

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

(2006- 2010)

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 2006 during the 19<sup>th</sup> IMA in Kobe, Japan. Sergey Smirnov (Novosibirsk, Russia) was elected for the Chairman, Pei Ni (Nanjing, China) the Secretary.

### **Summary of the current term's activities:**

#### **I. WGIM Business Meetings**

1. In Aug. 2007, the first business meeting was held in Melburn, Australia. Dr. Smirnov and Prof Pei Ni discussed work plan for 2007 to 2010, which included convening a session on fluid/melt inclusions in Geological Congress (IGC), Oslo 2008, Norway, persistent support on the organizing of ACROFI, 2008, India and hold a session on fluid/melt inclusions in next IMA meeting, 2010, Hungary.

2. The second meeting was in Aug. 2008 in Oslo, Norway where Dr. Smirnov and Prof. Pei Ni discussed invitation of new members of WGIM and information activity of the group.

3. The third Business Meeting was held in Budapest, Hungary in the course of IMA 2010 meeting on August, 23. The style of the meeting was different from those held in last several years. WGIM members Prof. Sergey Smirnov (Russia), Chairman, Prof. Pei Ni (China), Secretary, Prof. Ronald Bakker (Austria), Prof. Fanus Viljoen (South Africa) and one Bulgarian representative participated in this business meeting. The aim of this meeting was to analyze work

of WGIM and to propose IMA Council WGIM officers for the next term. At the meeting it was decided that one of the major task for the nearest future is a renewal of WGIM membership. The attendees agree that the major direction of the WGIM activity is organization and participation in organization of scientific events, e.g. conferences, thematic sessions, etc, in order to focus attention of researchers from different areas of the mineralogy and petrology to the study of inclusions in minerals. It is important to note that international community of inclusion researchers has already established a set of meetings, which make a core for activity of inclusion research scientific community: biannual European Current Research on Fluid Inclusions conference, biannual Pan American Current Research on Fluid Inclusions conference, and biannual Asian Current Research on Fluid Inclusions conference. The latter was established under the patronage of WGIM. In the course of the business meeting Prof. Pei Ni (Nanjing University, China) was proposed as a new-term Chairman of the working group, Prof. Fanus Viljoen (University of Johannesburg, South Africa) – as new-term Vice Chairman and Prof. Ronald Bakker (University of Leoben, Austria) – as a new-term Secretary.

1. In 2008 Aug WGIM was sponsoring a session MPM13 Inclusions in minerals at 33 IGC in Oslo, Norway. Sergey Smirnov (Chairman of WGIM) and Pei Ni (Secretary) were conveners. 18 abstracts were submitted from which 5 were accepted for oral presentation and 11 – for posters. The abstracted papers were devoted to problems of inclusion microanalysis, age and isotopic study of microinclusions. Majority of the presented papers were dedicated to inclusion evidences of magma evolution and its relations to ore formation. One of the important topics, represented at the IGC was development of melt inclusions study methods.

The session was not as big as at the previous Congress. This is explained by extreme conference activity related to inclusions in minerals in 2008 (3 international conferences). However the presented papers initiated lively discussions in the course of the Session and after it.

2. In 2010 August at the IMA 2010 General Meeting WGIM sponsored organization of the thematic session DE45 Fluids in the Earth. This session was convened by Prof. Csaba Szabo (Eotvos University, Budapest, Hungary), Prof. Robert J. Bodnar (Virginia Tech University, Blacksburg, USA) and Prof. Sergey Smirnov (WGIM Chairman, Institute of Geology and Mineralogy SB RAS, Novosibirsk, Russia). The session collected 31 abstracts, from which 14 was chosen for oral and 17 – for poster presentation. Prof. Jacques Touret (Ecole des Mines, Paris, France) and Prof. Bernardo Cesare (University of Padova, Italy) presented invited talks. The topics of the talks and posters covered wide scientific area, including upper mantle fluids

and melts, liquid immiscibility and mantle metasomatism in subduction zones, experiments on mineral formation in the fluid-rich systems, ore-metal transportation, deep and high-grade metamorphism, etc.

3. In 2010 September under sponsorship of WGIM 3rd biannual Conference on Asian Current Research on Fluid Inclusions was successfully held in Novosibirsk 15-21 September, 2010. This conference was joined with Conference on Thermobarogeochemistry which is traditional biannual forum for Russian fluid and melt inclusion researchers. Organizing Committee collected about 150 abstracts. 80 participants from 13 countries (Russia, China, India, Iran, Japan, USA, Germany, Switzerland, Austria, Australia, Portugal, Slovakia, Hungary) contributed their talks and posters, which Organizing Committee has divided between one General and 9 thematic sessions. The majority of talks and posters were collected by sessions "Hydrothermal and magmatic ore formation", IGCP 540 seminar "Compositions of fluids of orogenic gold deposits from state-of-art fluid inclusion microanalysis, and application to mineral exploration" and "Magmatic melts and fluids". Two post-conference field trips were organized in the Altai Mountains, about 500 km far from Novosibirsk. The Conference information was highlighted in the Russian scientific and public mass media.

Editorial Board of Russian Geology and Geophysics supported the idea about publication of papers from ACROFI III&TBG XIV conference as a special issue. Russian Geology and Geophysics is a bilingual (Russian and English) scientific journal. The English version is published by Elsevier. Guest editors of the special issue are prof. Cs. Szabo, S. Smirnov and V. Sharygin. The deadline for manuscript submission is December, 25, 2010.

Scientific Committee of the ACROFI III&TBG XIV decided that next ACROFI meeting will be in Australia in 2012. At the Committee meeting in Novosibirsk it was decided to make ACROFI as a meeting joined to 34 IGC in Brisbane.

This term's WGIM administration is coming to the end. I would like to thank everyone for support during all these years. 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.

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