

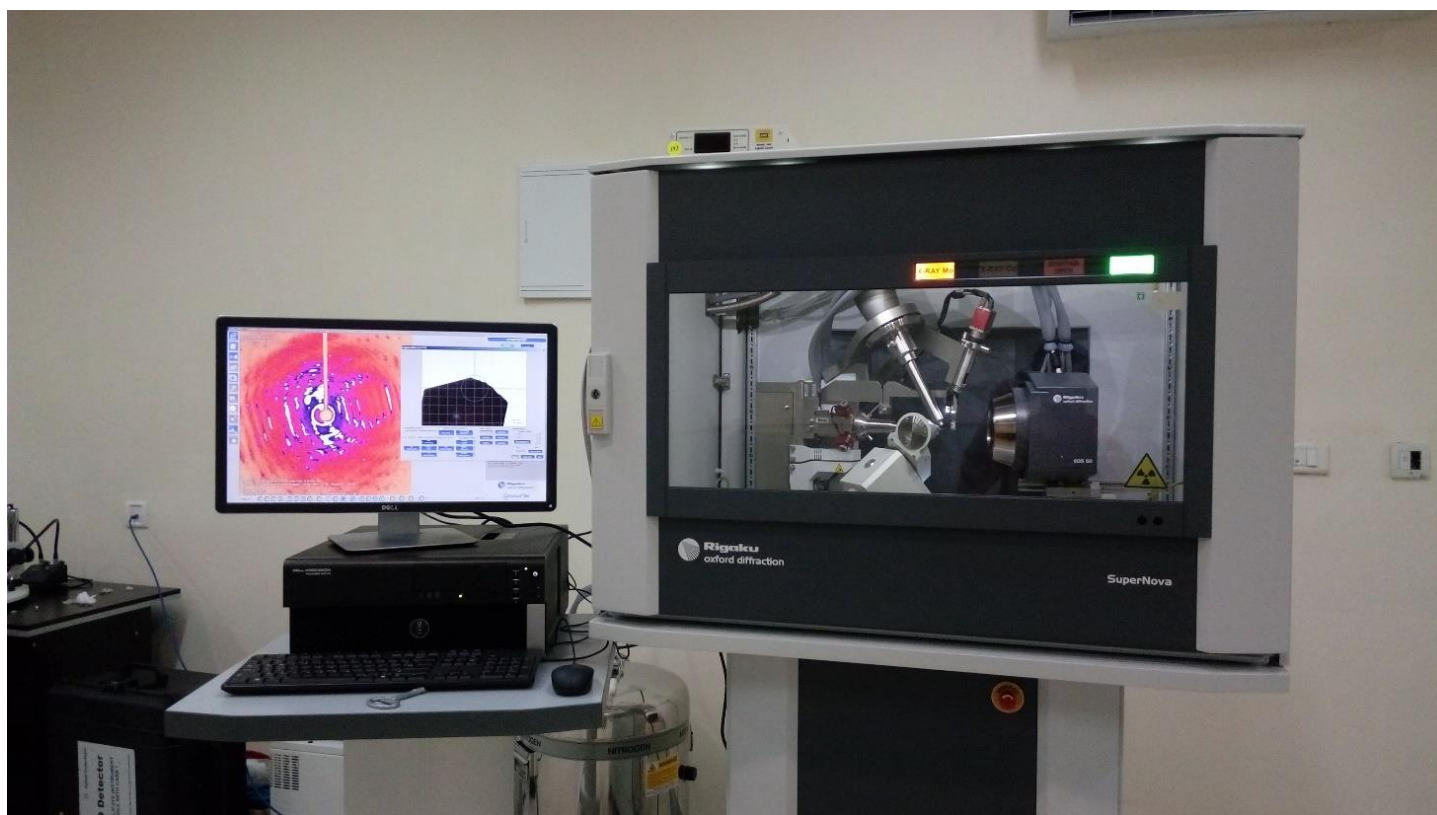


Central Research Facility

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SINGLE CRYSTAL X-RAY DIFFRACTOMETER (SC-XRD)

Single Crystal X-ray Diffraction Facility (SCXRD) at CRF is provided with a Rigaku Oxford Diffraction system equipped with state of art CCD Eos S2 detector. This is a non-destructive analytical technique. This is used to explore structure, bond lengths, bond angles of chemical compounds and details of site-ordering within the crystal.



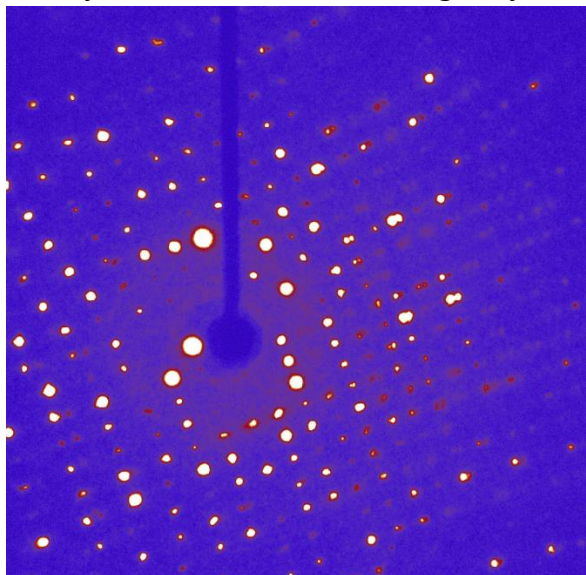
Single Crystal X-ray Diffraction Facility at CRF

Features of SCXRD:

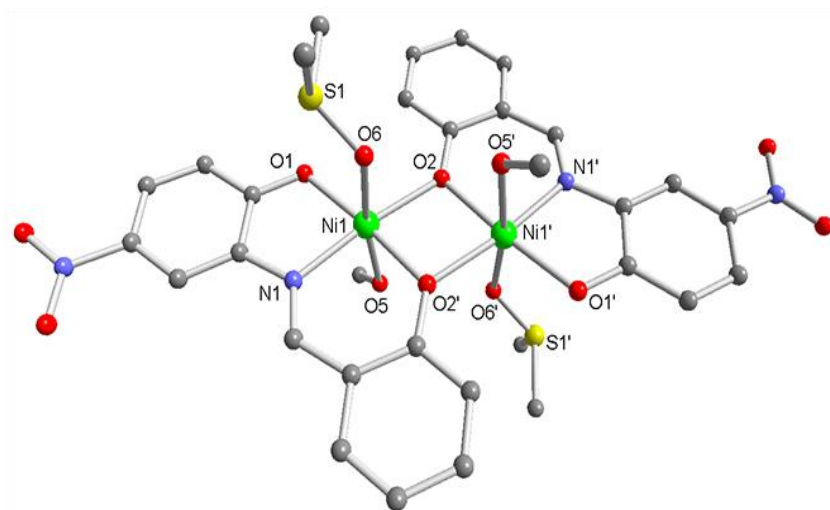
- Up to 50 W microfocus X-ray tube (Mo source) with multilayer optics.
- High precision 4-circle kappa goniometer.
- Measurement temperature: room temperature to 100 K.
- CrysAlis^{Pro}: Powerful user-friendly software for data collection and data reduction.
- AutoChem 3.0 for fully-automated structure solution and refinement.

Results:

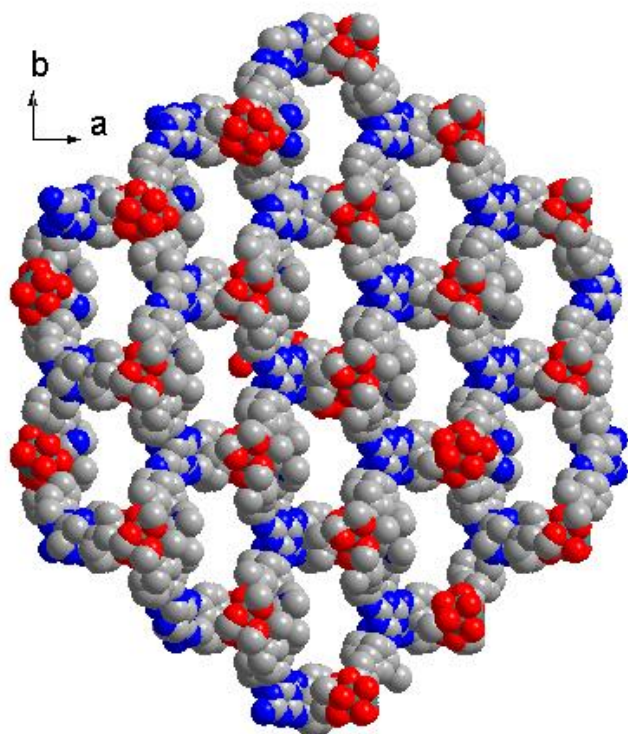
X-ray Diffraction Pattern of a Single Crystal



Molecular Structure of Chemical Compound



Three-dimensional Structure of Chemical Compound



Simulated Power XRD Pattern of Chemical Compound

