

IMA COMMISSION ON PHYSICS OF MINERALS (COM)

Annual report to IUGS for the year 2005

Report of CPM 2005/10/31

1. Commission 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 as Vice-Chairman (ohtani@mail.tains.tohoku.ac.jp) and Daniel Neuville as Secretary (neuville@ipgp.jussieu.fr). 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 2005

1) CPM played following active roles in international and local meetings during 2004-2005. CPM organized and convened sessions in the following meetings: At the AGU2004 fall meeting (San Francisco, Dec. 13-17, 2004), a session of Deep Water Cycle was convened by a member of CPM (Convened by Jacobsen, Smyth, Ohtani, et al.); a session of Transformation Kinetics was convened (by Ohtani and ElGoresy) at the 3rd SMEC meeting at Florida International University (Miami, April, 17th-21st, 2005); a glass session (Moretto and Richet), spectroscopy session (Balan and Ongrin), High Pressure Mineral Physics (Frost et al.) session are organized in EGU meeting (Vienna, Austria, 25-29th, April 25-29th, 2005). CPM organized also two sessions, High Pressure Earth Science and Physics and Chemistry of Minerals at the JEAPSS (Japan Earth and Planetary Sciences Societies Joint meeting, Makuhari, Chiba, 22-26th, May, 2005).

For the forthcoming meetings, CPM involved session planning as follows. CPM submitted five proposed sessions on Mineral Physics for the IMA2006Kobe meeting, and sponsored two mineral physics sessions; Mineralogy and dynamics of the mantle and core (Convened by Bass, Hirose, Ohtani, Rubie) and Structure and physical properties of melts and glasses (Convened by Henderson, Kanzaki, Neuville). CPM involves the Molten Earth session of AGU2005 fall meeting, and is going to make an invited talk. CPM also takes initiative by convening a session on perovskite and post-perovskite and mantle dynamics in 2006 Goldschmidt conference to be held in Melbourne (25-28th August, 2006).

2) Administration - Business Meeting: CPM made a business meeting at IGC meeting, Florence, 2004 and discussed the details of the sessions to be proposed for the IMA 2006 Kobe meeting. CPM submitted five proposed sessions on Mineral Physics for the IMA2006Kobe meeting, and sponsored two mineral physics sessions; Mineralogy and dynamics of the mantle and core (Convened by Bass, Hirose, Ohtani, Rubie) and Structure and physical properties of melts and glasses (Convened by Henderson, Kanzaki, Neuville).

3) Bulletins, News: CPM (Ohtani) report a review on "Water in the mantle" in vol.1 in Elements. Website: Website of CPM is established in 2003 and continuously maintained for communication of the members

Publication: A member of CPM (Ohtani) is now is organizing a GSA book "Advance in Mineral

Physics”, containing 14 review papers on high pressure mineral physics following the IMA session held in 2004 IGC Florence meeting. The book will be published by early 2006.

4. Workplan for 2006

Potential targets: The most important target is to make success of the IMA2006 Kobe meeting. For this purpose, CPM members work to organize the sessions and advatize the sessions as members of organizing committee, program committee, and convenors of the sessions for the meeting.

Business Meetings: Business meeting is planned at the IMA Kobe meeting.

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

Publication: A possibility to make a special issue based on the IMA2006 Kobe meeting is considered.

Books - Special publication: Special publication on advance in Mineral Physics as GSA volume will be published early 2006.

5 List of Officers and National Representatives

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