

# 30<sup>th</sup> Meeting of the European Crystallographic Association 28 August – 1 September 2016 Congress Center Basel, Switzerland

# COME TO BASEL

**ABSTRACT SUBMISSION  
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## 50 MICROSYMPOSIA

in 5-6 parallel sessions of **Biology • Chemistry • Materials • Mineralogy • Physics**

### Focus Area 1 (SIG 1)

- SAXS in structural biology
- Development of new types of sample preparation
- Data collection and processing software
- New developments in phasing and refinement
- Structural information in drug design
- Molecular machines and big complexes
- Protein & glycobiology structure determination
- Membranes and membrane interacting proteins
- Enzyme reactions and dynamics in crystals
- H-bonding & weak interactions in crystals
- Hybrid approaches and validation
- Biophysical characterization and crystallization
- Hot structures in biology

### Focus Area 2 (SIG 5, 11, 12)

- Biomineralogical crystallography & bioinspired inorganic materials
- Minerals and materials
- Structure-property relationships in high pressure crystallography
- Crystal chemistry of C-bearing materials & minerals at extreme conditions
- Structural studies of meteoritic, extra-terrestrial, & planetary materials
- Solid state oxygen fuel cell, hydrogen storage & battery materials
- Materials for energy conversion and harvesting
- Structural disorder & materials' properties at ambient & non-ambient conditions

### Focus Area 3 (SIG 2, 3, 4)

- Beyond multipolar refinement
- Charge and spin density of materials at extreme conditions
- Inorganic and metal-organic magnetic structures
- Quasicrystal and approximant: structure and properties
- Incommensurate modulated and composite phases
- Dynamical refinement of electron diffraction data
- New approaches in electron crystallography

### Focus Area 4 (SIG 7, 13)

- Molecular interactions in crystal packing and molecular assemblies
- Hydrogen bonding from theory to applications
- Crystal energy landscapes: computation and uses
- Polymorphs, cocrystals, solvates, salts: a jungle for scientists & industries
- Hot structures of small molecules
- Molecular recognition, supramolecular chemistry & crystal engineering
- Simulation of dynamics in molecular compounds
- Crystallography in solid state reactions and catalysis
- Molecular compounds & MOFs at ambient conditions & under high pressure
- Nanomaterials & graphene

### Focus Area 5 (SIG 6, 8, 9)

- X-Ray diffraction on the  $\mu$ s to ps time scale
- New detectors for high energy x-ray applications
- The use of X-ray, electron and neutron scattering in nanoscience
- Advances in neutron scattering under non-ambient conditions
- Combining x-ray diffraction and other techniques for *in situ* and *in operando* studies
- Total scattering: pdf analysis & diffuse scattering
- Measuring data quality
- Computational tools for theoretical chemistry in crystallography

### General Microsymposia

- Contributions to and of crystallography
- Teaching & education: LinkedIn, Google scholar, etc.
- Crystallography in art and cultural heritage
- How to...: crystallization for small and large molecules
- History of ECA, history of crystallography

### Plenary Speakers



Ada Yonath



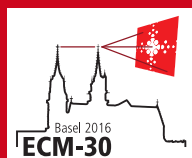
Jean-Marie Lehn

### Keynote Speakers

Jan Pieter Abraham, Basel University, Switzerland  
Bob Cernik, University of Manchester, UK  
Birger Dittrich, Georg-August-University Göttingen, Germany  
Robert von Dreele, Argonne National Laboratory, USA  
Francesca Fabbiani, Göttingen, Germany  
Petra Fromme, Arizona State University, USA  
Makoto Fujita, University of Tokyo, Japan  
Sandra W. Jacob, Novartis Pharma AG, Basel, Switzerland  
Sven Lidin, Lund University, Sweden  
Marcus Neumann, Avant-garde Materials Simulation, Freiburg, Germany  
Gabor Oszlanyi, Academy of Sciences, Budapest, Hungary  
Simon Parsons, University of Edinburgh, UK  
Werner Paulus, Montpellier, France  
Martin U. Schmidt, University of Frankfurt, Germany  
Peter Schurtenberger, Lund University, Sweden  
Olivier Thomas, Aix-Marseille University, France

Responsibles Focus Areas 1–5:

Michael Hennig (Basel), Piero Macchi (Bern), Jürg Schefer (PSI),  
Katharina M. Fromm (Fribourg), Radovan Cerny (Geneva)



<http://ecm30.ecanews.org/ecm2016/home.html>

