









CORE FACILITY FOR CRYSTALLOGRAPHY AND BIOPHYSICS

## **Core Facility for Crystallography and Biophysics**

**TEAM-TECH Core Facility** project founded by FNP established in 2018 a Core Facility for Crystallography and Biophysics at the Biological and Chemical Research Centre, University of Warsaw



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Biological Macromolecules	Biological Macromolecules
MX-BIO	EM-BIO
Protein Expression and Purification	Sample Preparation
Ligand Binding Assays	Negative staining
Crystallization	Sample Screening
X-Ray Diffraction (in house)	Cryo-EM Data Collection
ynchrotron Data Collection (external)	Electron Diffraction



Crystal structure and polymorphic forms of auranofin

The bilayer ABAB architecture of the AF crystal, with a layer composed of the head-to-head positioned pyranose rings displayed as blue strips. Hydrogens atoms were removed for the sake of clarity. B. Molecules of AF coloured according to different symmetry codes. Intermolecular contacts are displayed as cyan lines. One molecule of AF is highlighted in black for better visibility.

M Ziemniak et al. (2025, submitted), RSC Advances



X-Ray lab diffractometer high pressure measurements for Ice VII allow for excellent quality diffraction data which reveals complex disorder of both H- and O- atoms not detected so far even by neutron diffraction. Work in press in IUCRJ.

**IRMOF structure** solved and refined based on Electron Diffraction measurements on Glacios Microspope vs X-ray Diffraction measurement on Cu SuperNova. Quality of the ED model for this MOF is almost as good as from XRD model. We express gratitude to Michał Chmielewski for providing the compound.



Electrostatic pairwise residue-ligand electrostatic energies mapped onto molecular surface of USP7 catalytic domain.

A red-white-blue gradient scheme is applied, where residues with highest stabilising contribution (negative energy sign) are coloured red while residues with highest destabilising contribution (positive Energy sign) are deep blue. A. Global map of showing pairwise interaction on the whole surface of USP7 in 6VN3 complex. Pairwise interactions in the binding cavity of 6VN3 (B) and 6M1K (C) complexes.

M Ziemniak et al. (2025, submitted), Org&Biomol Chem



## **SCIENCE SERVICES FOR ACADEMIC AND COMMERCIAL USERS**

The "Core facility for crystallographic and biophysical research to support the development of medicinal products" project is carried out within the TEAM-TECH Core Facility programme of the Foundation for Polish Science co-financed by the European Union under the European Regional Development Fund.

