internet and			Kevin Murphy	kmurphy@iol.ie,
	Computer				
	Applications				

International Mineralogical Association - 2006 IMA annual report to IUGS : Appendix [Tables - Annual reports of IMA Commissions and Working Groups- Elements- Minutes of the Kobe meeting]

#### ITEM 9 - Petition to IMA for an Internet mineral database

One of the most important roles of IMA is to manage the classification and naming of the minerals. It has managed this role for the last fifty years or so and brought order to the field. What it has not done is to disseminate this information to the public in a timely way, leaving that role primarily to the researchers who publish the results in various journal publications. The reasons for this choice of procedure are historical. However, with the advent and widespread use of the Internet, we should examine whether our method for publicizing data can be improved.

Mike Scott, founding president of Apple computers, is willing to provide funding to build a database of the minerals that is freely accessible to all over the World Wide Web. We can build 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. The information will be searchable, including mineral name, major element chemistry, or diffraction patterns. Sophisticated chemistry search routines are being constructed that will allow searching for minerals by chemical formula, oxide weight or atomic percents that will provide results for even minerals in solid solutions. The American Mineralogist Crystal Structure Database will be assimilated into this database to provide a set of data that will permit finding crystal structure data in formats suitable for calculations, viewing of structure and powder diffraction search/match routines. Tom Laetsch will provide a poster at this conference on software for identification of minerals. Journal articles are being collected to provide relevant research papers. The Canadian Mineralogist, American Mineralogist, Zeitshrift fur Kristallographie and Mineralogical Magazine have all agreed to let pdfs of their journals be made and posted for free access and searches. Acta Crystallographica has agreed to have their journal searched and linked with our collection of papers. We can make other pdfs and include them as well, especially the society journals.

With the advent of new spectroscopic equipment, including miniaturized and inexpensive Raman instruments, Mike Scott is funding the RRUFF project to collect definitive samples of all the minerals, characterize them through chemistry and crystallography, and record their Raman spectra. In a few years time we anticipate cell phone sized portable Raman instruments that cost about \$100US, and will be available to almost anyone. These instruments will have the same quality as today's machines that cost \$250,000US. The database is going to provide the world with a trustworthy means to identify the minerals. Robert Downs will be speaking about the RRUFF project on Tuesday.

We request the IMA to consider the offer from Mike Scott and the RRUFF project to build and associate this database with the IMA. Both parties can benefit. IMA will obtain a great resource that should be affiliated with its role of managing the mineral nomenclature, along with the expertise to build it, from the man who is one of the world's great leaders in the computer field. The RRUFF database will obtain the ability to provide unambiguous definitions of the minerals along with the IMA official stamp of approval to go with it. All data will be freely accessible and the opportunity to contribute in other ways will be available. The database is being built with an expandable model, so that other physical properties can be added to it. For instance, it is possible right now to add data from all museums to it, providing a research tool that encompasses the world's mineral collections. There will be no cost to IMA.

Robert T Downs University of Arizona



#### ITEM 10 - IMA funding

COUNTRY	MEMBERSHIP	IMA	MIN	MAX	MINIMUM	MAXIMUM
	(D)	INCOME	COST	COST	INCOME at	INCOME at
	, ,	using D _	(US\$)	(US\$)	1 US\$ per	1 US\$ per
		US\$ 60	per	per	member	member
		·	member	member		
Germany	>1000 (10)	600	0.4*	0.6	1000	*est 1500
Russia		600			1000	*est 1500
USA		600			1000	*est 1500
Canada	999-500 (8)	480	0.48	0.96	500	999
France		480			500	999
Japan		480			500	999
UK		480			500	999
Australia	499-250 (6)	360	0.72	1.44	250	499
Austria		360			250	499
China		360			250	499
Italy		360			250	499
Poland	249-100 (4)	240	0.96	2.4	100	249
Romania		240			100	249
South Africa		240			100	249
Spain		240			100	249
Sweden		240			100	249
Switzerland		240			100	249
Belgium	<25 ass.min.10(1)	60	2.4	6.0	10	25
Brazil		60			10	25
Bulgaria		60			10	25
Croatia		60			10	25
Czech Republ		60			10	25
Denmark		60			10	25
Egypt		60			10	25
Finland		60			10	25
Hungary		60			10	25
Israel		60			10	25
Korea		60			10	25
Netherlands		60			10	25
New Zealand		60			10	25
Norway		60			10	25
Portugal		60			10	25
Slovakia		60			10	25
TOTAL		7560			6760	12386
At 2 US\$ per					13520	24772
member						

Notes (based partly on information from Kase Klein). This is a 'thinking aloud' document and I would value Council's opinion on whether we should proceed further

- 1. IMA is inadequately funded, and could do much more if there was a small increase in income. It is difficult to get some societies to pay (Israel 6 years in arrears, Croatia 4 years, Egypt 3 years, Russia 2 years, Brazil 2 years). The banking costs if electronic transfer is used are high, and many societies forget to add these costs to their subscription. On a US\$ 60 subscription, electronic banking costs can be as high as US\$ 50.
- 2. At present IMA member societies pay dues according to their membership, assigned a value D (see Table) \_ an amount (currently US\$ 60). We do not have exact membership numbers, so the calculations in the Table are based on estimates of maximum and minimum costs to individuals within the D-value groups. There are no societies with memberships between 100 and 25, and I've assumed a minimum membership of 10. For the three biggest societies I've assumed a maximum membership of 1500.

- 3. The formula has the very unsatisfactory effect of making costs to individuals higher for smaller societies, so that an American, German or Russian can be paying between 40 and 60 US cents, while members of tiny organizations with <25 members may be paying between 2.4 and 6 US \$. This seems completely the wrong way round.
- 4. In the Table (two columns at right) I explore the effect of charging all IMA members a flat rate of 1 US\$, and in the bottom row the income from a rate of 2 US\$. Although it is uncertain, because the exact memberships are not known, it is possible that 1\$ might lead to loss of income, whereas \$2 would certainly increase income.
- 5. The attraction of an individual member payment is that the item 'IMA subscription' could appear on the annual request from societies for membership dues. Most members from richer countries would think 2 US\$ remarkably cheap, but this is not necessarily the case for less well-off countries (Russia and China being the most obvious examples of large memberships which may not be so well funded).
- 6. A problem is that the 16 small countries would have very small subscriptions (between 10 (20 at 2 \$ flat rate) and 25 (50) US\$), hardly worth the costs of collecting the money. A simple solution would be to make membership free for all the small countries. This would solve Kase Klein's collection problems instantly, except for Russia.
- 7. We know little about the organization of these small societies and many may be very informal and have no regular subscription even for their own activities. This may be the reason for the problems that some have in payment.
- 8. We really need to know exact membership numbers before we make a decision. It is possible that 1.5 US\$ would be a good figure, giving IMA small but useful increase in income while still being a small sum for members from most countries.

Ian Parsons, 18.8.04



# Minutes of the Second Business Meeting 19th General Meeting of IMA

# Kobe, Japan Thursday 27th, July International Conference Center, Main Hall

Hour: 18H-18H40

#### **IMA Council**

Present: Ian Parsons, President in the chair Takamitsu Yamanaka, First Vice-President Nicolai Yushkin, Second Vice-President Maryse Ohnenstetter, Secretary,

Robert Downs, Treasurer

Alain Baronnet, Kari Kojonen, Marcello Mellini, Walter Maresh, Councilors.

Excused: Tony Naldrett, Past-President, Ian Campbell, Councilor

#### **National Delegates**

	National Society	Balloting power	Delegates
1	Mineralogical Association of Argentina	1	
2	SGGMP : Specialist Group of Geochemistry, Mineralogy and Petrology (SGGMP) (Geological Society of Australia)	3	Alfonso TRUDU Dermot HENRY William BIRCH
3	Mineralogical Association of Austria	3	Ekkehart TILLMANNS Volker HOECK Herta EFFENBERGER
4	Mineralogical Union of Belgium	1	Frédéric HATERT
5	Mineralogical group (Brazilian Society of Geology)	1	
6	Bulgarian Mineralogical Society	1	Yvan BONEV
7	Mineralogical Association of Canada	4	Dogan PAKTUNC Elena SOKOLOVA Mehmet F. TANER Jeanne PAQUETTE
8	Chinese Society of Mineralogy, Petrology and Geochemistry	3	Rucheng WANG Shengrong LI Anhuai LU
9	Croatian Mineralogical Association (Geological Society of Croatia)	1	
10	Mineralogical group (Czech Geological Society)	1	Milan NOVAK
11	Mineralogical Society of Denmark	1	
12	The Mineralogical Society of Egypt	1	Mohamed Ali MANDOUR
13	The Mineralogical Society of Finland	1	Kari KOJONEN
14	French Society of Mineralogy & Crystallography	4	Patrick I CORDIER Daniel NEUVILLE
15	German Mineralogical Association	5	Thomas Karl FËHR Juergen KOEPKE
16	Committee of Economic Geology, Mineralogy and Geochemistry (Geological Society of Greece)	1	
17	Mineralogical and Geochemical Section of	1	Tamas WEISZBURG



the Hungarian Geological Society Mineralogical Society of India 2 18 19 Mineralogical group (Israel Geological 1 Society) 20 Italian Mineralogical and Petrological 3 Giovanni FERRARIS Stefano MERLINO Society Simona QUARTIERI 21 Kiyoshi FUJINO Mineralogical Society of Japan 4 Eiji OHTANI Satoshi MATSUBARA 22 Mineralogical Society of Korea 1 Mineralogical group (Royal Geological and **Ernst BURKE** 23 Mining Society of the Netherlands) 24 The Mineralogical Society of New Zealand 1 Gunnar RAADE 25 Mineralogical group (Norway geological 1 Society) 26 The Mineralogical Society of Poland 2 Marek MICHALIK 27 Mineralogy Group (Geological Society of 1 Portugal) 28 Mineralogical Society of Romania Corina IONESCU 1 Mineralogical Society of Russia 5 Askhab M. ASKHABOV 29 Nicholay BORTNIKOV Tatiana L. EVSTIGNEEVA Stanislav K. FILATOV Nicolay SOBOLEV 30 Mineralogical Society of Slovakia Mineralogical Association of South Africa 2 Sabine VERRYN 3& Roland MERKLE Spanish Society of Mineralogy 32 2 The Swedish Mineralogical Society 33 1 34 Swiss Society of Mineralogy and Petrology 2 The Ukrainian Mineralogical Society 2 35 Mineralogical Society of Great Britain and Mark WELCH 36 4 Ben HARTE Ireland 37 Mineralogical Society of America 5 **Barb DUTROW** George HARLOW **Charles PREWITT** H. Catherine SKINNER Joseph SMYTH Mineralogical Society of Uzbekistan Koneec RUSTAM 38 1

#### 1. Welcome by President Ian Parsons

Delegates were welcomed by the President of IMA for their attendance of the second IMA Business Meeting.

Voting by general agreement was agreed if no opposition on a proposed item to be voted exists. All the items to be voted were presented during the first Business Meeting through overhead transparencies (see appendices of the first Business Meeting).

#### 2. Approval of the agenda

The following agenda was approved by the delegates:

- 1. Change in the Constitution: Communications Officer Position in the Council
- 2. Proposed List of IMA Councilors



- 3. Merging of CNMMN and CCM
- 4. Vote on New Officers in IMA COM/WG
- 5. Meetings

2007

2008-IGC or EGU

2009

2010 - 20th General Meeting of the IMA, Budapest

6. Strategic plans for the IMA

Medal

Rruff database

Funding IMA

7. IMA Commissions and Working Groups

New structure proposal

8. Council: New Committees

There was one question asked by E. Tillmanns relative to an additional modification of the constitution. The proposal consists in including the first Vice-president in charge of organizing the next General Meeting of IMA within the Executive Officers of the IMA Council. This proposal was similar to the one presented by E. Tillmanns during the second council meeting, as he was invited as the organizing chairman of the Budapest meeting.

It was answered that any change within the constitution would require a notification to National Representatives several weeks in advance of the business meeting.

#### 3. Change in the IMA constitution: Communications Officer Position in the Council

The following text proposed by President Ian Parsons and approved by the Council, was submitted for approval to delegates. The proposal consists of amending Article 4B (a) of the Constitution. It should be read (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 <u>Communications Officer</u> form the Executive Committee. A person occupying.... [*No further changes*].

There was one question relative to the duration of the appointment of the Communication Officer. As for the other councillors, there is no limit for this. However, the term should be enough long for the Communication Officer to know everybody in order to be better efficient in his job. Modifications of article 4 B was unanimously approved by the delegates.

Nomo

#### 4. Proposed list of IMA Councillors

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The following list was unanimously approved by the delegates.

IN	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	Councillor	Joel Grice
8	Councillor	Kari Kojonen
9	Councillor	Anhuai Lu
10	Councillor	Walter Maresch
11	Councillor	Marcello Mellini



#### 5. Merging of the CNMMN and CCM

The merging of the CNMMN and CCM consists on the dissolution of the CCM and the reorganization of the CNMMN to be changed into a new Commission on New Minerals, Nomenclature and Classification (CNMNC).

The merging was unanimously approved by the delegates.

#### 6. Election of Officers of some Commissions - Working Groups for the period 2006-2010

Delegates unanimously approved the position of the following officers in the IMA commissions and working groups.

Commissions on /	Position	Name
Working Groups on		
Com. on Applied Mineralogy	Chair	Dogan Paktunc
COM. on Mineral growth and	Chair	Katsuo Tsukamoto
Interface Processes		
COM. on Museums	Secretary	Dermot Henry
COM. on New Minerals,	Vice-Chair 1	Frédéric Hatert
Nomenclature and Classification	Vice-Chair 2	Stanislas K. Filatov
W.G. on Inclusions in Minerals	Chair	Sergey Smirnov
	Secretary	Pei Ni

#### 7. Meetings plan

- 7.1. Rotation of the IMA General Meeting It makes sense that the IMA General Meeting would occur successively in Europe, within the Pacific rim and in Americas. Following the IMA occurrence in Edinburgh, 2002, Kobe, 2006, and Budapest, 2010, the IMA meeting in 2014 should occur in Americas. It was suggested that the 21<sup>th</sup> General Meeting may occur in the United States of America, provided that the Mineralogical Association of America agrees with the proposal.
- 7.2. Next Business Meeting There is a general agreement in the IMA Council to hold a business meeting in 2008, before the one related to the 20th General Meeting in Budapest. Delegates were informed that the Council has still to discuss on the location of the next business meeting in 2008, which may occur during the IGC in Oslo, which is quite expensive, or during the European Geosciences Meeting.

Decision for the location of the 2008 IMA Business Meeting has to be taken during the third Council Meeting in Kobe by the newly elected Council.

7.3. Council Meeting -There is an agreement in the council to hold a Council Meeting every year. The location has still to be determined by the newly elected council in Kobe (third council meeting).

#### 8. Strategic plans for the IMA

- 8.1. Medals An IMA medal for Excellence is proposed to be attributed every year. A committee will be created for the nomination of the distinguished medallists. There is an overall acceptance in the IMA Council that proposals could be done by individuals as well as by national societies. Information relative to the development of the committee will be published within Elements.
- 8.2. Mineral databases It is still a rough project initiated by Bob Downs which would be fund by Mike Scott, funding president of Apple Computers. This project involves the creation of a steering committee, which would look after the development of the project. Initiatives are going on.
- 8.3. IMA funding There was discussion relative to the way IMA is founded. Changing formulae would modify too much the dues for the large societies. However, it is proposed based on the enquiries done that the small societies should pay half of what is actually requested. For example, a society paying 60 \$ /year should now only paid 30 \$.

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It is suggested that the small societies may pay several years in advance to avoid the cost of bank transfer. They may pay during IMA business meeting events as the amount of money is not too large. A receipt will be given.

Three societies are repeatedly delinquent as the Israel, Portugal and Switzerland societies. They are becoming non voting member.

#### 9. Commissions and Working Groups

There is still discussion within the Council on how to develop the activities of the IMA Commissions and Working groups. There is the idea of creating a nucleus of experts at the head to lead the COM/WG more pro-active in addition to keeping up the national representatives.

There is also the idea of a higher rotation of the chairs of IMA COM/WG as some chairs are staying too longer in their position.

There is also the project to create a new committee of nomination for designating the chairs of Com/WG and that of the Council.

#### 10. Council

The IMA President suggested to decouple the running of meeting and managing the IMA. A normal term for the present President is 12 years, successively as a Vice-President when organizing the next IMA General Meeting, as a President following the General Meeting, and then as a past President. The term should be reduced for the President, perhaps by proposing a new way to select IMA president through a nomination committee.

#### 11. Closing by President lan Parsons

The president thanked again the Delegates present at the meeting and closed the business meeting of IMA.

End : 18H40

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**END** of Appendix

Maryse Ohnenstetter IMA Secretary 20 December 2006