

SIG5

Reported Period: September 2024- August 2025

Report Date: 12th July 2025

Reported by: Isabella Pignatelli, Oleg Siidra, Sergey Krivovichev

1. Introduction.

SIG5 focus on the fine-scale characterization of the structure and properties of minerals and related inorganic compounds. Attention is paid for the development of theoretical and experimental methods to investigate their crystal-chemistry and crystal structures.

2. SIG web site:

SIG5 <http://sig5.ecanews.org/>

Facebook page <https://www.facebook.com/groups/253256622175656/>

3. Number of ECA individual members registered with the SIG5 according to ECA website:

90

4. Existence of a SIG mailing list Yes (general renewal is required)

Number of members in the SIG mailing list: 164

5. Approximate total number of researchers involved in the SIG (please indicate the basis for the estimate) 164 (this is the number of members of the mailing list, *i.e.* number of researchers who explicitly indicate their involvement in the SIG)

6. Past Activities

Titre: 35rd European Crystallographic Meeting

<https://ecm35.ecanews.org>

Number of participants: 700

Level of involvement of SIG in the activity: SIG5 gave its support to organize the conference and it proposed three MS and a keynote.

Titre: Stellenbosch Introductory Crystallography School 2025

<https://www0.sun.ac.za/chemistry/crystallography-school/>

Number of Participants: 8 participants

Level of involvement of SIG in the activity: SIG5/ECA individual member (I. Pignatelli) was involved in the teaching classes.

Sponsored by ECA? No

Short description: the school aims to allow remote access to the single-crystal X-ray diffractometers at Stellenbosch University to other researchers across Africa. Part of this project involves training researchers to use the diffraction equipment. Researchers from sub-Saharan Africa will travel to Stellenbosch for extensive hands-on training, after which they will be able to access our instruments remotely on their return home.

The school will focus on:

- (i) Single crystal X-ray diffraction
- (ii) Symmetry, point groups and space groups
- (iii) Diffraction physics
- (iv) Data collection
- (v) Structure solution and refinement

7. Future/Programmed Activities.

Title: 27th IUCr congress, 11-18 August 2026 (Calgary, Canada)

Level of involvement of SIG in the activity: SIG5 helped to propose MS and one of us will participate as chair for a MS about modular structures.

8. Other matters. (50 words max.)

None.

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

SIG5 keeps promoting activities aimed to enhance the interest towards Mineral & Inorganic Crystallography. We hope to update the website and improve the relationships, as well as the activities between the members in the next future.

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

Chair Dr. Isabella Pignatelli isabella.pignatelli@univ-lorraine.fr

Vice-chair Prof. Dr. S.V. Krivovichev skrivovi@mail.ru

Secretary Dr. Oleg Siidra o.siidra@spbu.ru