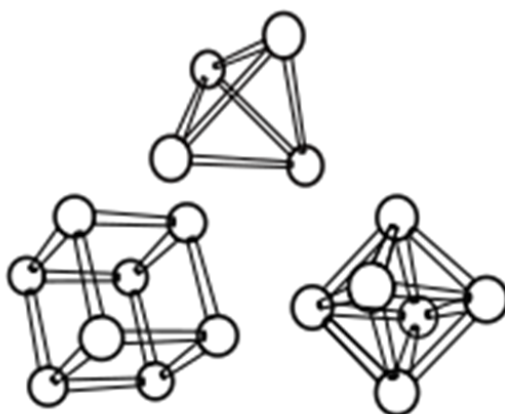


**Croatian Crystallographic Association**

**Slovenian Crystallographic Society**

# **Thirty-Second Croatian–Slovenian Crystallographic Meeting**

Programme Book



Vodice, Croatia  
17–21 June 2026

# PROGRAMME

## WEDNESDAY, June 17, 2026

**18:30 – 19:00 REGISTRATION OF PARTICIPANTS**

**19:00 – 19:30 WELCOME RECEPTION**

## THURSDAY, June 18, 2026

**08:00 – 08:45 REGISTRATION OF PARTICIPANTS**

**08:45 – 09:00 OPENING CEREMONY**

*Chairpersons: A. Meden, M. Đaković*

**09:00 – 10:00 PLENARY LECTURE**

**Marta Počkaj**

*Exploring 3D electron diffraction: first experiences and lessons learned*

*Chairperson: A. Meden*

**10:00 – 10:30 COFFEE BREAK**

**10:30 – 11:40 SHORT PRESENTATIONS**

*Block A — Structural methods and crystal-structure determination*

*Chairpersons: M. Razum, M. Dragomir*

**10:30 – 10:40 Anton Meden**

*Crystal structure of  $\text{Bi}_4\text{Ti}_3\text{O}_{12}$  nanowires determined by 3D electron diffraction*

**10:40 – 10:45 Andreas Ertl**

*Correlations between site-occupations and temperature in synthetic tourmaline: caused by the crystal structure?*

**10:45 – 10:50 Andreas Ertl**

*Development of a new geothermometer using zoned tourmaline*

**10:50 – 11:00 Goran Štefanić**

*X-ray diffraction analysis of platinum-modified hematite nanowires*

**11:00 – 11:10 Nina Podjed Rihtaršič**

*Copper(II) complexes with deprotonated furosemide: X-ray evidence of novel coordination modes*

**11:10 – 11:20 Matjaž Kristl**

*Crystal structures of copper(II) complexes with halogenated pyridines*

**11:20 – 11:30 Matic Lozinšek**

*Coordination of  $\text{XeF}_2$  to the  $\text{BrF}_2^+$  Cation*

**11:30 – 11:40 Emilia Buchsteiner**

*Variable temperature diffraction and polymorph screening with the XtaLAB Synergy-ED*

**11:40 – 12:00 BREAK**

**12:00 – 13:20 SHORT PRESENTATIONS**

*Block B — Crystal dynamics, functional materials and coordination chemistry*

*Chairpersons: M. Lozinšek, S. Burazer*

**12:00 – 12:15 Željko Skoko**

*Tailoring thermosalient phase transitions by molecular alloying*

**12:15 – 12:25 Mateja Pisačić**

*Heat it, push it, watch it move: structural origins of crystal dynamics*

**12:25 – 12:35 Božena Tokić**

*Dynamic responses of cadmium(II) coordination polymer crystal to mechanical and thermal stimuli*

**12:35 – 12:45 Katarina Lucija Lakota**

*Ruthenium(II) complexes with novel pyridithione ligands*

12:45 – 12:55

**Marta Razum**

*Tuning polaronic pathways in vanadate-phosphate glasses by mixed transition metal oxide substitution*

12:55 – 13:05

**Uroš Rapuš**

*Organoruthenium(II) complexes with pyridithione and ligands containing group V donor atoms*

13:05 – 13:20

**Dora Balen**

*Linking synthesis to crystal structure in LaCoO<sub>3</sub>: a detailed crystallographic investigation*

**13:20 – 15:00 LUNCH BREAK**

**15:00 – 16:00 PLENARY LECTURE**

**Jan Dohnálek**

*How Far Do We Understand Protein–Nucleic Acids Interactions? Nucleases at Atomic Resolution*

*Chairperson: D. Matković-Čalogović*

**16:00 – 16:30 COFFEE BREAK**

**16:30 – 18:30 CCDC WORKSHOP**

**Matthew Lightfoot**

*From Crystal Structures to Solid Forms – Exploring CSD Tools for Interactions, Morphology and Particle Properties*

## FRIDAY, June 19, 2026

**08:00 – 09:00 REGISTRATION OF PARTICIPANTS**

**09:00 – 10:00 PLENARY LECTURE**

**Sarah Guerin**

*Accelerating organic molecular crystals as sustainable piezoelectric energy harvesters*

*Chairperson: M. Đaković*

**10:00 – 10:30 COFFEE BREAK**

**10:30 – 11:45 SHORT PRESENTATIONS**

*Block C — Halogen bonding, crystal engineering and applied crystallography*

*Chairpersons: J. Jakoš, T. Klaser*

10:30 – 10:45

**Dominik Cinčić**

*Metal-organic halogen-bonded cocrystals based on the robust I<sup>⋯</sup>SCN synthon*

10:45 – 10:55

**Vinko Nemec**

*Halogen-bonded cocrystals of M(NCS)<sub>2</sub>(3-Xpy)<sub>4</sub> coordination compounds (M = Co, Ni, Fe, Mn; X = Cl, Br, I)*

10:55 – 11:05

**Mladen Borovina**

*Comparison of chloride and isothiocyanate ligands (X) as halogen bond acceptors in cocrystals based on [Co(X)<sub>2</sub>(2-acetylpyridine)<sub>2</sub>] complexes*

11:05 – 11:15

**Lidija Posavec**

*Tetrakis(4-pyridyl)porphyrin as a building block in halogen-bonded cocrystals*

11:15 – 11:30

**Sanja Burazer**

*Operando XRD study of practical battery configurations with the DANOISE Cell*

11:30 – 11:45

**Mirela Dragomir**

*Mechanochemistry as a Route to Novel Silver(II) Compounds*

**11:45 – 12:00 BREAK**

## 12:00 – 13:15 SHORT PRESENTATIONS

*Block D — Coordination chemistry and solid-state structural chemistry: complexes, MOFs and intermetallic compounds*

Chairpersons: M. Kristl, I. Đilović

- 12:00 – 12:10 **Nikola Jakupec**  
*Investigation of an  $O\cdots\pi$  'lamp motif' in 2,3-dichloro-5,6-dicyanobenzoquinone modified in highly acidic media*
- 12:10 – 12:20 **Jakob Kljun**  
*Synthesis and structure of new chelating mercaptoprimidines*
- 12:20 – 12:30 **Jure Jakoš**  
*Modifying and coordinating caerulomycin A*
- 12:30 – 12:40 **Sabi William Konsago**  
*Caerulomycin K inspired chelating pyridine oximes*
- 12:40 – 12:55 **Marin Liović**  
*Drug solubility modification: indomethacin salts/cocrystals with isonicotinamide and imidazole*
- 12:55 – 13:05 **Bohdan Kotur**  
*Crystal structure of the ternary gallide  $Zr_{10}Ru_5Ga$*
- 13:05 – 13:15 **Darko Vušak**  
*Expanding the Structural Diversity of 3,3'-Bipyridine to Dual-Ligand Metal–Organic Frameworks*

## 13:15 – 15:00 LUNCH BREAK

## 15:00 – 19:00 CONFERENCE TRIP

## 19:30 CONFERENCE DINNER

## SATURDAY, June 20, 2026

## 09:00 – 10:00 PLENARY LECTURE

**Emil S. Božin**

*Femtosecond access to hidden nanoscale non-equilibrium states in quantum materials*

Chairperson: Ž. Skoko

## 10:00 – 10:30 COFFEE BREAK

## 10:30 – 11:40 SHORT PRESENTATIONS

*Block E — Coordination chemistry: transition-metal complexes I*

Chairpersons: L. Čolakić, E. Goreshnik

- 10:30 – 10:50 **Krešimir Molčanov**  
*Salts of tetracyanoquinodimethane (TCNQ) radical anion with low partial charges of  $-1/3$  and  $-2/5$*
- 10:50 – 11:05 **Yurii Slyvka**  
*Allyl-substituted pyridines as powerful tools for the construction of novel copper  $\pi,\sigma$ -coordination compounds*
- 11:05 – 11:15 **Andrii Hultiaiev**  
*The novel DABCO-chlorocuprate(I) coordination compounds*
- 11:15 – 11:25 **Ivica Đilović**  
*The first structure of a discrete cis-bis(L-prolinato)copper(II) in co-crystals with urea and water. The influence of crystallization conditions on the occurrence of urea cocrystals*
- 11:25 – 11:40 **Igor Picsek**  
*Supramolecular Pyridinium Oxime–Ferrocyanide Complexes: Structurally Driven Chromic Response*

**11:40 – 12:00 BREAK**

**12:00 – 12:55 SHORT PRESENTATIONS**

*Block F — Macromolecular crystallography, bioactive compounds and supramolecular chemistry*

*Chairpersons: M. Potočnik, L. Pavić*

12:00 – 12:15 **Mirjana Radanović**

*Comparative structural analysis of a series of halogenated thiocarbohydrazone derivatives*

12:15 – 12:35 **Ivana Kekez**

*Engineering metagenomic esterases: from ancestral reconstruction to crystal structure*

12:35– 12:45 **Khalida Khalil**

*Supramolecular macrocycles for water purification: structural and computational studies of inclusion complexes*

12:45– 12:55 **Rehana Bano**

*Crystal structure and intermolecular interaction analysis of imidazolium-based molecular salts*

**12:55 – 15:00 LUNCH BREAK**

**15:00 – 16:00 PLENARY LECTURE**

**Vladimir Stilinović**

*Halogen bond – a not so non-covalent interaction*

*Chairperson: K. Molčanov*

**16:00 – 16:30 COFFEE BREAK**

**16:30 – 17:45 SHORT PRESENTATIONS**

*Block G — Structural analysis of materials: modulation, mechanochemistry and characterization*

*Chairpersons: I. Kekez, S. W. Konsago*

16:30 – 16:40 **Clivia Hejny**

*From mystery to modulation: the structural story of  $Rb_2[Si_2O_5]$*

16:40 – 16:50 **Aleksandra Šaponjić**

*Production of durable mullite-based ceramics from diatomite*

16:50 – 17:00 **Martina Potočnik**

*Thermal behaviour of virgin and recycled polyethylene terephthalate analysed by differential scanning calorimetry*

17:00 – 17:10 **Fouad Alloun**

*Crystal structure and magnetic properties of the novel langbeinite-type phosphate  $Ba_2FeCo(PO_4)_3$*

17:10 – 17:25 **Lea Čolakić**

*Discovery of the intermediate crystalline phase in the mechanochemical synthesis of silver sulfadiazinate*

17:25 – 17:45 **Teodoro Klaser**

*Surface patch characterization and crystal orientation effects on the photoelectric properties of gold-coated surfaces*

**17:45 – 18:00 BREAK**

**18:00 – 18:50 SHORT PRESENTATIONS**

*Block H — Applied crystallography: inorganic materials and the solid state*

*Chairpersons: J. Kljun, I. Picek*

18:00 – 18:15 **Luka Pavić**

*From structure to transport: phosphate glasses containing transition metal-oxides*

18:15 – 18:30 **Sara Marijan**

*Catalytic behavior and dielectric properties of V-P-O-based glasses*

18:30 – 18:40

**Vesna Zalar Serjun**

*Valorisation of industrial combustion by-products as alternative binders for low-carbon construction*

18:40 – 18:50

**Evgeny Goresnik**

*New hydrazinium salts with bifluoride anion*

18:50 – 19:00

**Nives Kitanovski**

*From discrete complexes to coordination polymers in cobalt coordination chemistry*

**19:00**

**CLOSING REMARKS**

*Chairpersons: A. Meden, M. Đaković*

**SUNDAY, June 21, 2026**

**09:00 – 10:30 EVALUATION AND FAREWELL COFFEE**

**10:30 DEPARTURE**