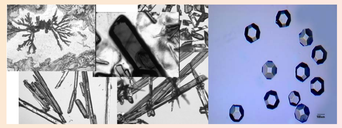
X-Ray Diffraction Facility at USF



University of South Florida, Department of Chemistry
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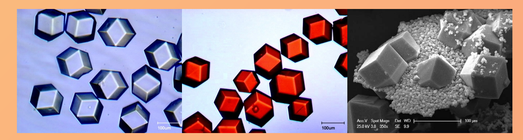
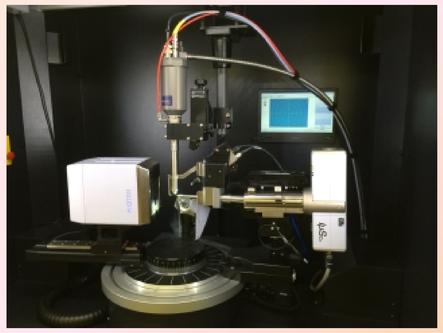
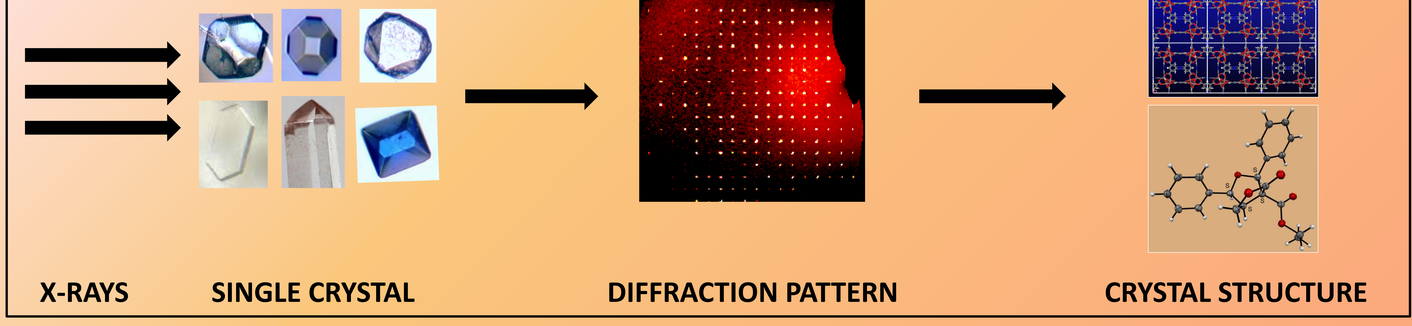
Director: **Lukasz Wojtas,** PhD; E-mail: **lwojtas@usf.edu**; Phone: **813-974-3451**

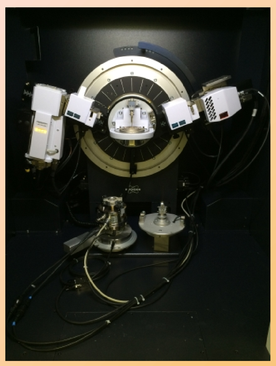




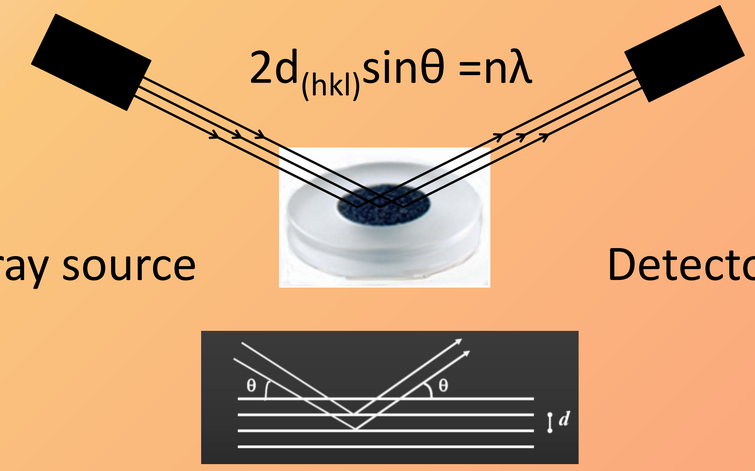
Bruker D8 Venture
Single Crystal X-ray Diffractometer

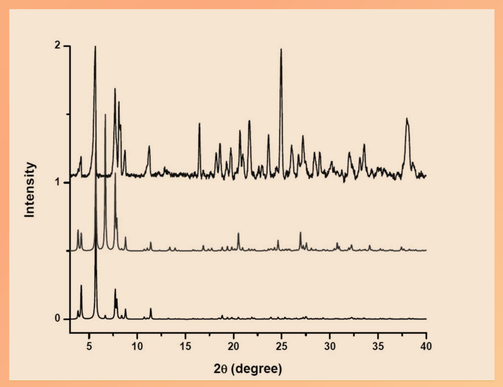


Unit cell determination
Crystal structure determination
Crystal structure analysis
Absolute configuration
Report for Publication



Bruker D8 Advance with DaVinci
Powder X-ray Diffractometer





Phase identification
ICDD-PDF2 Database
Quantitative analysis
Indexing
Structure solution

Bruker D8 Advance
Powder Diffractometer with DAVINCI design

- LYNXEYE high-speed detector
- Vertical goniometer in theta-theta configuration so sample stage always remains flat
- Twin-Twin primary and secondary optics for automatic changing from Bragg-Brentano to Parallel Beam geometry and back
- Rotational sample stage •Capillary stage
- TTK 450 non-ambient stage
- DIFFRAC.EVA measurement software
- DIFFRAC.TOPAS software for advanced data manipulation including Rietveld refinement and quantitative analysis

Bruker D8 VENTURE
Single Crystal Diffractometer

PHOTON 2 CPAD DETECTOR
Air cooled, 100-cm^2 active area
Cu-IμS Microfocus X-ray Source
Air cooled !!! Up to 300x more intensity!!!
Low Temperature Device (80-500K)
Application:
Microcrystallography