



SIG No: 11

Reported Period: 2011-2012

Report Date: 21.05.2012

Reported by: Leonid Dubrovinsky, Alfonso San Miguel, Karen Friese

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1. Introduction. (50 words max.)

For the reported period SIG11 concentrated its activity on organizing conferences and workshops. Special attention was paid to participation of young scientists in the schools and workshops. SIG11 is also actively taking part in planning activities and beam-lines at large-scale facilities – ESRF, PETRAIII, FRMII.

2. SIG web site:

SIG 11 url: <http://www.sig11online.com/> (currently still under constriction)

3. Number of ECA individual members registered with the SIG according to
(<http://www.xray.cz/eca/im-payment.htm>)

SIG 11 Crystallography under Extreme Conditions 82

4. Existence of a SIG mailing list Yes

Address of the mailing list: <http://list.ehu.es/mailman/listinfo/ecasig11>

Number of members in the SIG mailing list : 133

5. Approximate total number of researchers involved in the SIG (please indicate the basis for the estimate)

About 200 people based on the number of participants of MS at ECM25/26 and special sessions at EHPRG and AIRAPT organised or co-organized by SIG11, and the number of members of the SIG mailing list

6. List of MS organized by the SIG at the last ECM

- High-Pressure Crystallography at Elevated Temperatures;
- Structure and Properties of Functional Materials at Extreme Conditions;
- Phase Transitions in Minerals and Their Planetary Effects;
- Aperiodic Crystals at Non-Ambient Conditions

Plenary Lecture:

Prof. M. McMahon (UK)

- Single Crystal Diffraction Studies at Multimegabar Pressures

7. Prizes sponsored/coordinated

8. Past Activities other than Microsymposia at ECM

Title: 49th European High Pressure Research Group Conference, Budapest, Hungary, 28.08-2.09.2011.

Number of Participants: 250

Report of SIG 11 (cont.)

Level of involvement of SIG in the activity:

- ECA Individual members registered with the SIG involved in the organizing committee
- ECA Individual members registered with the SIG involved as lecturers

Other Sponsors/Organizers: EHPRG

Short Description: (25 words max.)

The 49th EHPRG was a large scope conference. Several sessions were dedicated to subjects closely related to high-pressure crystallography; SIG11 participated in advertising the conference and the organisation of several sessions.

Title: Workshop on Dynamic X-ray Diffraction & Spectroscopy Experiments at Extreme

Conditions: Implementing time resolved experiments for 3rd and 4th generation light sources, 5-6.05.2011, Hamburg, Germany

Number of Participants: 30

Level of involvement of SIG in the activity:

- ECA Individual members registered with the SIG involved in the organizing committee
- ECA Individual members registered with the SIG involved as lecturers
- endorsed (SIG logo on the web page/leaflets)

Sponsored by ECA? No

Other Sponsors/Organizers: HASYLAB/DESY

Short Description: The workshop provided an opportunity to discuss types of time-resolved structural investigation at extreme conditions to be conducted at 3rd generation synchrotron sources and at X-ray Free Electron Lasers.

Title: Workshop on Extreme Conditions Studies at ESRF, 7-8.02.2011, Grenoble, France

Number of Participants: 25

Level of involvement of SIG in the activity:

- ECA Individual members registered with the SIG involved in the organizing committee
- ECA Individual members registered with the SIG involved as lecturers
- endorsed (SIG logo on the web page/leaflets)

Sponsored by ECA? No

Other Sponsors/Organizers: HASYLAB/DESY

Short Description: The workshop provided an opportunity to discuss the current stage and future (including direction of upgrade program) of high pressure research at ESRF.

Title: XXII Congress and General Assembly of the International Union of Crystallography, 22-30.08.2011, Madrid, Spain

Number of Participants: 2655

Level of involvement of SIG in the activity:

- ECA Individual members registered with the SIG involved in the organizing committee
- ECA Individual members registered with the SIG involved as lecturers
- endorsed (SIG logo on the web page/leaflets)

Sponsored by ECA? No

Other Sponsors/Organizers: International Union of Crystallography

Short Description: This was a large scale conference in which many of the individual members of SIG11 participated and contributed to the various Microsymposia dedicated to subjects related to the SIG's activities.

Report of SIG 11 (cont.)

Title: Joint Meeting of the DGK, DMG and OMG, 20–24.09.2011, Salzburg, Austria

Number of Participants: 150

Level of involvement of SIG in the activity:

x ECA Individual members registered with the SIG involved in the organizing committee

x ECA Individual members registered with the SIG involved as lecturers

O endorsed (SIG logo on the web page/leaflets)

Sponsored by ECA? No

Sponsors/Organizers: DGK, DMG, ÖMG.

Short Description: The meeting was a large scope conference. Several sessions have been dedicated to subjects directly related to high-pressure crystallography.

9. Future/Programmed Activities.

Title: 27th European Crystallographic Meeting, August 2012, Bergen, Norway.

Number of Participants: estimated ???

Level of involvement of SIG in the activity:

x ECA Individual members registered with the SIG involved in the organizing committee

x ECA Individual members registered with the SIG involved as lecturers

x endorsed (SIG logo on the web page/leaflets)

Sponsored by ECA? YES

Other Sponsors/Organizers: none.

Short Description: SIG11 is involved in the organization of 5 microsymbiosia and has suggested two keynote lecturers.

Title: 2nd Workshop on “High Pressure Single Crystal Diffraction”, Satellite Workshop to ECM27, August 2012, Bergen, Norway.

Number of Participants: estimated 50-55

Level of involvement of SIG in the activity:

x ECA Individual members registered with the SIG involved in the organizing committee

x ECA Individual members registered with the SIG involved as lecturers

x endorsed (SIG logo on the web page/leaflets)

Sponsored by ECA? YES

Other Sponsors/Organizers: Commercial Companies, European Mineralogical Union

Short Description: The aim of the workshop will be to teach participants how to perform single-crystal high-pressure X-ray diffraction measurements and to complete the data reduction and analysis to obtain the highest-quality data. An overview over single crystal diffraction experiments at large scale facilities will be included.

Title: 50th European High Pressure Research Group Conference, Thessaloniki, Greece, 16.09-21.09.2012.

Number of Participants: 250

Level of involvement of SIG in the activity:

x ECA Individual members registered with the SIG involved in the organizing committee

x ECA Individual members registered with the SIG involved as lecturers

Other Sponsors/Organizers: EHPRG

Short Description: (25 words max.)

Report of SIG 11 (cont.)

The 50th EHPRG is a large scope conference. Several sessions were dedicated to subjects closely related to high-pressure crystallography; SIG11 participate in advertising the conference and organisation of several sessions.

Title: High Pressure Semiconductor Physics International Conference HPSP-15, July 2012, Montpellier, France.

Number of Participants: 90

Level of involvement of SIG in the activity:

ECA Individual members registered with the SIG involved in the organizing committee

ECA Individual members registered with the SIG involved as lecturers

endorsed (SIG logo on the web page/leaflets)

Sponsored by ECA? No

Other Sponsors/Organizers:

Short Description: Semiconductor physics at high pressure including sessions relating structure determination and electronic properties.

Title: IUCR Commission on High Pressure 2012 Meeting, September 2012, Mito, Japan

Number of Participants: 70-100

Level of involvement of SIG in the activity:

ECA Individual members registered with the SIG involved in the organizing committee

ECA Individual members registered with the SIG involved as lecturers

endorsed (SIG logo on the web page/leaflets)

Sponsored by ECA? No

Other Sponsors/Organizers: IUCR

Short Description: Annual meeting of the commission on high pressure of the IUCR. Individual members of SIG11 will participate in the workshop which is entirely devoted to high pressure research.

10. Other matters. (50 words max.)

SIG11 officers are working on the development of the WEB-site. It is currently in testing stage.

11. Brief annual activity report (100 words max.)

The SIG is currently organising five microsymbosia related to high pressure crystallography for the ECM27 in Bergen. In addition SIG11 suggested to plenary speakers at ECM27 and SIG-officers and individual members are actively involved in the organization of a satellite workshop at ECM27. In 2011-2012 the mailing list of the SIG was fully functioning, contains currently 133 subscribers, and is actively used for advertising ECA, IUCr, and SIG11 supported events. In 2011 SIG11 has organized workshops and schools which aim at providing experimental and methodological expertise on high pressure crystallography to the scientific community, in particular to its younger members. Individual members of SIG11 participated and contributed to the microsymbosia related to high pressure research at the IUCR at Madrid. Other activities of the SIG are focused on the development of new infrastructure at large scale facilities (PETRA III, FMR II, ESRF).



12. List SIG officers, name and e-mail, and specify their main function in the SIG:

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