1. Introduction.

The aim of this SIG is to raise the awareness and acceptance of Electron Crystallography (EC) to rank comparable to X-ray crystallography. This requires concerted effort of groups and researchers in this field and external support. Our purpose is realization of full potential of electron optical methods in structural research.

2. SIG web site:
SIG4  http://sig4.ecanews.org/

SIG4 has an active homepage www.gfc.rwth-aachen.de/sig4/

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

SIG4  Electron Crystallography  28

4. Existence of a SIG mailing list  O Yes / ● No

Address of the mailing list:
Number of members in the SIG mailing list :

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

12 active members (researchers) that organize schools and other activities at regular basis and 28 total members (researchers) that appear in our records (attend the SIG4 meetings etc').

6. List of MS organized by the SIG at the last ECM – at ECM 25

MS: "Quantitative Electron Crystallography", chairs: Prof. J.P. Morniroli, Prof. S. Hovmöller and
Keynote Lecture: Jan Pieter Abrahams  ‘Macromolecular Electron Crystallography’, chair: Prof. S. Hovmöller

7. Prizes sponsored/coordinated

We have launched a prize for remarkable research in the field of electron crystallography to the best student/postdoc lecture/poster. This prize is sponsored by “Calidris” and “Nanomegas” companies. The prize was rewarded twice:
2009 ECM25 conference in Istanbul, best poster on electron crystallography subject, given to Entico Mugnaoli, (Univ Mainz, Germany).
2009 Israel Society for Microscopy annual meeting, the prize was given to Maya Kedem (Technion, Israel) for her research in the electron crystallography area.

We intend to continue and reward this prize at conferences where electron crystallography is widely presented.
8. Past Activities other than Microsymposia at ECM

Title: Electron Crystallography school
Number of Participants: 40
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
O endorsed (SIG logo on the web page/leaflets)
Sponsored by ECA?
OYes/ • No
Other Sponsors/Organizers: organizers Prof. Xiaodong Zou and Prof. Sven Hovmoller
Short Description: (50 words max.)
A 4-day school on Electron Crystallography was organized in KAUST, Saudi Arabia on January 17-20, 2010. 40 students attended the school were all from KAUST.

Title: Workshop on Electron Crystallography in Materials Science
Number of Participants: 20
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
O endorsed (SIG logo on the web page/leaflets)
Sponsored by ECA?
OYes/ • No
Other Sponsors/Organizers: organizers Prof. Peter Moeck, Dr. Stavros Nicolopouos and Prof. Sven Hovmoller
Short Description: (50 words max.)
The workshop was organized during the Materials Research Society (MRS) spring meeting in San Francisco, April 2009

Title: School on Electron Precession (August, 2009)
Number of Participants: 27
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
O endorsed (SIG logo on the web page/leaflets)
Sponsored by ECA?
OYes/ • No
Other Sponsors/Organizers: organizer Prof. J.P. Morniroli (scientific director)
Short Description: (50 words max.)

Title: Summer School on Diffraction-based Structure Analysis in the TEM (September, 2009)
Number of Participants: 26
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
O endorsed (SIG logo on the web page/leaflets)
Sponsored by ECA?
OYes/ • No
Other Sponsors/Organizers: organizer Prof. J. L. Labar
Short Description: (50 words max.)
The school is joined to the Applied Crystallography Conference. School’s homepage:
http://crystallography.us.edu/

Title: Electron Crystallography school: New methods to explore structure and properties of the nano world (June 2011, Erice, Italy)
Number of Participants: approx. 30-50
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) (intend to)
Sponsored by ECA?
OYes/ O No – sponsored partially by IUCr
Other Sponsors/Organizers: organizers Prof. A. Avilov, Dr. U. Kolb and Dr. L. Meshi
Short Description: (25 words max.)
The course intends to review the structure solution using electron crystallography methods as well as novel applications. Web page: http://www.crystalerice.org/erice2011/2011ec.htm

Title: ECM 26 (Germany August 2010)
1 keynote lecture and 1 MS

10. Other matters.
Special issue of Zeitschrift fuer Kristallographie Crystalline Materials Volume 225, Issue 2-3, 2010, with the theme Electron Precession was published.

11. Brief annual activity report
This year we have proposed 2 MS and 1 keynote lecture for ECM 25 and for ECM 26, each time 1 MS and 1 keynote lecture was chosen and our members chaired and spoke at these sessions. One of the main activities of SIG4 is teaching in order to promote electron crystallography as science for structure determination; this is why we organize each year as many schools as possible and, as can be seen from this report, the number of participants is quite high.
Our SIG provides each year detailed activity report. Please see information at the
http://www.ecanews.org/sig_activity.php

12. List SIG officers, name and e-mail, and specify their main function in the SIG:
Chair: Dr. Louisa Meshi, BGU (Israel), louisa@bgu.ac.il
Secretary: Dr. Ute Kolb, Mainz (Germany), kolb@uni-mainz.de
Dr. Thomas Weirich, email: t.weirich@gmx.de - past chairman

Supplementary Materials.
None