2nd International Conference on

Applied Crystallography

October 16-17, 2017 | Chicago, USA
08:00-08:50 Registrations

ZURICH

08:50-09:10 Opening Ceremony

Keynote Forum

09:10-09:20 Introduction
09:20-09:50 Title: Crystal nucleation and growth in undercooled melts of metals and alloys
   Dieter Herlach, German Aerospace Centre, Germany
09:50-10:20 Title: Synthesis of 2D flatlands beyond graphene
   Eui-Hyeok Yang, Stevens Institute of Technology, USA

Panel Discussion

Networking & Refreshment Break 10:20-10:40 @ Athens

10:40-11:10 Title: X-ray diffraction reveals the mechanical load tolerance of mammalian nerve, muscle and tendon in traumatically induced injury and the vertebrate identity of fossilized T-REX bone
   Joseph Orgel, Illinois Institute of Technology, USA
11:10-11:40 Title: Structure, design and function of pyro electric crystals
   Meir Lahav, Weizmann Institute of Science, Israel

Session 1:
Advanced Crystallography | Crystallography in Biology | Chemical Crystallography | Crystal Growth
Session Chair: J. Rouquette, Université Montpellier, France

Session Introduction

11:40-12:00 Title: Non-destructive studies of microstructure and elemental composition of crystalline materials through energy-resolved neutron imaging
   Anton S. Tremsin, University of California at Berkeley, USA
12:00-12:20 Title: Crystal structures of polymers: Will PDF paves the way to greater understanding?
   Bernd Hinrichsen, BASF SE, Germany
12:20-12:40 Title: Observation of π electron in metal hexaboride through X-ray charge density
   Eiji Nishibori, University of Tsukuba, Japan
12:40-13:00 Title: Atomic view of the histidine environment stabilizing higher-pH conformations of pH-dependent proteins
   Franck Artzner, Rennes University, France

Panel Discussion

Lunch Break 13:00-13:50 @ Athens

13:50-14:10 Title: On the application of molecular simulation tools in studies of organic molecular crystals. (i.e. Modelling disorder and other crystalline properties)
   Eric J Chan, Bristol Myers Squibb, USA
14:10-14:30 Title: Understanding interface and surface structures of Nano- phases in natural changes
   Fuyuki Ito, Shinshu University, Japan
14:30-14:50 Title: Fe-oxyhydroxide and Fe-bearing olivine minerals
   Huifang Xu, University of Wisconsin–Madison, USA
14:50-15:10 Title: Interplay between H-bonding and charge ordering in Fe₃(PO₄)₂(OH)₂ barbosalite.
   J. Rouquette, Université Montpellier, France
Title: Applications of crystallography data in force-field and density functional theory calculations: JARVIS database.
Kamal Choudhary, NIST, USA

Title: Structural study of sulfide glassy electrolytes for all-solid-state batteries.
Koji Ohara, JASRI/SPring-8, Japan

Panel Discussion
Networking & Refreshment Break 15:55-16:10 @ Athens

Session 2:
Advanced Crystallography | Crystallography in Biology | Chemical Crystallography | Crystal Growth
Session Chair: Rama S Madhurapantula, Illinois Institute of Technology, USA

Session Introduction

16:10-16:30 Title: Designing chiral metal-organic assemblies
Michal Lahav, Weizmann Institute of Science, Israel

16:30-16:50 Title: Old forces to create new materials
Milko E. van der Boom, Weizmann Institute of Science, Israel

16:50-17:10 Title: Nonlinear crystallography with structured light: Classical and quantum optics effects
Rocio Jauregui, National Autonomous University of Mexico, Mexico

17:10-17:30 Title: Fabrication of single crystal silicon nanowires by metal assisted chemical etching with Nano imprinted barrier pattern
Seok-min Kim, Chung-Ang University, Republic of Korea

17:30-17:50 Title: ‘Crystal genes’ in metallic liquids and glasses
Feng Zhang, Ames Laboratory US Department of Energy, USA

17:50-18:00 Title: Structural and functional studies of actin interacting protein 5, a novel actin assembly regulator in Saccharomyces cerevisiae
Sun Jialin, Nanyang Technological University, Singapore

Panel Discussion
Session Adjournment

Day 2 October 17, 2017
ZURICH

Keynote Forum

09:00-09:10 Introduction

09:10-09:40 Title: Static and dynamic atomic disorder in nanocrystalline systems
Paolo Scardi, University of Trento, Italy

09:40-10:10 Title: Hydrogen diffusion in nickel single- and poly-crystals: The effects of self-stress
Xavier Feaugas, University of La Rochelle, France

10:10-10:40 Title: Disentangle phonon modes using ultrafast electron diffraction and timely-resolved electron crystallography
Yimei Zhu, Brookhaven National Laboratory, USA

Panel Discussion
Networking & Refreshment Break 10:40-11:00 @ Athens

Session 1:
Crystallography of Novel Materials | Electron Crystallography | Recent development in the X-ray studies | Crystallography Applications
Session Chair: Stephan Rosenkranz, Argonne National Laboratory, USA

11:00-11:20 Title: The difference in the P- and T-induced dynamics in breathing crystals
Victor Ovcharenko, International Tomography Center, Russia
11:20-11:40 Title: Structure of viruses from experimental data from an x-ray free electron laser
DK. Saldin, Department of Physics, University of Wisconsin-Milwaukee, USA

11:40-12:00 Title: Structural changes in Type I collagen from non-enzymatic glycation revealed by isomorphous X-ray diffraction
Rama. S Madhurapantula, Illinois Institute of Technology, USA

12:00-12:20 Title: Non-covalent interactions that control the self-assembly of organic molecular crystals
M. Sithambaresan, Eastern University, Sri Lanka

12:20-12:40 Title: Three parameter crystal-structure prediction for sp-d valent compounds
Thomas Hammerschmidt, Ruhr University Bochum, Germany

12:40-13:00 Title: Novel magnetism and local symmetry breaking in a Mott insulator with strong spin orbit interactions
Vesna F Mitrovic, Brown University, USA

Panel Discussion

Session 2:
Crystallography of Novel Materials | Electron Crystallography | Recent development in the X-ray studies | Crystallography Applications
Session Chair: Vijeesh P, The Cochin College, India

14:00-14:20 Title: Growth and growth rate analysis of potassium succinate –crystal
Vijeesh P, The Cochin College, India

14:20-14:40 Title: Structural insights into crenezumab’s mechanism of action
Weiru Wang, Genentech, USA

14:40-15:00 Title: Light-induced crawling motion of azobenzene crystals on a glass surface
Yasuo Norikane, NIAIST, Japan

15:00-15:20 Title: Hydration and ion adsorption at yttria-stabilized zirconia (YSZ) – water interface
Changyong Park, Carnegie Institution for Science, USA

15:20-15:40 Title: Recent developments in single crystal diffuse scattering: Imaging nanoscale disorder in reciprocal space
Stephan Rosenkranz, Argonne National Laboratory, USA

Panel Discussion

Networking & Refreshment Break 15:40-16:00 @ Athens

16:00-16:20 Title: Structural response to pressure in 1111-type iron-based superconductor LaFeAsO\textsubscript{1-x}H\textsubscript{x}
Kensuke Kobayashi, High Energy Accelerator Research Organization (KEK), Japan

16:20-16:40 Title: Role of crystal structure stability for energy storage applications
Awalendra Kumar Thakur, Indian Institute of Technology Patna, India

16:40-17:00 Title: Landyne, a software suite for electron diffraction simulation and crystallographic analysis
Xing-Zhong Li, University of Nebraska, USA

17:00-17:20 Title: Double bragg scattering from highly oriented pyrolytic graphite in small-angle X-ray scattering region
Yoshinori Ohmasa, Kansai University, Japan

17:20-17:40 Title: How does crystallography affect material properties?
Serife Yalcin, Harran University, Turkey

Panel Discussion

Award Ceremony

Thanks Giving & Closing Ceremony