Report of WGIM, IMA 2010-2014

IMA

Working Group on Inclusion in Minerals(WGIM)

Period:2010-2014

Chairman: Pei Ni

Vice-Chair: Fanus Viljoen Seceretary: Ronald J. Bakker

During past 4 years, WGIM,IMA remain an active working group in the fluid inclusion and geofluid research field. The major things WGIM has done concentrated in the following fields:

- 1. The Working Group on Inclusion in Minerals guided and established the ACROFI biennial conference in 2006 with an aim of providing an international forum for exchange of latest research results and ideas between geoscientists from Asian countries and other nations focusing on studies of fluid- and silicate-melt inclusions. From that time on, WGIM continue to participate in the organization of every ACROFI conference.
- 1-1. WGIM, IMA participated in the organization of ACROFI-III conference which took place at the Institute of Geology and Mineralogy of SB RAS, Novosibirsk, Russia 15-20 September, 2010. Around 60 participants from 10 countries attend the ACROFI III conference. Thematic session include experimental and thermodynamic modeling of fluid systems, subsurface fluid system, fluids and melts in diamond formation, fluids and melts of upper mantle and lower crust, hydrothermal and magmatic ore formation, fluid in metamorphic and deformation process and magmatic melts and fluids. Selected papers based on the materials of conference have been published in the special volume of Russian geology and Geophysics journal.





1-2 WGIM, IMA participated in the organization of ACROFI-IV conference which took place at the Queensland University of Technology in Brisbane in August 2012. About 50 participants from 9 countries attend the ACROFI IV conference. Thematic Sessions include new developments for the study of fluid and melt inclusions, magmatic melts and fluids, metamorphic fluids, subsurface and basinal fluids, fluid and melt inclusions associated with ore deposits and mineral exploration and novel fields of fluid inclusion research. Some selected papers based on the materials of ACROFI IV have been published in the special issue"Fluid and Melt Inclusions " of GEOFLUIDS (Volume 13, Issue 4).



1-3 WGIM, IMA participated in the organization of ACROFI-V conference which took place at the Chang'an University, Xi'an, China on 16-18 May 2014. Thematic sessions include fluids in hydrothermal systems and ore deposits, fluids in sedimentary systems and oil/gas accumulation, magmatic melts and fluids and related mineralization, fluids in metamorphic and deformation processes, fluids in surface processes and thermodynamics and new developments for study of fluid inclusions. 182 participants from 11 countries (USA, Swissland, France, Australia, Canada, Italia, Iran, India, Russia, Algeria, China) attended the ACROFI V conference. ACROFI V organizer (Pei Ni) is now organizing two special issues based on the materials presented on the conference. One is a special issue "fluid and melt inclusions" on Journal of Geochemical Exploration and the other is a special issue "fluid inclusion research" on Acta Geologica Sinica (English Edition).





2. As a tradition, The Working Group on Inclusion in Minerals, IMA organize the session in every International Geologic Conference (IGC) since WGIM was established. In 2012, WGIM organize a

session"Theme 36.8. Inclusion in Minerals" on 34 IGC, Brisbane, Australia. Organizers are Pei Ni, Ronald J. Bakker and Fanus Viljoen.



Theme 36. Regional, Thematic and Specialist Symposia

Coordinator: Ian LAMBERT ian.lambert@ga.gov.au (Australia)

These sessions are organised by groups associated with the IUGS and other international and national associations. Oral presentations may be by invitation of the convenors.

Symposia

36.1 From the Caspian Sea to the Mediterranean Corridor: Paleoenvironmental change and human response from the Last Glacial Maximum into the future [International Union for Quaternary Research (INOUA) 0501 and IGCP 5211

Valentina YANKO-HOMBACH valyan@avalon-institute.org (Canada), Olena SMYNTYNA (Ukraine) and

36.2 Dust from geological sources: impacts on the economy, environment and society [IUGS -Commission on Geoscience for Environmental Management (GEM) Working Group on Dust]

Brian MARKER brian@amarker.freeserve.co.uk (UK) and Jose CENTENO (USA)

Keynote speaker: John H LEYS (Australia)

36.3 Natural hazards and ancient societies [IGCP 567]

Patrick NUNN pnunn3@une.edu.au (Australia), Bruce MCFADGEN (New Zealand), Iain STEWART (UK) and Manuel SINTUBIN (Belgium)

36.4 Environmental change and sustainability in karst systems: relations to climate change and anthropogenic activities (2011-2016) [IGCP/SIDA Project 598]

Cheng ZHANG chzhang@karst.ac.cn (China), Chris GROVES (USA) and Augusto AULER (Brazil)

36.5 International perspectives on teaching geological mapping [GSA International Section] Joann STOCK jstock@gps.caltech.edu (USA) and Anke FRIEDRICH (Germany)

36.6 Greater Altai - a unique rare-metal-gold-polymetallic province in Central Asia [National Committee of Kazakhstan Geologists]

Bulat UZHKENOV bekzhanov@nursat.kz (Kazakhstan), Alexey VARLAMOV (Russia) and Grigory ABRAMSON (Australia).

36.7 Overcoming geoscience challenges in the 21st century by developing and improving the skills of early-career geoscientists [YES Network]

Joanne VENUS eejhv@leeds.ac.uk (UK), Gabriela PERLINGEIRO (Australia) and Michelle COOPER (Australia)

36.8 Inclusions in minerals [International Mineralogical Association Working Group on Inclusions in Minerals]

Pei NI peini@nju.edu.cn (China), Ronald BAKKER (Austria) and Fanus VILJOEN (South Africa)

Keynote speakers: Vadim KAMENETSKY (Australia) and Guoxiang CHI (Canada)

36.9 Uranium resources, supply and demand [IAEA-OECD/NEA Uranium Group]

Ian LAMBERT ian.lambert@ga.gov.au (Australia)

36.10 Strengthening communication between fundamental and applied geosciences and between geoscientists and public [European Federation of Geologists]

Isabel FERNÁNDEZ FUENTES isabel.fernandez@eurogeologists.eu and Ruth ALLINGTON (UK)

36.11 Minerals and related phases

Andrew CHRISTY andrew.christy@anu.edu.au (Australia)



3. The Working Group on Inclusion in Minerals, IMA organize a 5 days short course "fluid in the Earth" from 10 to 14 May 2014 in Nanjing China (organizer: Pei Ni). Five lecturers include prof. Robert J.Bodnar from Virginia Tech, USA; Prof. Benedetto De Vivo From University of Napoli Federico II, Italy; Dr. James D. Webster from American Museum of Natural History; Prof. Maria Luce Frezzotti from University Milano Bicocca, Italy and Dr.Dr. Leonid Danyushevsky from University of Tasmania, Australia. 95 students from Russia, India, Pakistan, China etc attend the short course.



- 4. The WGIM, IMA organize a session in every IMA general meeting. A session "Fluid in the Erath" under the Theme" Deep Earth" is organizing at the IMA 2014 General Meeting in Gauteng, South Africa by WGIM. Organizers are Pei Ni and Ronald J. Bakker.
- 5. The Working Group on Inclusion in Minerals was participated in the organization of 21th biennial conference of the European Current Research on Fluid Inclusions(ECROFI XXI, 2011), Leoben(Austria). The ECROFI XXI was held on August 9-11,2011 at the University of Leoben in Austria. The ECROFI XXI was attended by about 100 participants from 21 countries. Europeans made up the largest part of Participants(52%), followed by Azians(27%), Americans(15%) and Australians(6%). A total of 50 oral presentations and 41 poster presentations were included in the sessions on theoretica studies on fluid and mineral properites, experimental studies, advances in analytical methods, paleoclimate, groudwater, diagenetic and petroleum fluids, ore deposits, deep crustal and mantle fluids, and melt inclusions and igneous processes. The abstracts of the conference were pulished in Berichte der Geologischen Bundesantalt(Report of the Geological Survey of Austria).



6. WGIM, IMA were involved in the organization of a number of small scale workshops and short courses (organized by Ronald J. Bakker):

Fluid incluion research, University of Leoben, Austria. (2010,25 participants; 2011, 16 participants) Fluid incluion, critical review, applications, computer modeling, University of Leoben, Austria. (2012,5 participants; 2013, 13 participants; 2014,6 participants)

Short course during ECROFI XXI meeting(2011)(20 participants)

Fluid incluion in digenetic environment, during the 29th IAS meeting of sedimentology, Schladming, Austria.(15 participants)

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