



Schweizerische Gesellschaft für Kristallographie
Société Suisse de Cristallographie
Società Svizzera di Cristallografia
Swiss Society for Crystallography

Sektion für Kristallwachstum und Kristalltechnologie
Section de Croissance et Technologie des Cristaux

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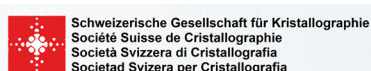
SGK / SSCr NEWSLETTER

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Schweizerische Gesellschaft für Kristallographie
Société Suisse de Cristallographie
Società Svizzera di Cristallografia
Societad Svizzera per Cristallografia

Howard Flack Crystallographic Lecture Series

(1943-2017)

$$C = (1-x)X + x\bar{X}$$

April 16 - 20, 2018



Prof. Dr. Omar Yaghi
University of California, Berkeley

PSI Villigen
ETH Zürich
UNI Zürich
Uni Bern
EPFL Sion
Uni Genève
Uni Fribourg

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Start of the Howard Flack Crystallographic Lecture Series
Report of General Assembly of the SGK/SSCr 2017 in Geneva

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Start of the Howard Flack Crystallographic Lecture Series on April 16 – 20, 2018.

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The President's Page



Dear Member of the Swiss Society of Crystallography,
I hope that you had an excellent start of 2018 and be ready for an even more exciting continuation.

This is the last year of my presidency and membership in the board of SGK, and I hope that it will be as fruitful as all the previous years.

After the excellent annual meeting organized in Geneva, the board of the society has accepted the idea proposed at the general assembly to organize a series of crystallographic lectures, named after the late Howard Flack, a colleague and a friend who is remembered for his enormous contribution to the field and who has contributed to grow the prestige of our community and association.

This initiative has attracted also the Swiss Academy of Science (platform, Mathematics, Astronomy and Physics, to which we belong), which will partially sponsor the lecture series.

For the first event, we have the great honor to host Professor Omar Yaghi from Berkeley, a pioneer in the field of metal organic frameworks, who will give seven lectures in Switzerland, at Universities or research facilities.

This is an extraordinary opportunity to disseminate the role and the most important results of the crystallography and show to the chemical, physical and biological communities how strong could be the cooperation.

This is the inaugural event and of course, I hope that more lecture series will come in the future and I invite the colleagues to make suggestions for the future.

I would also like to anticipate that, in cooperation with the High Alpine Research Station at Jungfrauoch, we will organize in 2019 a special symposium dedicated to the memory of Max Perutz, who was a frequent visitor at Jungfrauoch for scientific and amusement reasons.

Another suggestion proposed at the Geneva meeting concerns a special funding to support participation of retired members of the society to international meetings, for which a proposal will be elaborated in the next future and presented carefully at the next annual meeting, to be held at Paul Scherrer Institute, organized by Antonio Cervellino and Nicola Casati.

I hope that all these initiatives (and others described in this newsletter) will find your appreciation

Piero Macchi
(President of the SGK-SSCr)

Important Notice concerning the Newsletter

Dear members of the Swiss Society for Crystallography,

As many associations already do, we would like to **distribute our newsletter in the future preferentially via email in pdf-format**. This will drastically reduce the number of printed copies and therewith contribute to an economic and sustainable policy.

For those of you who might still prefer to receive the printed copies, we offer this option too:

For receiving hardcopies of the SSCr-newsletters in the future, please return the coupon below to the secretary of the SSCr:

Dr. Michael Wörle
ETH Zürich
Vladimir-Prelog-Weg 1
CH-8093 Zürich

or send a short notice via email to:

woerle@inorg.chem.ethz.ch

or give me a phone call:

+41 44 632 56 84



Please send me printed copies of the SSCr newsletter as before:

Name: _____



Swiss Society of Crystallography
Howard Flack Crystallographic Lectures
Series

Prof. Dr. Omar Yaghi
(University of Berkeley, USA)



Paul Scherer Institute, Monday April 16 h. 14.00

WHGA/001 PSI West, 5232 Villigen

Crystal structures of molecularly stitched and woven materials

ETH Zürich, Tuesday April 17 h. 11.00

Room HIL E9 Hönggerberg, Stefano-Francini-Platz 5, 8093 Zürich

Reticular chemistry: The atom, the molecule, the framework

University of Zürich, Tuesday April 17 h. 17.00

Irchel Campus, Y15-G-60 Winterthurerstrasse 190, 8057 Zürich

From A. Werner and G. N. Lewis to metal-organic frameworks and covalent organic frameworks

University of Bern, Wednesday 18 April h. 16.30

Room EG16, Department of Chemistry, Freiestrasse 3, 3012 Bern

Reticular materials for harvesting water from desert air

EPFL Sion, Thursday 19 April h. 10.30

Zeuzier seminar room, I17 Rue de l'Industrie 17, 1951 Sion

MOFs and COFs as porous crystals for clean energy and water from desert air

University of Geneva, Friday 20 April h. 10.30

Room 1S081 science III, 30, quai Ernest-Ansermet, 1211 Genève 4

Crystals as Molecules

University of Fribourg, Friday 20 April h. 17.00

Main auditorium, Chemistry Department, Chemin du Musée 9, 1700 Fribourg

Reticular synthesis and the design of new crystalline materials

Report on the first Howard Flack Crystallographic Lecture Series

From 15th to 20th April 2018 we had the great pleasure to welcome **Prof. Omar Yaghi**



Evelyne Flack and Omar Yaghi after the lecture at the University of Geneva.

from the University of California, Berkeley, as the first guest of our **Howard Flack Crystallographic Lecture Series**. Prof. Yaghi agreed on a very dense schedule, giving 7 different lectures in just 5 days all over Switzerland. Based in a Hotel in Zürich, he started his Switzerland-tour at the PSI in Villigen. In the evening we enjoyed dinner at Prof. Dieter Schlüters place. The next day, he gave two lectures, one in the morning at ETH Zürich and one in the afternoon at the University of Zürich and both lecture rooms were filled up to the last seat. In the few hours before his lecture at

UZH, Omar was in high demand for short personal chats with members of the Department of Chemistry. We were fascinated to hear about his developments in the MOF field, particularly the use of such materials for the extraction of water from desert air.



Omar Yaghi and Piero Macchi in Bern

The evening meal that day at



Jack Dunitz and Omar Yaghi after his talk at the ETH Zürich

Restaurant Wolfbach was accompanied by lively discussions with a dozen participating colleagues.

His next stop was the University of Bern. There he gave a lecture entitled "Reticular materials for harvesting water from desert air" at the department of Chemistry of the University of Bern. The lecture was organized in cooperation with the Bernese Chemical Society, within the traditional semester program. Many students attended the lecture and had the occasion to discuss and interact with Prof. Yaghi during his short stay in Bern, from where he continued to the EPFL in Sion and then to the University of Geneva. Prof. Yaghi's short visit to UNIGE was met with

enthusiasm and a large crowd of students from several departments attended his lecture. Howard Flack's wife Evelyne has been also in the audience. She also enjoyed the lecture and had a short chat with Prof. Yaghi afterwards. The talk was followed by a long session of discussion, which reflected the great interest of the audience, before he left to go to Fribourg in the afternoon, from where he returned to Zürich to catch his flight back to San Francisco. It has been indeed a great experience to have Prof. Yaghi here in Switzerland and we thank him very much for the fascinating talks and also for accepting such a dense schedule.

Michael Wörle

Obituary Professor Michael Schieber (1928 – 2017)

It is with great sadness that the whole international crystal growth community has learned of the passing of Professor Michaël Schieber, aged 89, on October 17, 2017. Professor Schieber has been one of the guiding lights of crystal growth since the 1960s, he was one of the fathers of the International Organisation for Crystal Growth as well as the founder and first Editor of the Journal of Crystal Growth. He first identified the need for the crystal growth community to grow and cooperate, to be represented by an active and renowned international organisation, to communicate and share scientific achievements through dedicated conferences and a dedicated journal. He always played a role of leadership and inspiration with enthusiasm and outstanding competence.

Professor Schieber received the PhD in Electronic Materials at the Weizmann Institute of Science, Israel, in 1962. During his impressive career, he was initially research fellow then research staff member at Harvard University, US, then Senior Lecturer, Associated Professor, and Full Professor, since 1974, at the Hebrew University in Jerusalem, Israel, where, since 2000, he was holding the Nahman Jahler Chair of Applied Physics, as Professor Emeritus and Head of Crystal Growth and Nuclear Spectroscopy Laboratory.

His contribution to the science of crystal growth, both from the theoretical and experimental point of view, was outstanding and will always animate the spirit of our community and influence our work.

The Obituary of the International Organisation for Crystal Growth and the contributions from all the national organisations and his friends and colleagues can be found at <http://www.iocg.org/>

Enrico Giannini

Report SGK/SSCr Annual Meeting 2017

The annual meeting of the Swiss Society for Crystallography was held at the University of Geneva, on September 12, 2017. The general organization of the event was maintained as in the past years, with the scientific program covering one full day, including the General Assembly of the Society. Such a dense program limits the number of oral contributions that are selected according to the general topic of the meeting, which was, this year, “*Crystallography meets Physics*”. With this general topic, the meeting aimed at giving value to the applications of crystallography in physics and reinforcing the cooperation between the Swiss institutions and scientists that are active in the field of crystallography and the scientists who exploit crystallography for more fundamental research in solid state physics. With this scope, the conference was structured around three topical sessions: 1) *Diffuse scattering*; 2) *Femto-crystallography*; 3) *Low-dimensional materials and interfaces*, each opened by a topical plenary lecture. Dmitry Chernyshov, from SNBL at the ESRF, France, has opened the first session with a lecture about the promising recently developed 2D-mapping of lattice distortion of a ferroelectric material in electric field. The invited speaker who opened the second session was Jörg Standfuss, from PSI, Villigen, giving a lecture about the impressive perspectives opened by the serial crystallography that can be realized in the near future at the Free Electron Laser at PSI. Marco Gibertini, from EPFL, Lausanne, has given a fascinating overview of the computational methods developed within the NCCR-MARVEL, for the computational design and discovery of novel 2D-materials. Six contributed talks and the invited talk of the SSCr-2017 Ph. D. Prize Winner, Stef Smeets, as well as a poster session with 20 contributions, have completed the scientific programme, which is summarized hereafter:

Session 1: **Dmitry Chernyshov** – ESRF, Grenoble – Invited

Ferroelectrics under electric field probed by synchrotron radiation

Björn Wehinger, University of Geneva: *Secrets of diffuse scattering.*

How to probe elasticity and magneto-elastic waves using x-rays

Oksana Zaharko, PSI, Villigen: *Spiral spin liquid and the emergence of a vortex-like state in MnSc_2S_4 – an example of the importance of single-crystal neutron diffraction in physics; presentation of the new instrument ‘Zebra’ at SINQ*

SSCr Prize: **Stef Smeets**, University of Stockholm, 2017 SSCr Ph. D. Prize Winner: *Development of Hybrid Methods for Solving the Structures of Polycrystalline Materials*

Session 2: **Jörg Standfuss** – PSI, Villigen - Invited

Serial Crystallography at Synchrotrons and Free Electron Lasers

Anjani K. Maurya, Empa, St Gallen: *Structural analysis of electrospun fiber membrane by SAXS and WAXS*

Paula Corcosa, University of Fribourg: *New Monometallic and Heterobimetallic Complexes of Silver(I), Zinc(II) and Copper(II) with an Amino Acid Derived Ligand as Potential Antimicrobial Agents*

Session 3: **Marco Gibertini**, EPF Lausanne - Invited

Novel 2D materials from high-throughput computational exfoliation of experimentally known compounds

Rebecca Scatena, University of Bern: *Electron density and Dielectric properties of highly porous Metal Organic Frameworks*

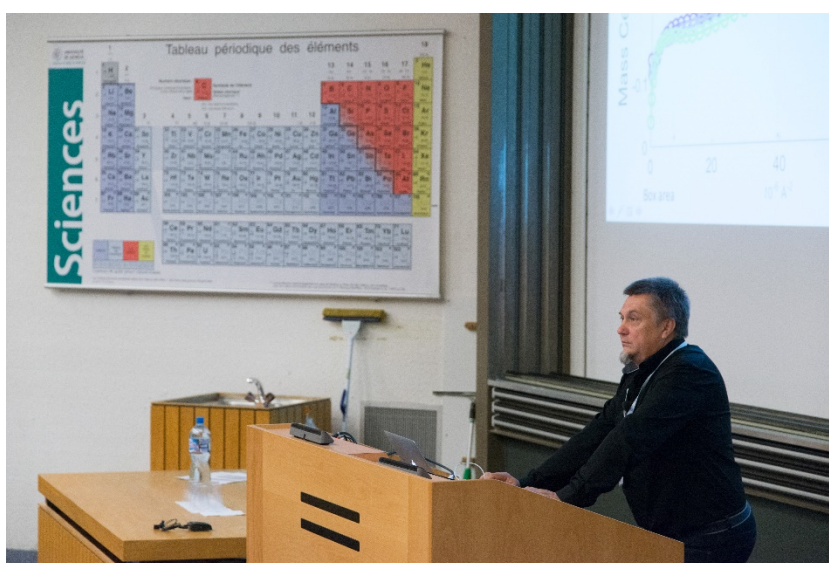
Mehrdad Asgari, EPFL Sion: *In-situ neutron diffraction study of carbon dioxide adsorption on M-BTT frameworks, a series of highly crystalline MOFs*

The SSCr has awarded Michelle Ernst and Tomasz Poreba from the University of Bern with the prize for the best poster presentation for the work “*Bonding in Polyiodides*”. The meeting was attended by 70 persons, including several students and a comforting community of young scientists.

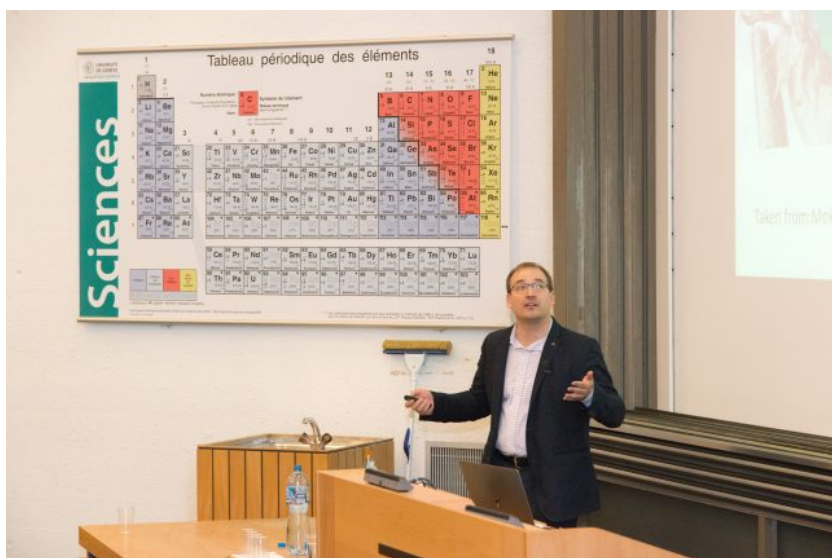
The Swiss Society of Crystallography warmly thanks all the speakers, poster contributors, sponsors and participants for making this event successful.



High level of attendance at the SSCr 2017 annual meeting



Dmitri Chernyshov during the first lecture



Jörg Stadfuss during the second invited lecture



Marco Gibertini during the third invited lecture



Stef Smeets gives the invited talk awarded with the 2017 SSCr Prize



Michelle Ernst and Tomasz Poreba receive the prize for the best poster presentation

Enrico Giannini and Céline Besnard

Meetings, Conferences, Workshops, Schools, Courses

Annual SGK/SSCr-Meeting at PSI Villigen



Swiss Society for Crystallography SGK / SSCr Annual meeting 2018

Wednesday, September 12, 2018
Main Auditorium – PSI Villigen
WHGA/001 – 5232 Villigen PSI

Meeting Title:
“The Breadth of Crystallography”

The 2018 annual meeting of the SGK/SSCr will take place at the **PSI in Villigen** on **Wednesday 12th of September 2018**.

Meeting registration

From 1st May 2018 on <http://indico.psi.ch/event/SGK-SSCr/annualmeeting2018>

Abstract submission

Until 8th July 2018 by email to sgk-sscr_meeting2018@psi.ch

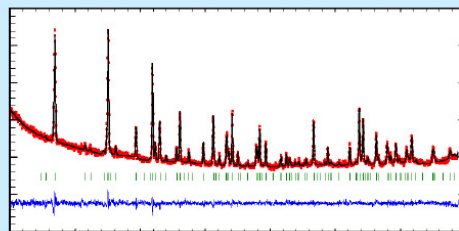
Please indicate your preference for poster or oral communication

The detailed program can be found here:

<http://indico.psi.ch/event/SGK-SSCr/annualmeeting2018>

Local organization and contact

On behalf of the Swiss Society for Crystallography: Antonio Cervellino, Nicola Casati



16th European Powder Diffraction Conference

1 - 4 July 2018 John McIntyre Conference Centre
University of Edinburgh, Edinburgh, UK

<http://epdic16.efconference.co.uk/>



Deadline extended to April 8, 2018

<http://epdic16.efconference.co.uk/abstracts/>

Symposium on the occasion of the „Chemical Landmark 2019“

Advance notice:

The award of the «Chemical Landmark 2019» to the High Altitude Research Station Jungfrauoch given by the Swiss Academy of Sciences will be occasion for a one-day Symposium in **Bern**, which is planned for the **25. April 2019**. The Symposium will highlight the historical and current role of this Research Station in an international context. Since Max Perutz (Nobel Prize in Chemistry, 1962) had been conducting studies at the Jungfrauoch Research Station in the 1930s, the Symposium will be of interest for the crystallographic community as well. Consequently, the Swiss Society for Crystallography will together with the Swiss Chemical Society co-organize this event. More details will follow.

Contact person: Prof. Silvio Decurtins, President of the International Foundation for the High Altitude Research Stations Jungfrauoch and Gornergrat.

26th Croatian-Slovenian Crystallographic Meeting

June 13th-17th 2018, Poreč



<http://kristalografija.hazu.hr/>



The **31st European Crystallographic Meeting**, ECM31, will take place in the Palace of Exhibition and Congresses (PEC) in Oviedo, Spain, from 22-27 August 2018.

ECM31 is setting up an attractive programme covering the latest advances in crystallography and related sciences to attract young and senior scientists as well as companies and general public.

One extensive agenda for accompanying people will be offered, with special attention to babies and children, with a specific programme of baby-care and children activities during the conference. Asturias, and the city of Oviedo in particular, is a cultural, active and organized region of open minded, hospitable and altruist citizens. Asturias may be easily reached by air, train or car.

The PEC has a spectacular urban design and offers a modern, functional and versatile infrastructure with all facilities. For all these reasons, ECM31 will be an effervescent and fruitful scientific, social and commercial meeting with many learning opportunities in every current aspect of crystallography.

<http://ecm31.ecanews.org>



<http://ecm31.ecanews.org/en/>

2018

August
29th - 31st

Les Diablerets



Swiss Workshop on Materials with Novel Electronic Properties

Basic research and applications

Workshop topics

- Quantum and mesoscopic magnetism
- Superconductivity, materials and mechanisms
- Oxide interface physics
- Ferroic & multiferroic materials
- 2D van der Waals materials
- Topological phases of matter
- Cold atoms
- Surfaces and interfaces
- Novel probes
- Applications

Program committee

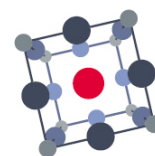
Chair : Felix Baumberger UNIGE, Dmitry Abanin UNIGE, Christian Bernhard UNIFR, Johan Chang UNIZH, Thierry Giamarchi UNIGE, Marta Gibert UNIZH, Dirk Grundler EPFL, Martin Kroner ETHZ, Patrick Maletinsky UNIBAS, Marisa Medarde PSI, Alberto Morpurgo UNIGE, Markus Müller PSI, Titus Neupert UNIZH, Nick Plumb PSI, Christoph Renner UNIGE, Henrik Ronnow EPFL, Urs Staub PSI, Philipp Werner UNIFR, Jonathan White PSI

Organizing committee, contact address

Alberto Morpurgo, Felix Baumberger, Adriana Bonito Aleman, Pierre Bouillot, Pascal Cugni, Ivan Maggio-Aprile, Greg Manfrini, Christophe Schwarz, Natacha Triscone
24 Quai Ernest-Ansermet, CH-1211 Genève 4
Phone : +41 22 379 65 78 - E-mail : swm@manep.ch

The deadline for registration and abstract submission is :

May 11th 2018
swm18.manep.ch



MaNEP
SWITZERLAND
NETWORK

Invited speakers

Leon Balents

KITP UC Santa Barbara

Kamran Behnia

ESPCI Paris

Eva Benckiser

MPA Stuttgart

Manuel Bibes

CNRS/Thales Paris

Andrea Cavalleri

MPI Hamburg

David Cobden

University of Washington Seattle

Josep Fontcuberta

ICMAB Barcelona

Vincent Jacques

University of Montpellier & CNRS

Thomas Jungwirth

Czech Academy of Sciences Prague

Philipp Moll

MPI Dresden

Virginie Simonet

Institut Néel, CNRS Grenoble

Bernhard Urbaszek

CNRS INSA Toulouse

Dedicated to Iwan N. Stranski



16-20 September 2018

SIXTH

EUROPEAN CONFERENCE

ON

CRYSTAL GROWTH

www.eccg6.eu

Venue and Accommodation:
Riviera Holiday Club, Varna, Bulgaria



Varna, Bulgaria, September 16-20, 2018

<http://escg2.eu/>

Calls for proposals

Beside normal proposals, most facilities allow urgent beam time requests. Please check directly with the facility.

Facility	Deadline(s)	Link
SLS: Swiss Light Source All except PX lines Protein crystallography beamlines (PX)	08.03. and 15.09. 15.04. and 15.10.	www.psi.ch/useroffice/
SINQ: Swiss Spallation Neutron Source All instruments (regular calls)	20.02.2018 (no beam in 2019 due to guide upgrade)	www.psi.ch/useroffice/
SINQ/SLS Joint x+n proposals (MS/HRPT)	15.02.2018	www.psi.ch/useroffice/
SpS: Swiss Muon Source All instruments	31.12. and 10.06.	www.psi.ch/useroffice/
ESRF: European Synchrotron long term proposals short term proposals	15. 01. 01.03. and 10.09.	www.esrf.eu/ UsersAndScience/
ILL: Institut Laue Langevin All instruments	14. 02. 2018	www.ill.eu/
FRM II: Heinz Maier-Leibnitz All instruments Rapid access program	23.02.2018 13.04.2018	www.mlz-garching.de/user- office/ www.mlz-garching.de/user- office/
SNS Spallation Neutron Source Oak Ridge	21.02.2018	neutrons.ornl.gov

Calendar of forthcoming meetings

(Please mail the missing information on meetings of interest to woerle@inorg.chem.ethz.ch)

Application Deadline

2018

Sept. 12	PSI Würenlingen	Annual meeting of the SGK / SSCr	07.09.2018
Aug. 21-29	Oviedo, Spain	31 th Meeting of the European Crystallographic Association http://ecm31.ecanews.org/en/index.php	20.07.2018
June 1-10	Erice, Italy	Erice International School on Quantum Crystallography	30.09.2017
July 1-4	Edinburgh, UK	16 th European Powder Diffraction Conference	To be announced

2019

Aug.	Vienna, Austria	32 th Meeting of the European Crystallographic Association http://ecm32.ecanews.org/	to be announced
April, 25	Bern	Symposium on the occasion of the „Chemical Landmark 2019“	To be announced

Institutional members and supporting institutions

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Supporting institutions



Swiss Academy of Sciences
Akademie der Naturwissenschaften
Accademia di scienze naturali
Académie des sciences naturelles



(If you would like to see your logo here, please contact our treasurer, Dr. Antonia Neels)

Become a member of SGK/SSCr

If you are working in the field of crystallography, you might be interested in becoming a member of our society. For more information as well as online registration, please go to our website (<http://www.sgk-sscr.ch>).

Presently, the yearly membership fee is CHF 40 (CHF 10 for students).



SGK/SSCr is a member of the Swiss Academy of Science.



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Società Svizzera di Cristallografia
Societad Svizera per Cristallografia

Members of the Board of the Society for the period 2015 – 2017

President	Prof. Dr. Piero Macchi Department of Chemistry & Biochemistry University of Berne Freiestrasse 3, CH-3012 Bern +41 31 631 4361, piero.macchi@dcb.unibe.ch
Vice-President, Treasurer	Prof. Dr. Antonia Neels Center for X-ray Analytics EMPA Überlandstrasse 129, CH-8600 Dübendorf +41 58 765 4507, antonia.neels@empa.ch
Secretary	Dr. Michael Wörle Small Molecule Crystallography Center ETH Zürich Vladimir-Prelog-Weg 1, CH-8093 Zürich +41 44 632 5684, woerle@inorg.chem.ethz.ch
Webmanager	Dr. Céline Besnard Laboratoire de Cristallographie Université de Genève 24, Quai Ernest Ansermet, CH-1211 Genève 4 +41 22 379 62 02, celine.besnard@unige.ch
Other members	Dr. Enrico Giannini Department of Quantum Matter Physics Université de Genève 24, Quai Ernest Ansermet, CH-1211 Genève 4 +41 22 379 6076, Enrico.Giannini@unige.ch Prof. Dr. Anthony Linden Department of Chemistry A University of Zürich Winterthurerstrasse 190, CH-8057 Zurich +41 44 635 4228, anthony.linden@chem.uzh.ch Dr. Olha Serada XRD Application LAB CSEM Jaquet Droz 1 / CP 526, CH-2002 Neuchâtel +41 32 720 5437/5551 olha.sereda@csem.ch Dr. Antonio Cervellino Material Science Group Paul Scherrer Institute WLGA/229, CH-5232 Villigen PSI +41 56 310 4611 antonio.cervellino@psi.ch
Auditors:	B. Spingler (University of Zürich), K. Schenk (EPF Lausanne)

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Editor:
Dr. Michael Wörle
ETH Zürich
HCI H103
Vladimir-Prelog-Weg 1
CH-8093 Zürich, Switzerland

e-mail: woerle@inorg.chem.ethz.ch

www.sgk-sscr.ch

SGK/SSCr, CH-1700 Fribourg

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The newsletter of SGK/SSCr is published 2-4 times a year in a circulation of 250. Contributions are welcome at any time, as well as illustrations for the cover. Articles in English, German or French may be submitted. Please send all interesting material directly to the editor.

Commercial advertisements of material of interest to members of the SGK/SSCr are welcome. Please contact the treasurer for details of the advertising rates.