

EIGER2 R 500K

Not Your Typical Jack of All Trades

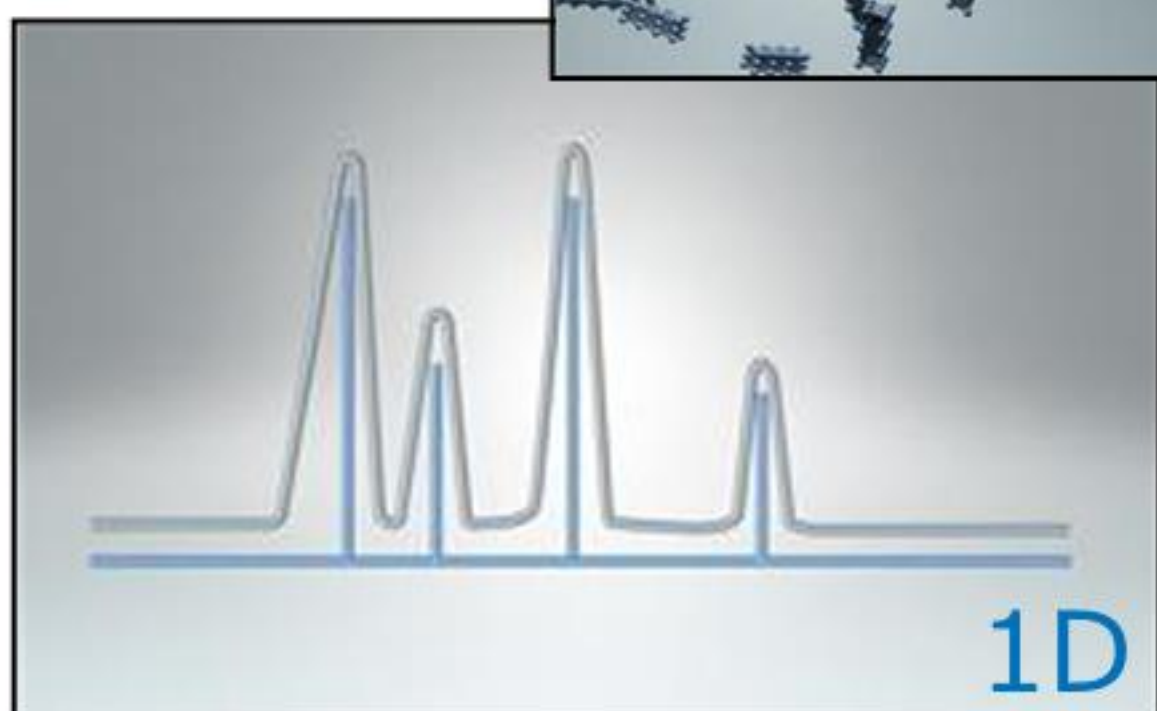
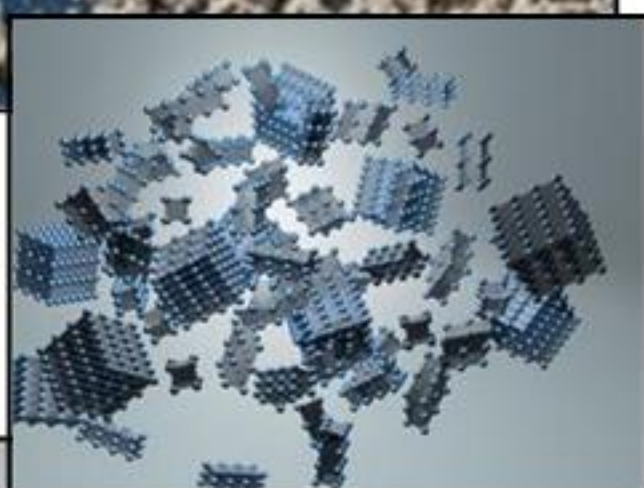
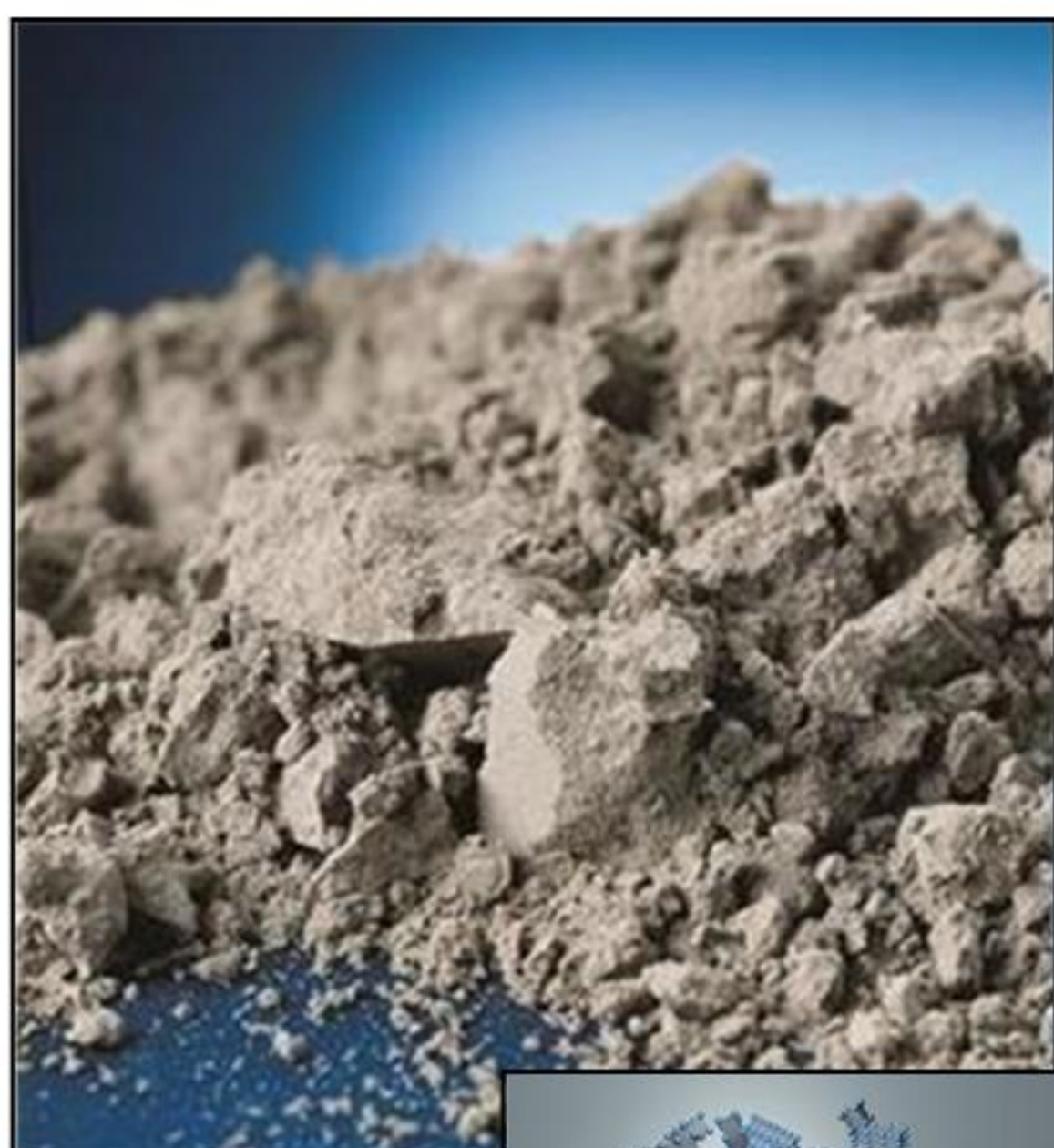


EIGER2 R 500K for D8 Family

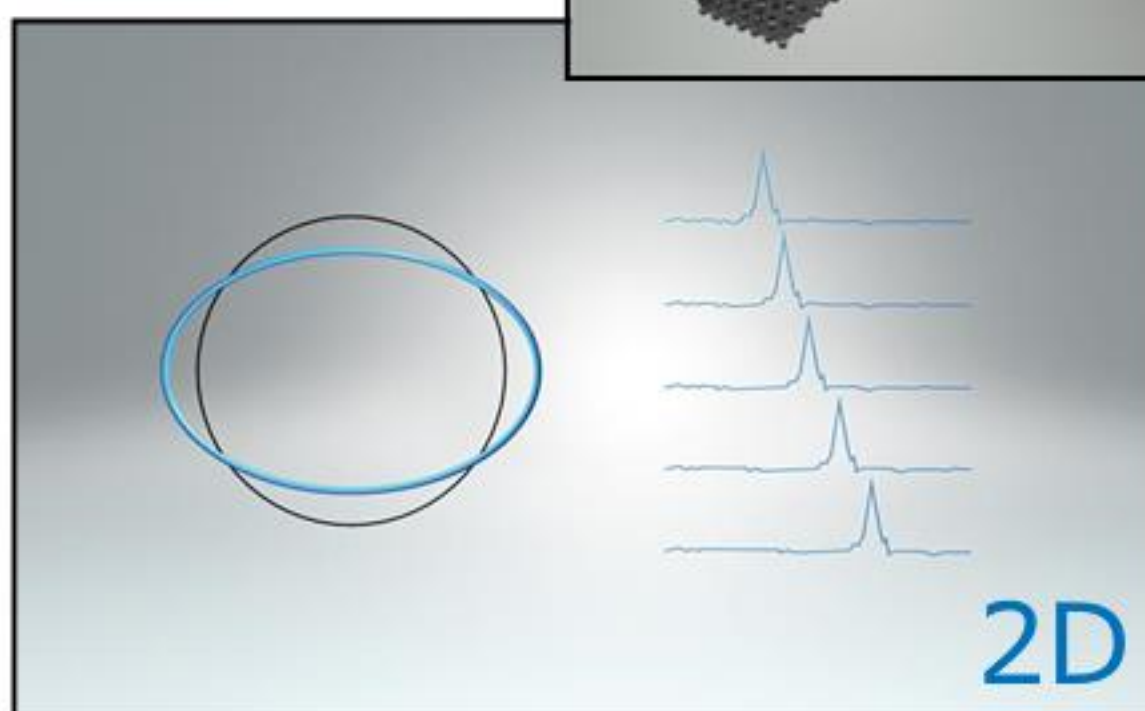
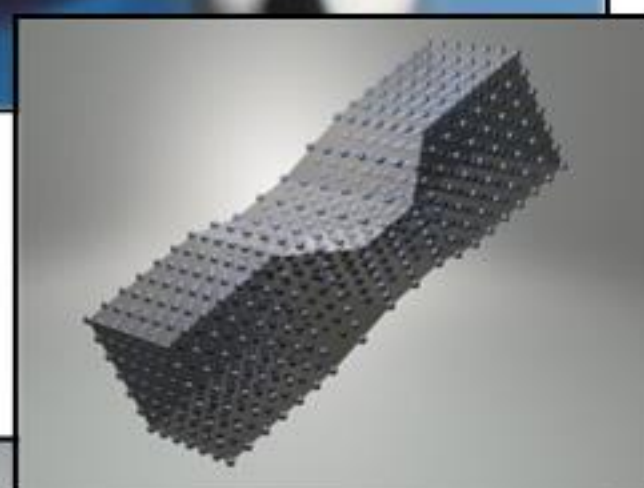
Typical Day in a Diffraction Lab



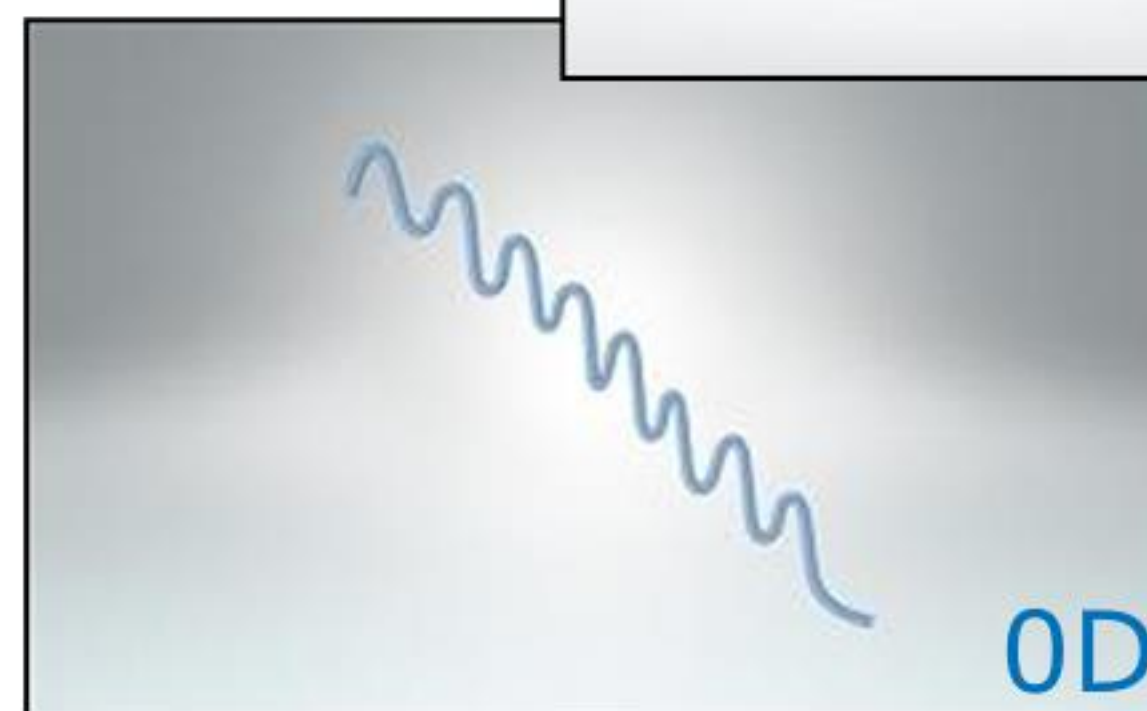
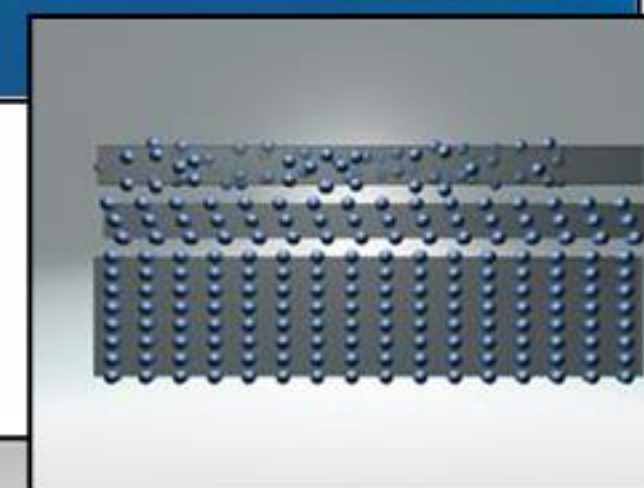
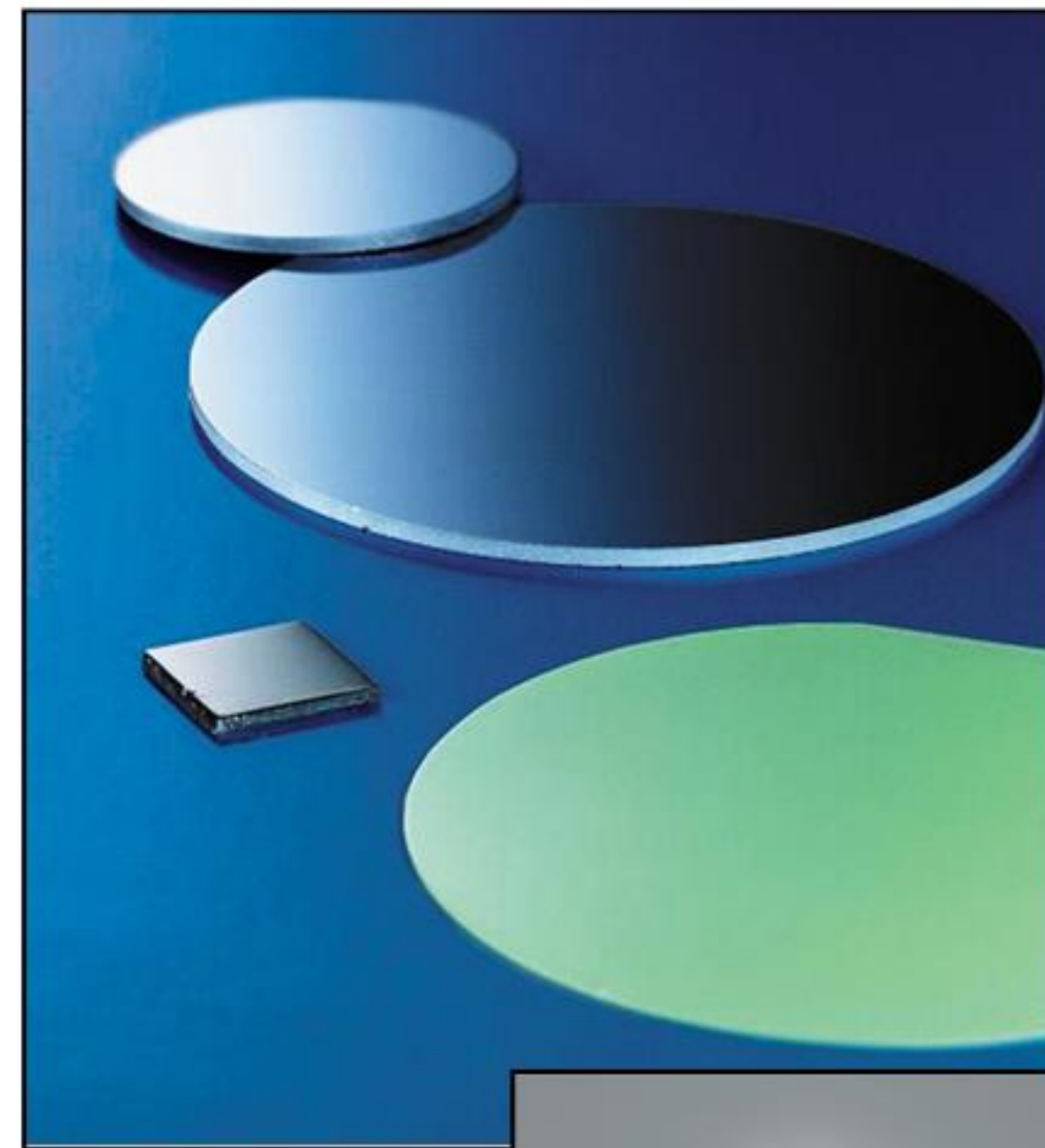
What is in the powder?



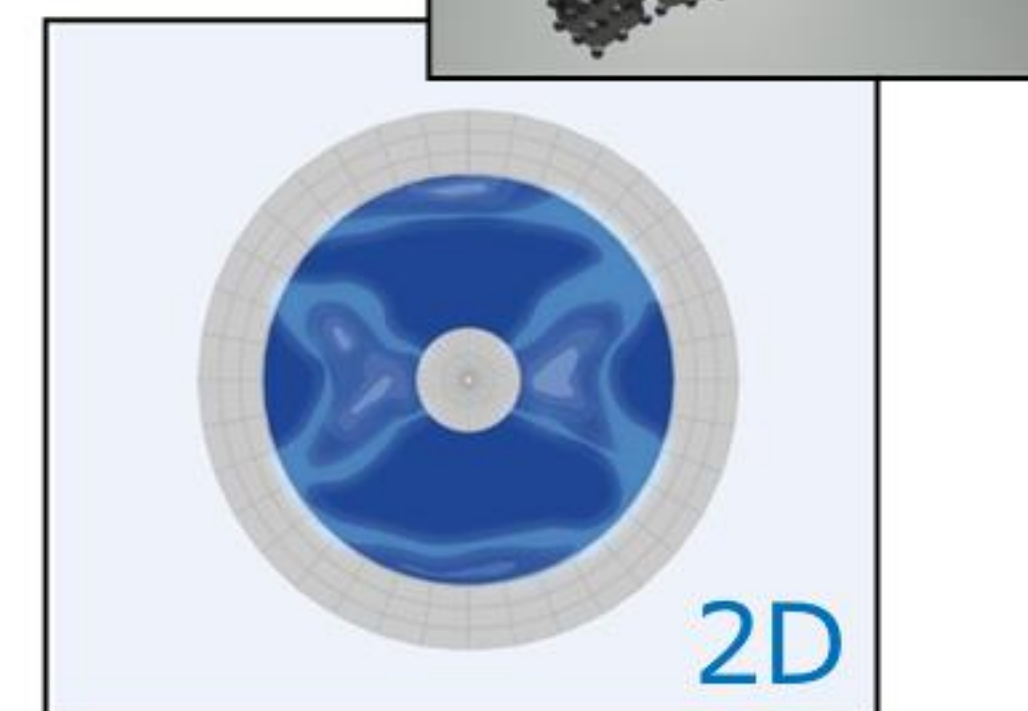
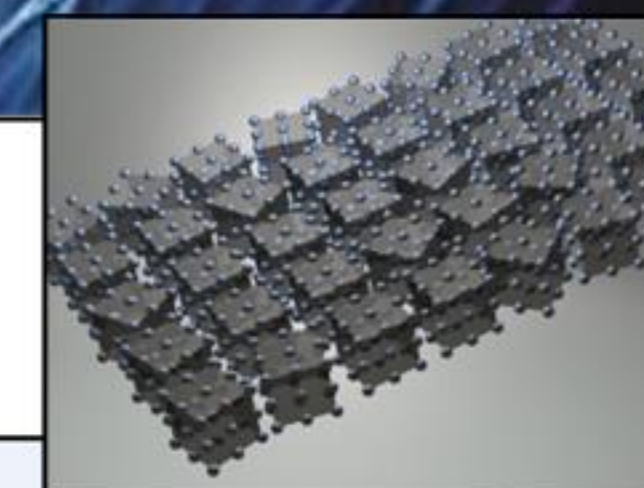
How much stress is in the bearing?



What is the film thickness?

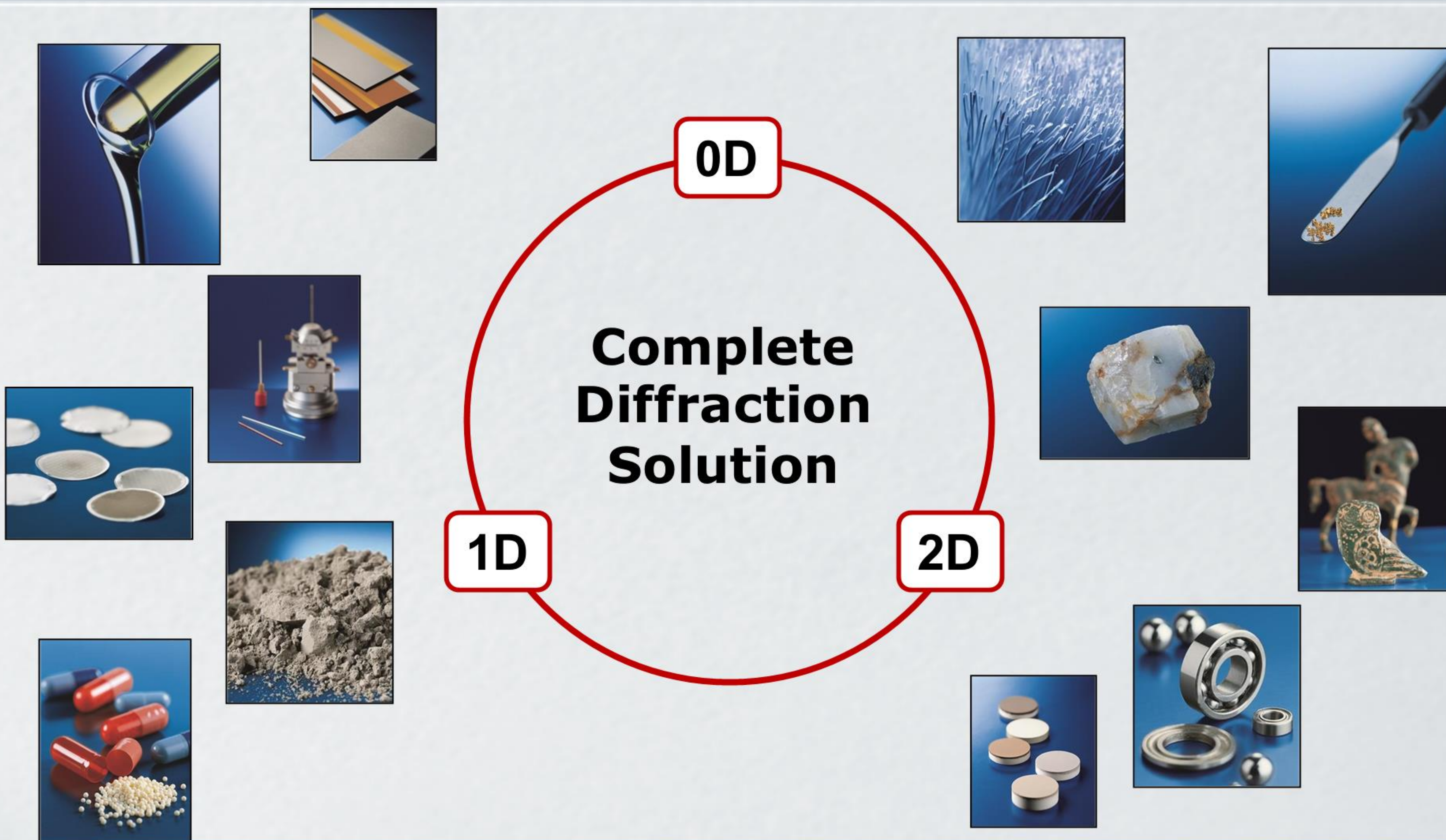


What is the fiber orientation?



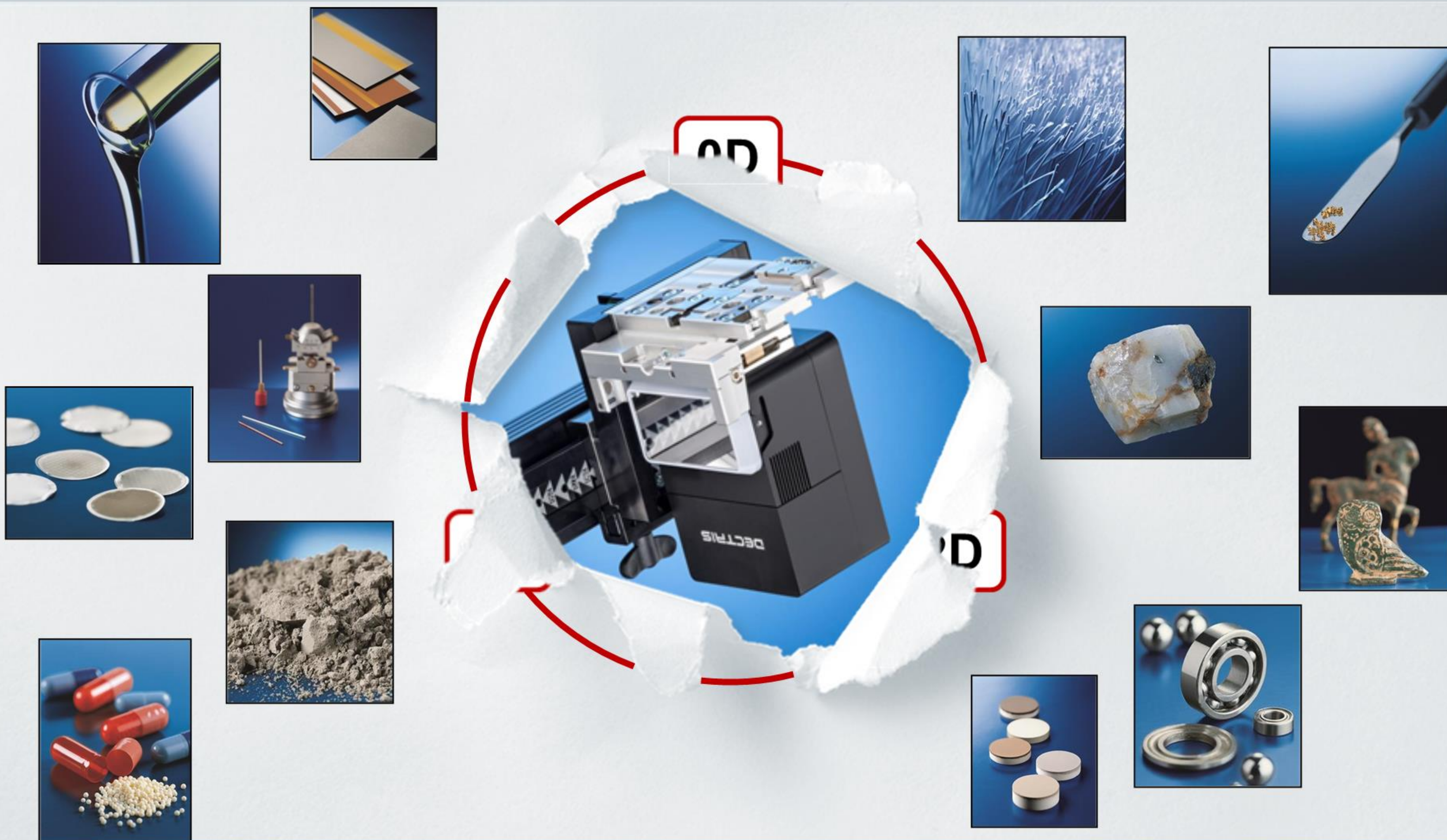
EIGER2 R 500K for D8 Family

Traditional Multi-Detector Solution



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EIGER2 R 500K for D8 Family

Pioneering Detector Technology and Ergonomics



Key Benefits of EIGER2

- Breakthrough Sensor Design
- Dynamic Detector Optimization
- Complete 0D/1D/2D Solution

EIGER2 for the D8 Family

Breakthrough Sensor Design



Outstanding **Active Area**

- 77.2 mm x 38.6 mm
- > 529,000 pixels

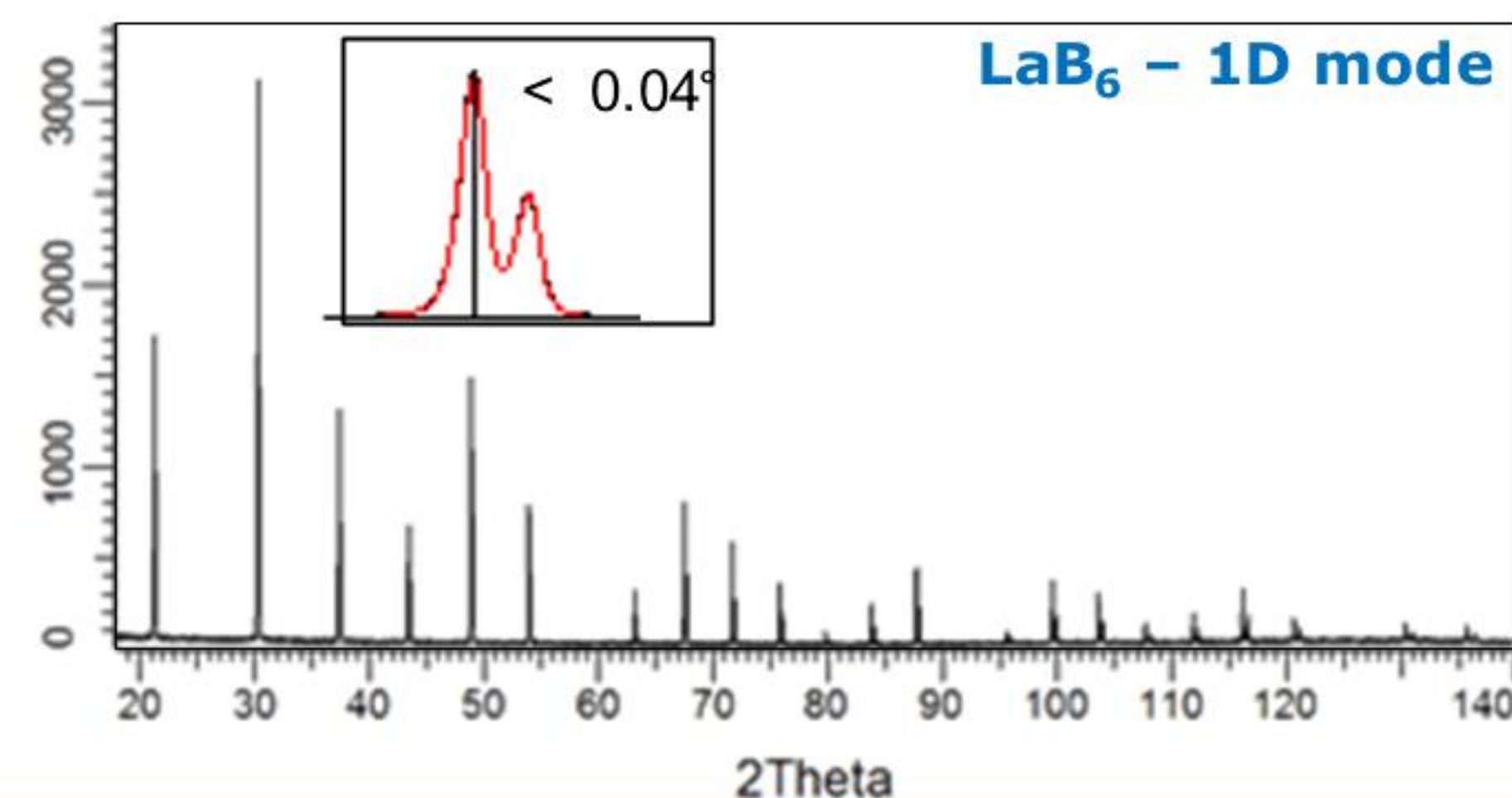
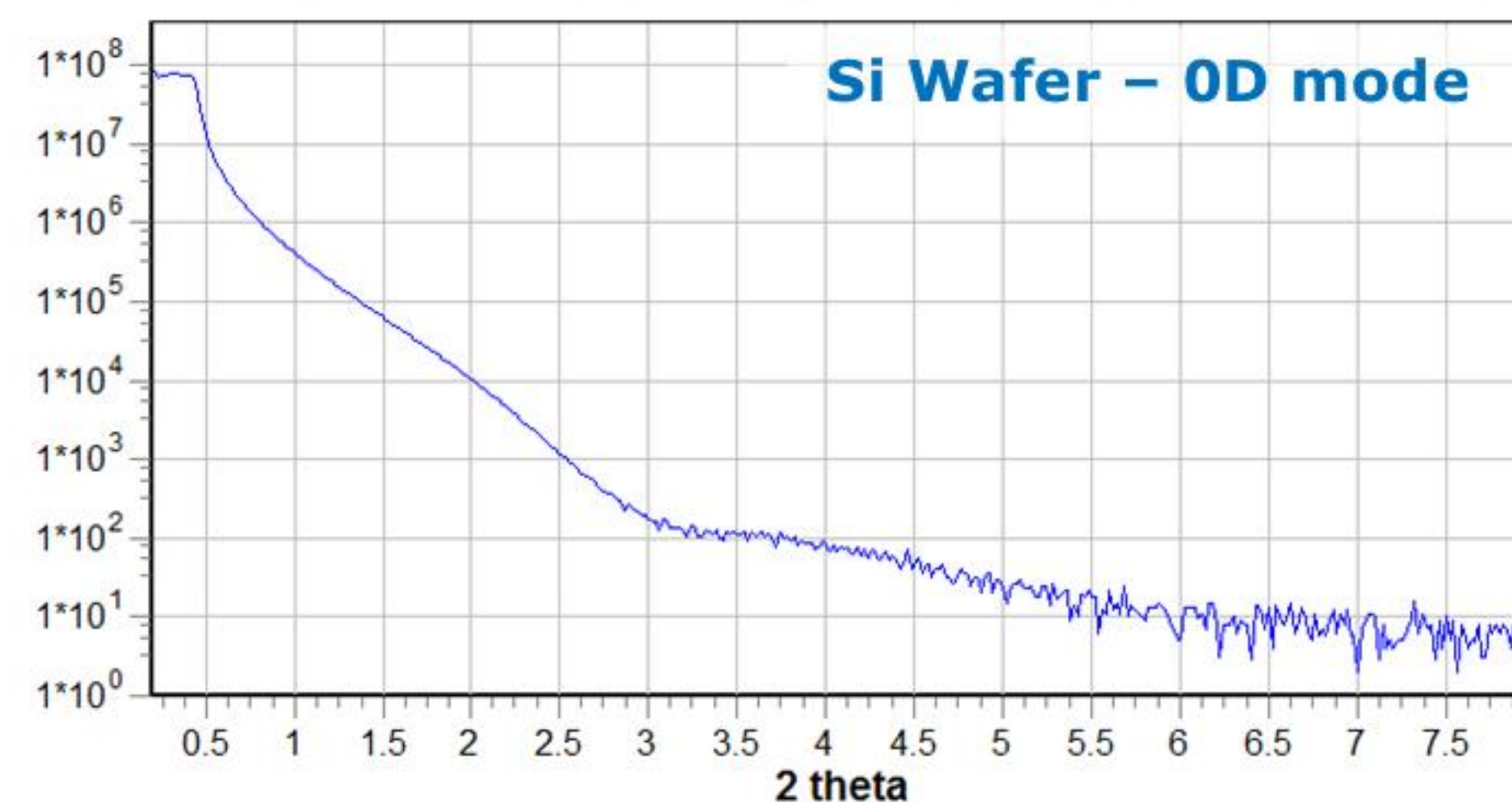
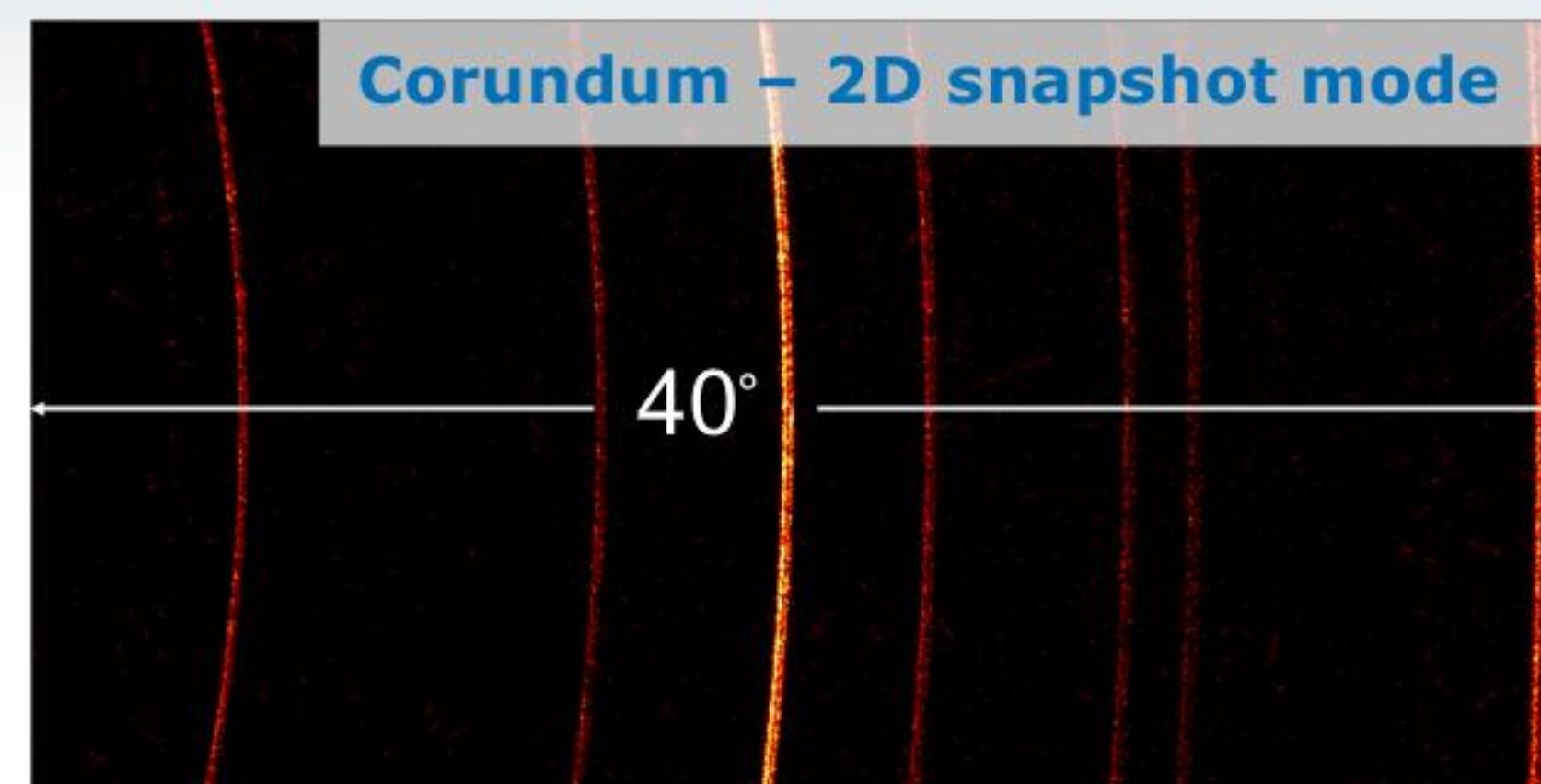
Highest Dynamic Range

- Ultra-high count rate
- **Dual threshold** for lowest background
- True Photon Counting

Exceptional Angular Resolution

- **75 μm** pixel size
- Optimized for best resolution and charge sharing

Compatible with Cr-Ag Radiation



EIGER2 for the D8 Family

Dynamic Detector Optimization



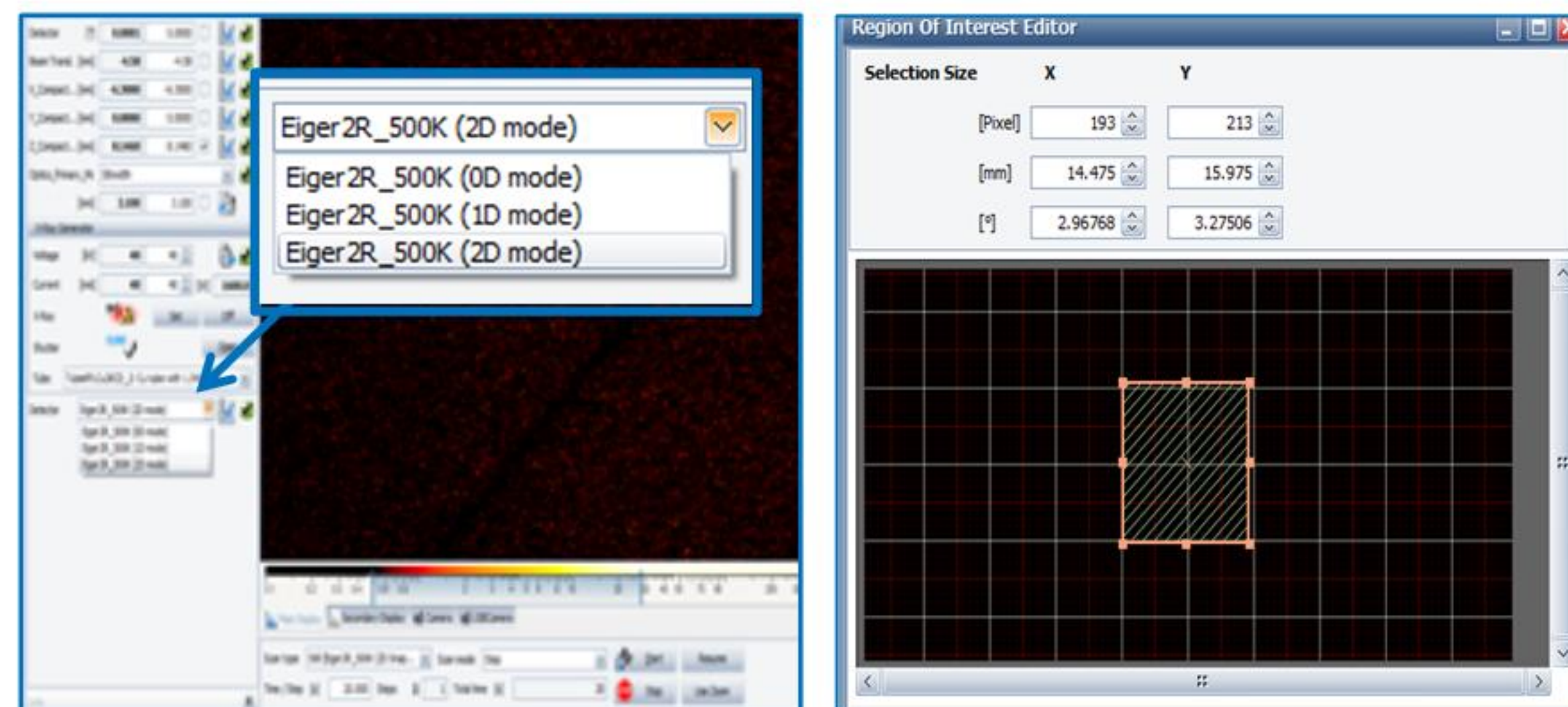
Tool and Alignment-Free Coverage Adjustment

- Sample to detector distance
 - Continuously variable
- Detector orientation
 - 2θ or Gamma optimized



Seamless Software Integration

- Push-button detector mode selection
- Region of Interest (ROI) definition



EIGER2 R 500K for D8 Family

Complete 0D/1D/2D solution



Plan

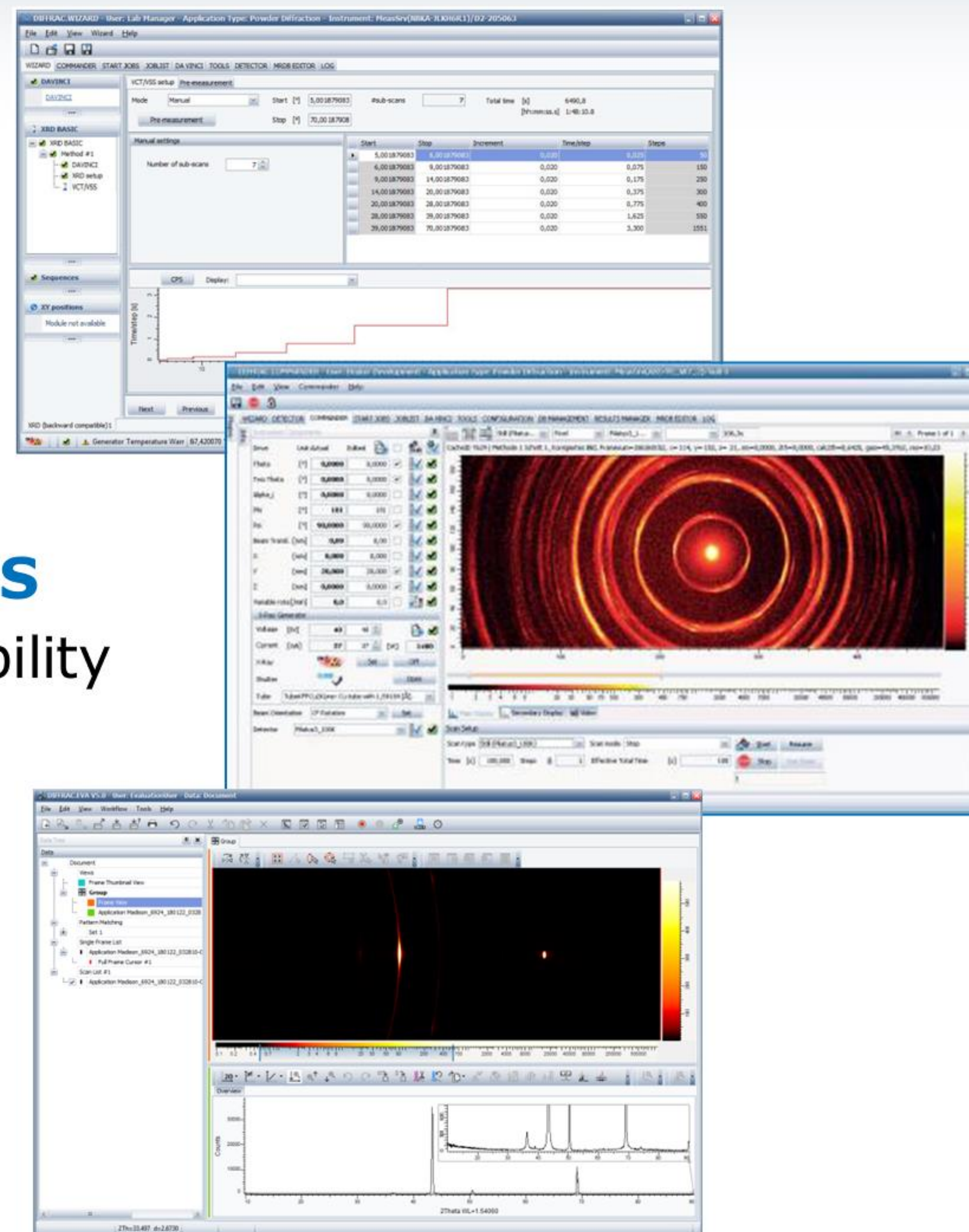
- Real time recognition in **DAVINCI**
- **WIZARD** for Method Creation

Measure

- Push Button execution in **START JOBS**
- **COMMANDER** for measurement flexibility

Analyze

- 0D, 1D and native 2D data evaluation



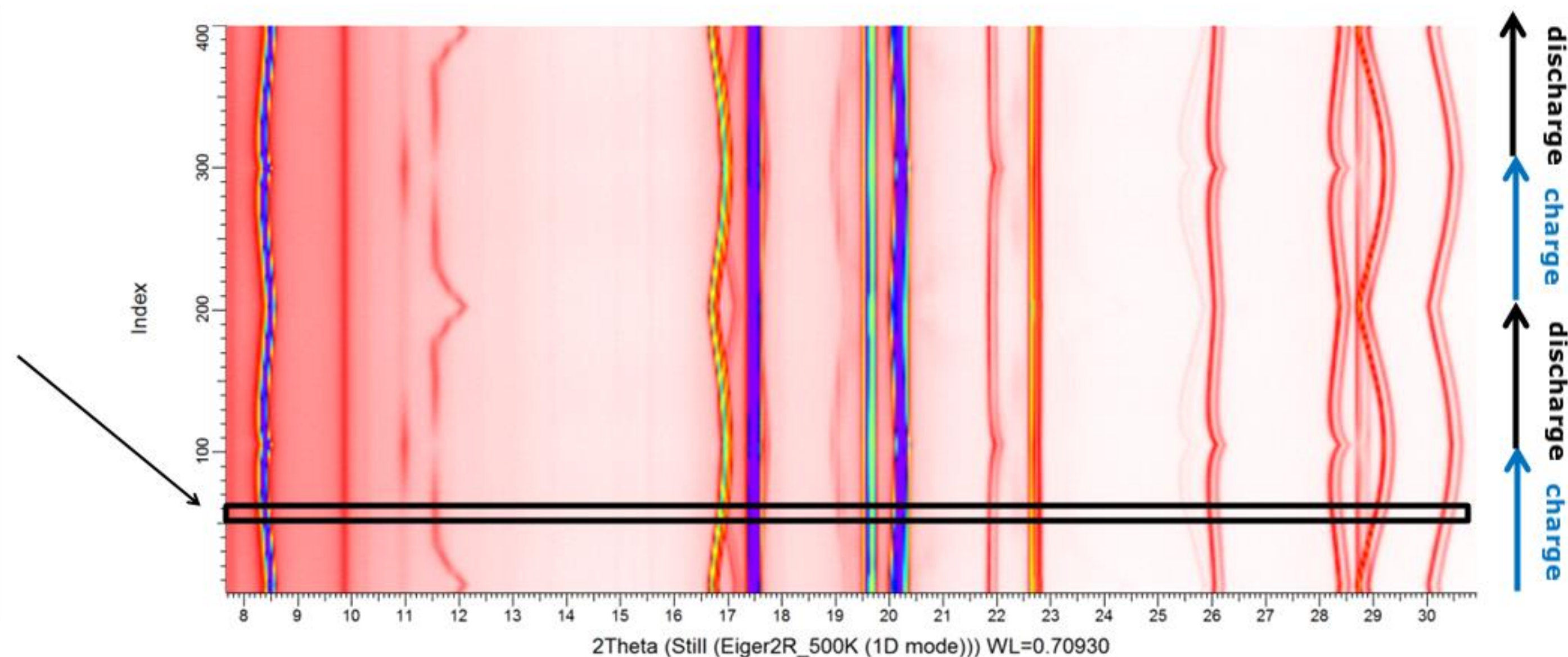
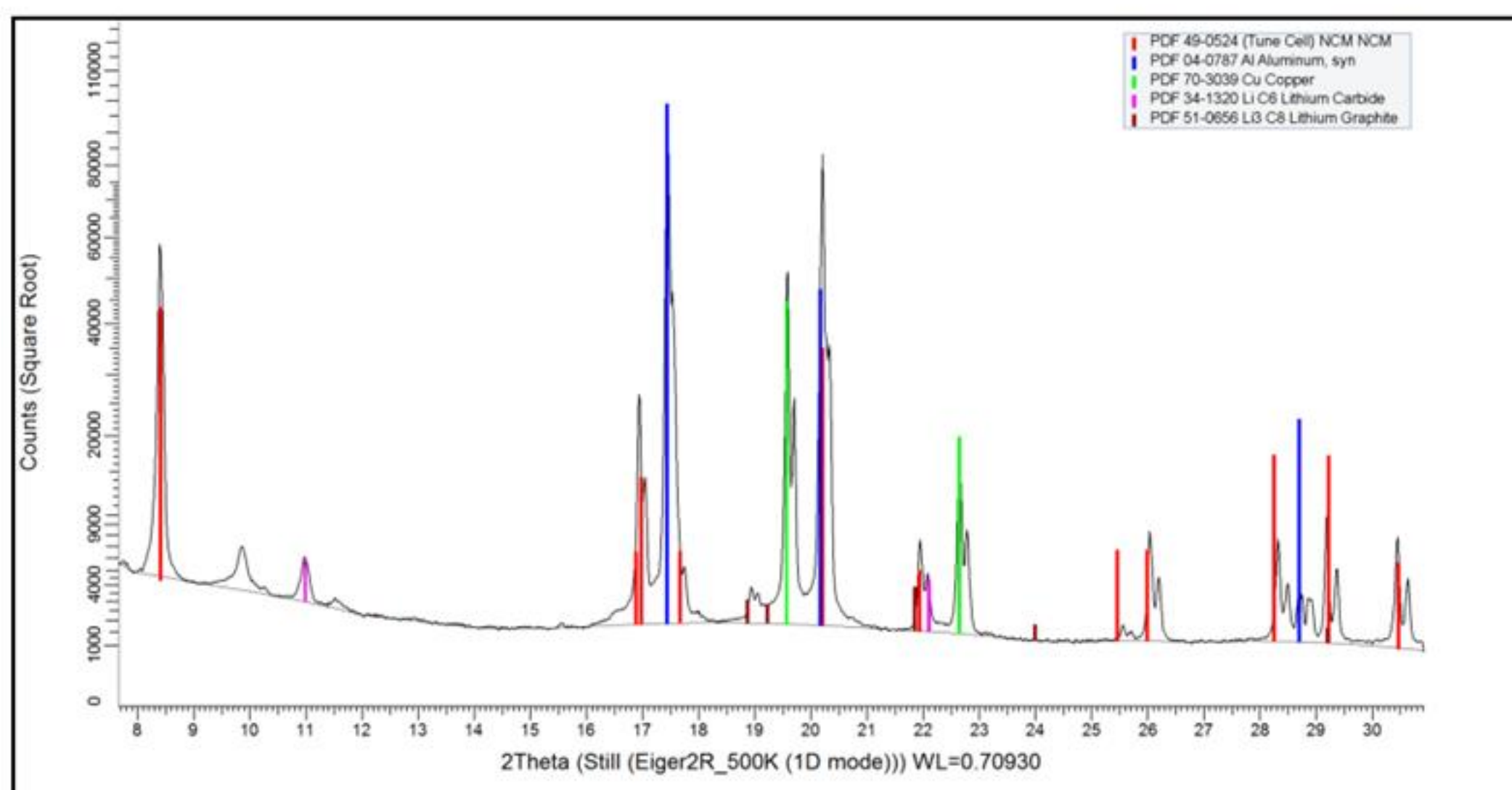
EIGER2 R 500K for D8 Family

In-Operando Pouch Cell Battery Analysis



Fast Powder Measurement

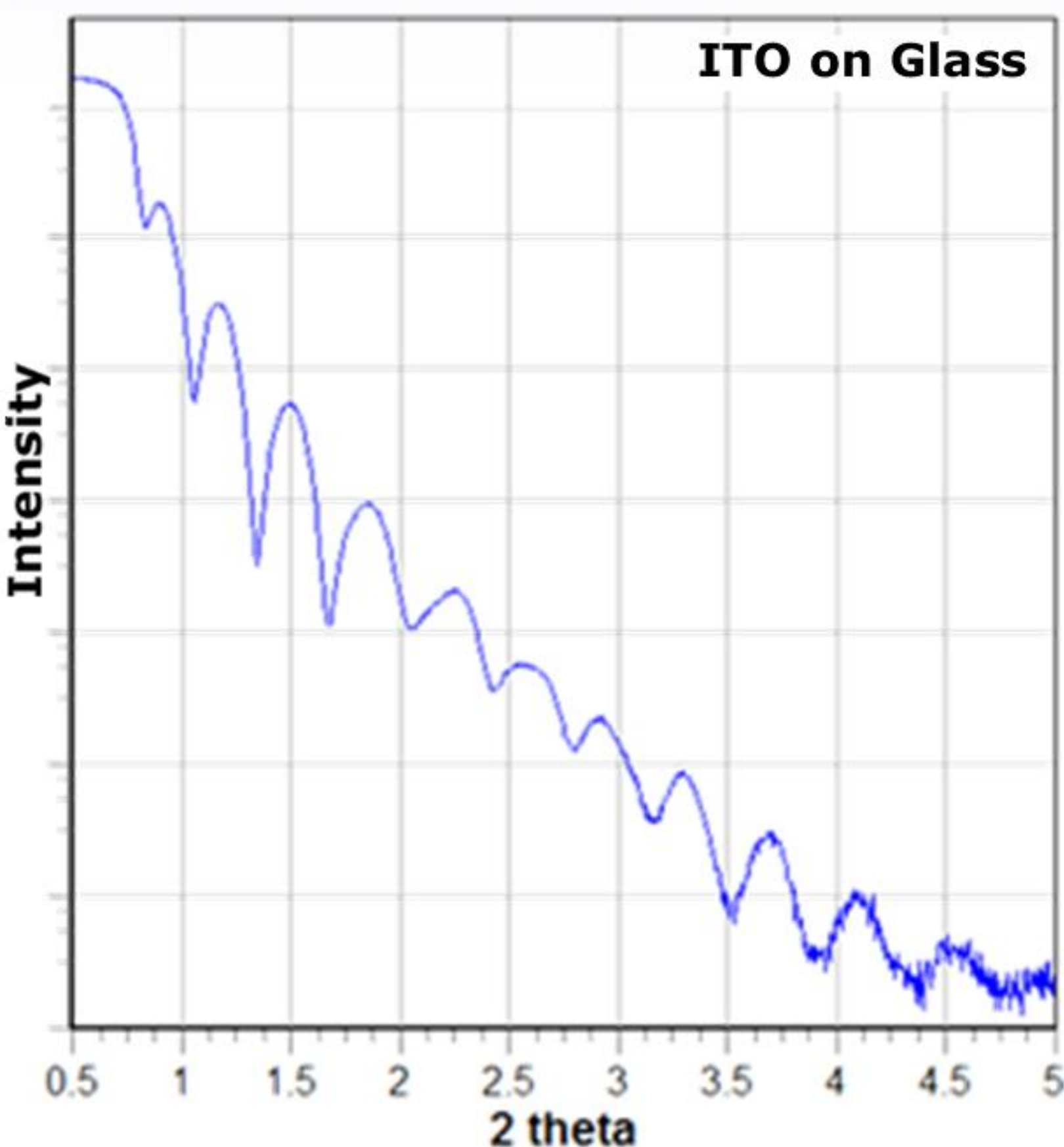
- 1D snap-shot (24° opening)
- λMo in transmission
- 3 min / pattern



Fastest possible pouch cell XRD measurement!

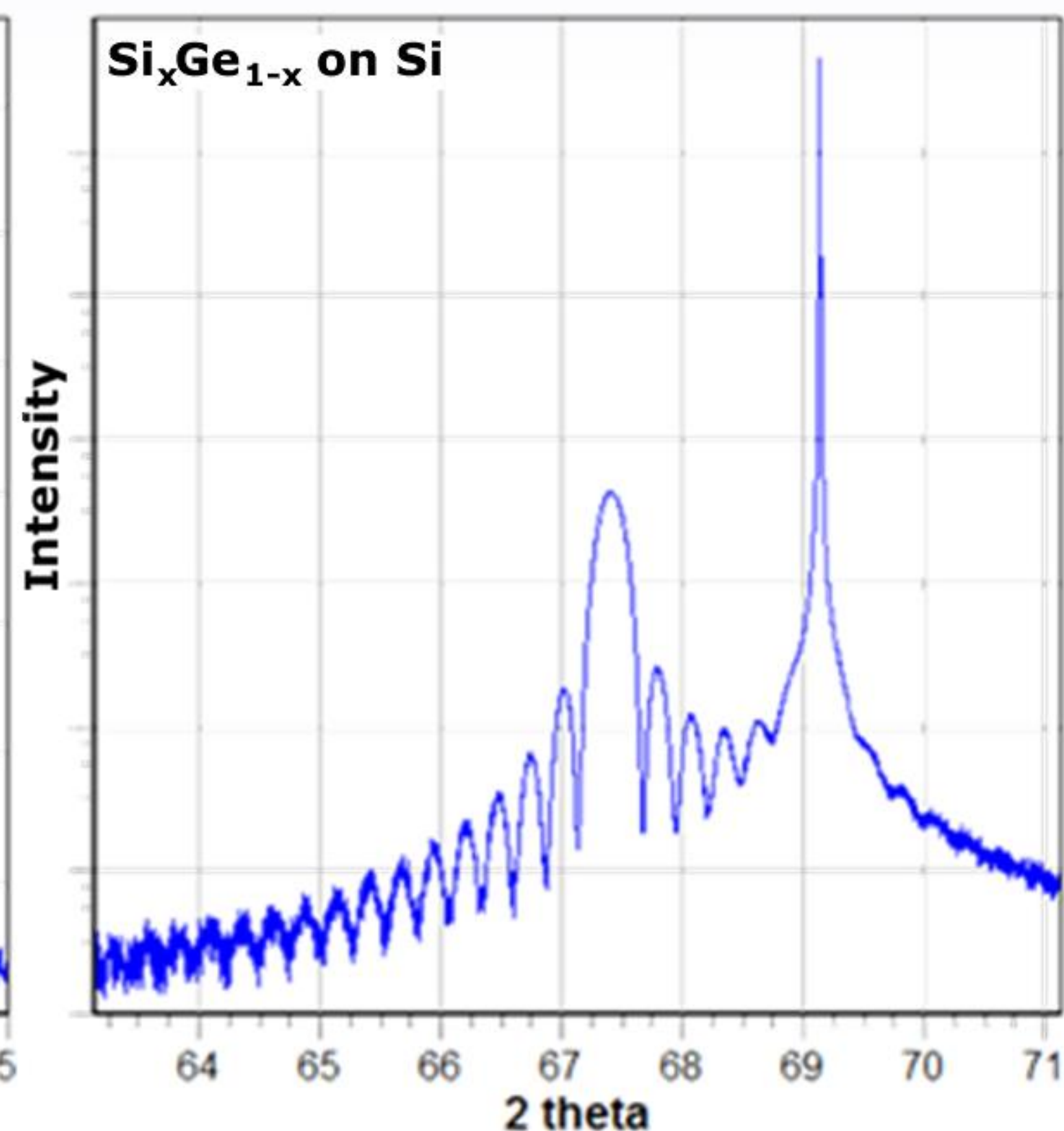
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Thin Film Metrology



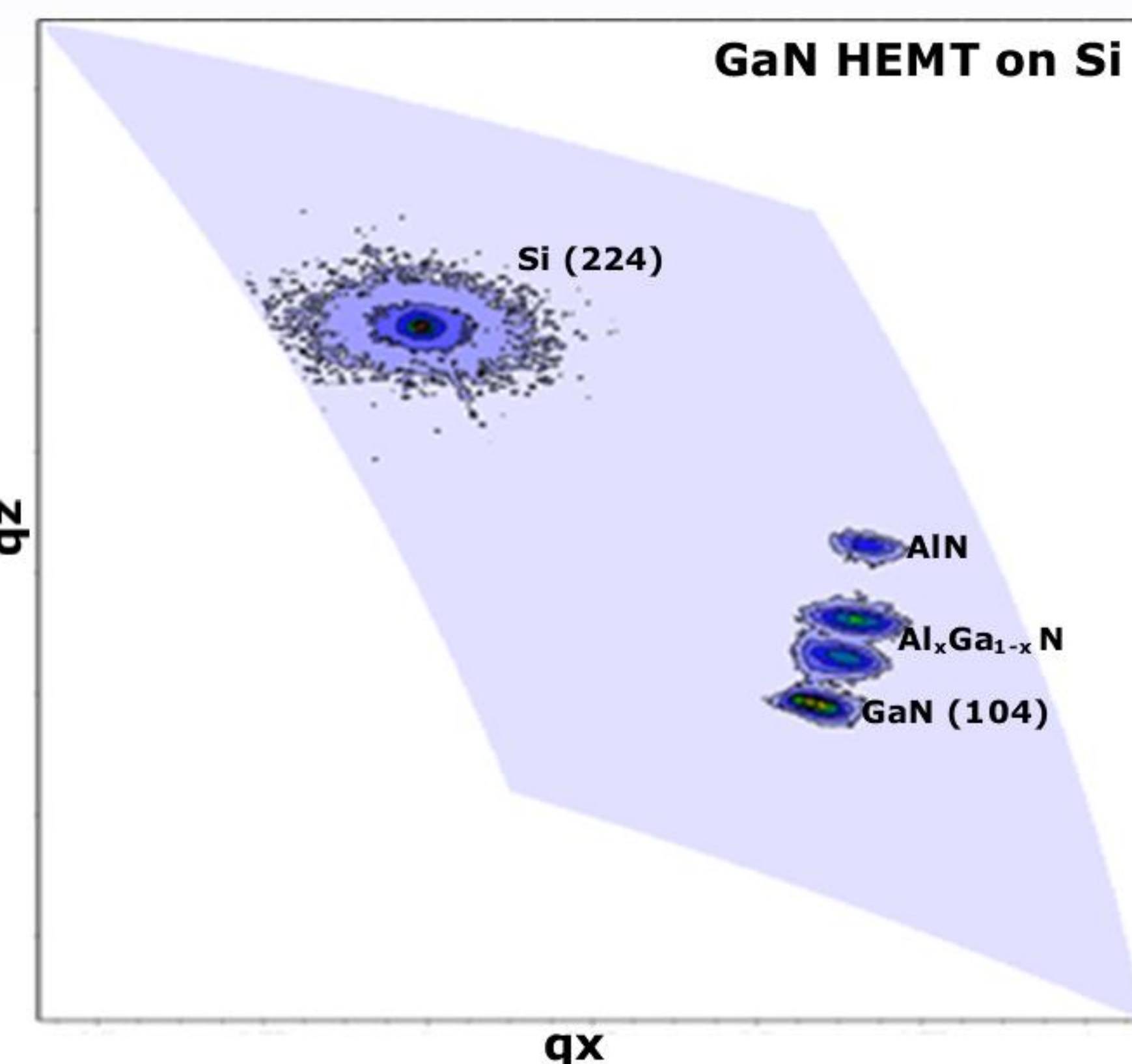
X-Ray Reflectometry

- 0D Mode (0.075 mm)
- >7 orders of magnitude



High Resolution Diffraction

- 0D Mode, (0.8 mm)
- >7 orders of magnitude



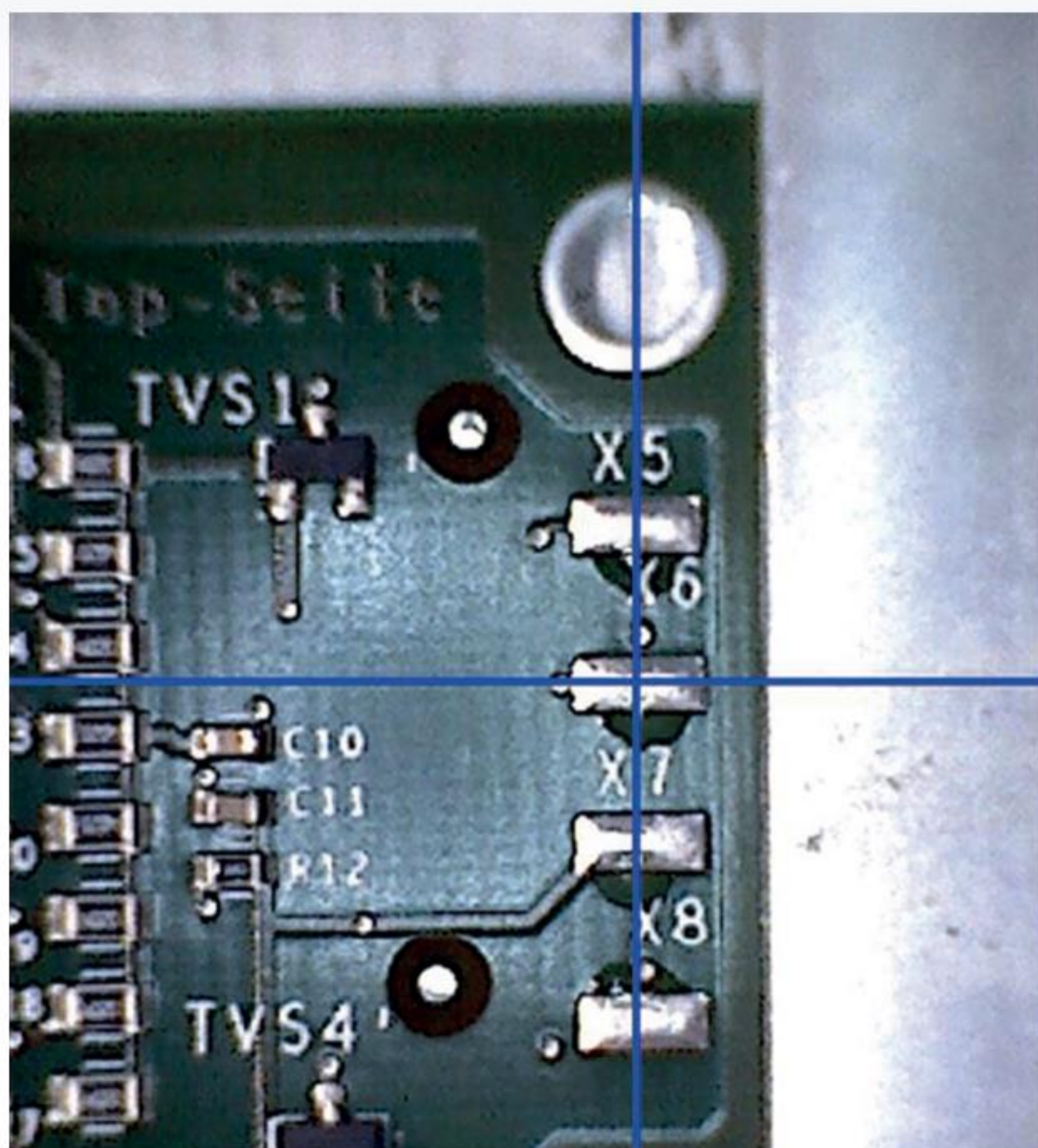
Reciprocal Space Mapping

- 1D Mode (14° opening)
- >8 orders of magnitude

7-8 orders of magnitude without absorbers!

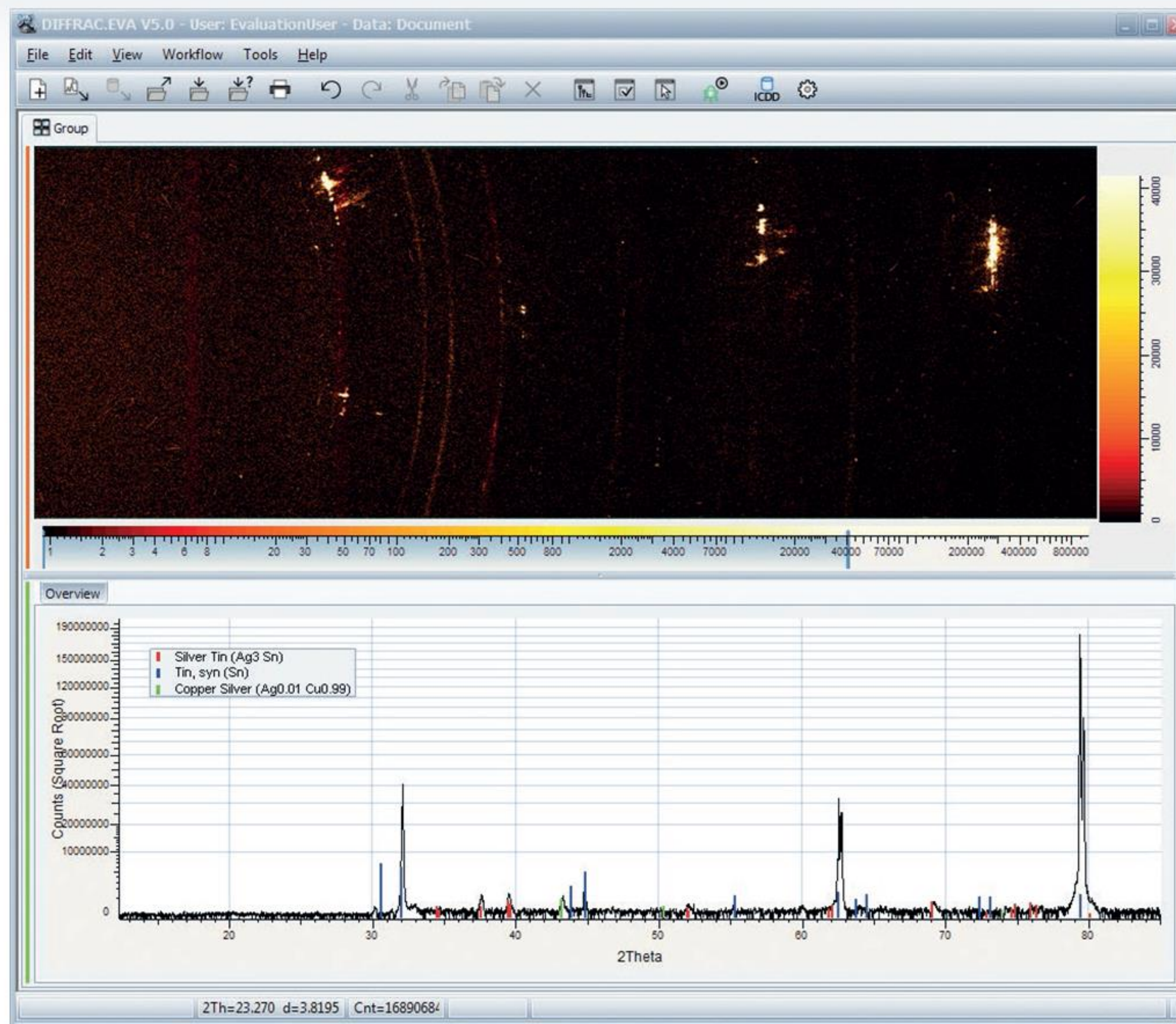
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Microdiffraction of a Soldered Joint



Microdiffraction

- 2D Scanning Mode (9° to 87° 2θ)
- Total Scan Time 7 min

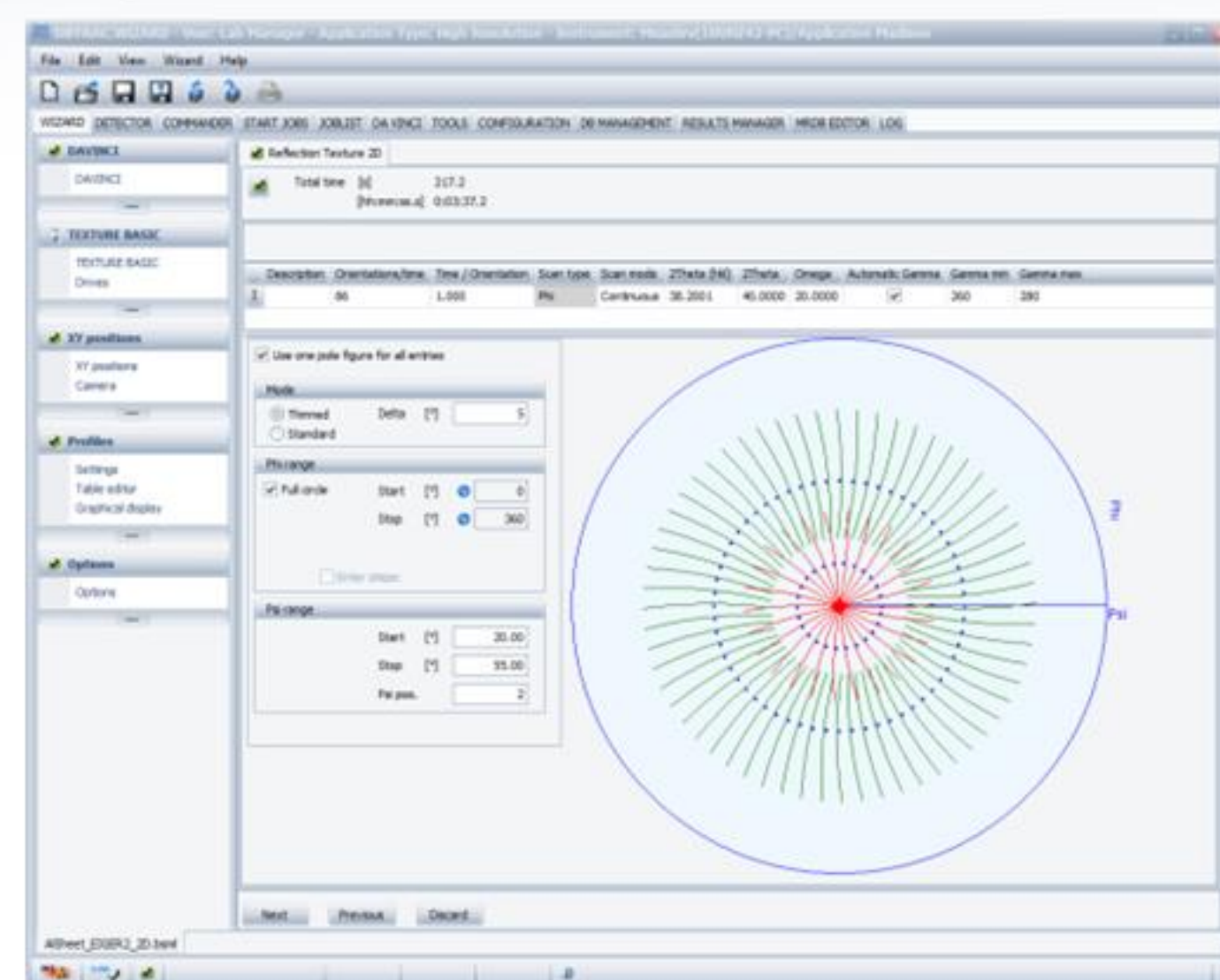


Patented 2D scanning algorithm produces perfect data!

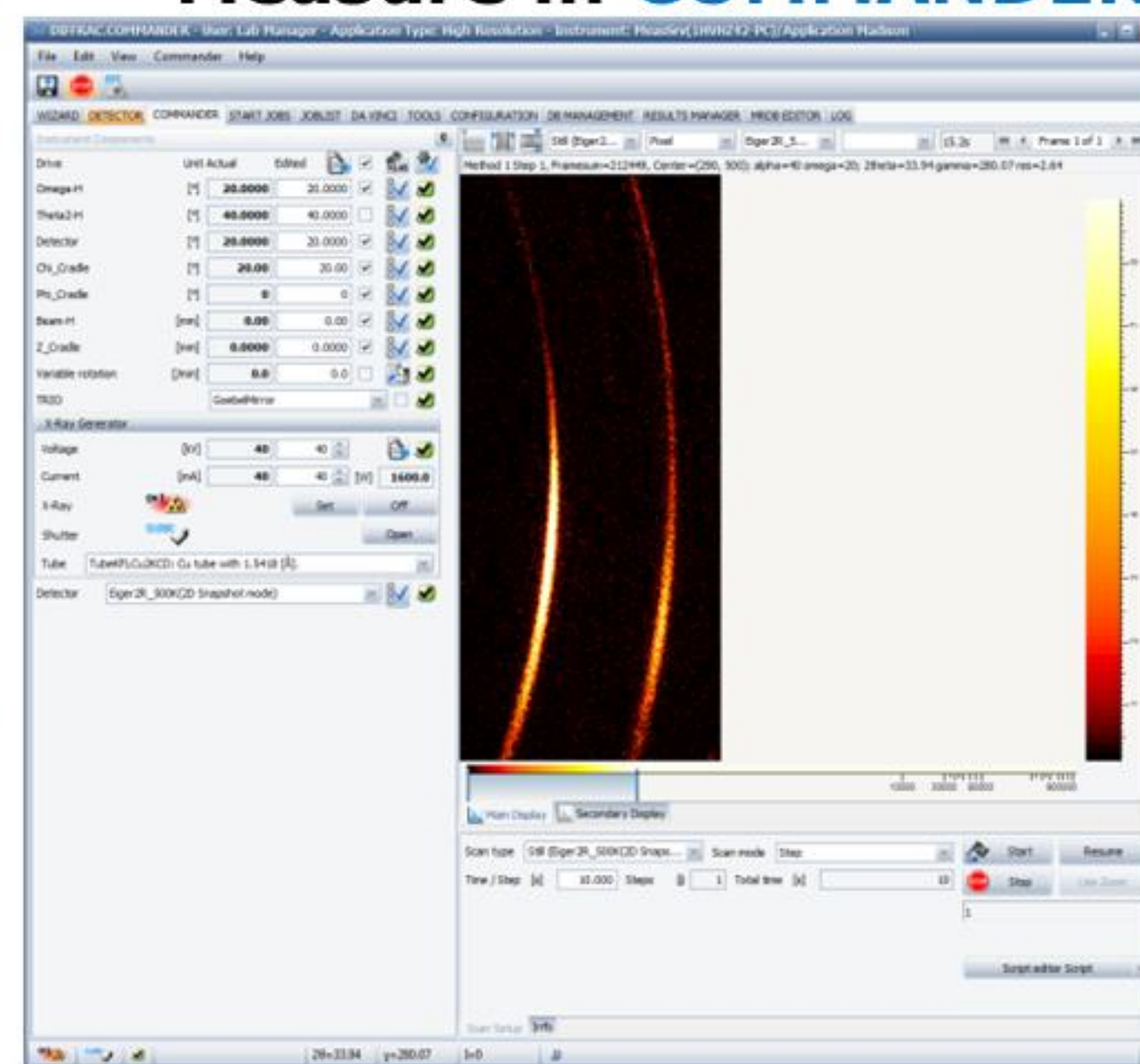
EIGER2 R 500K for D8 Family Texture Analysis



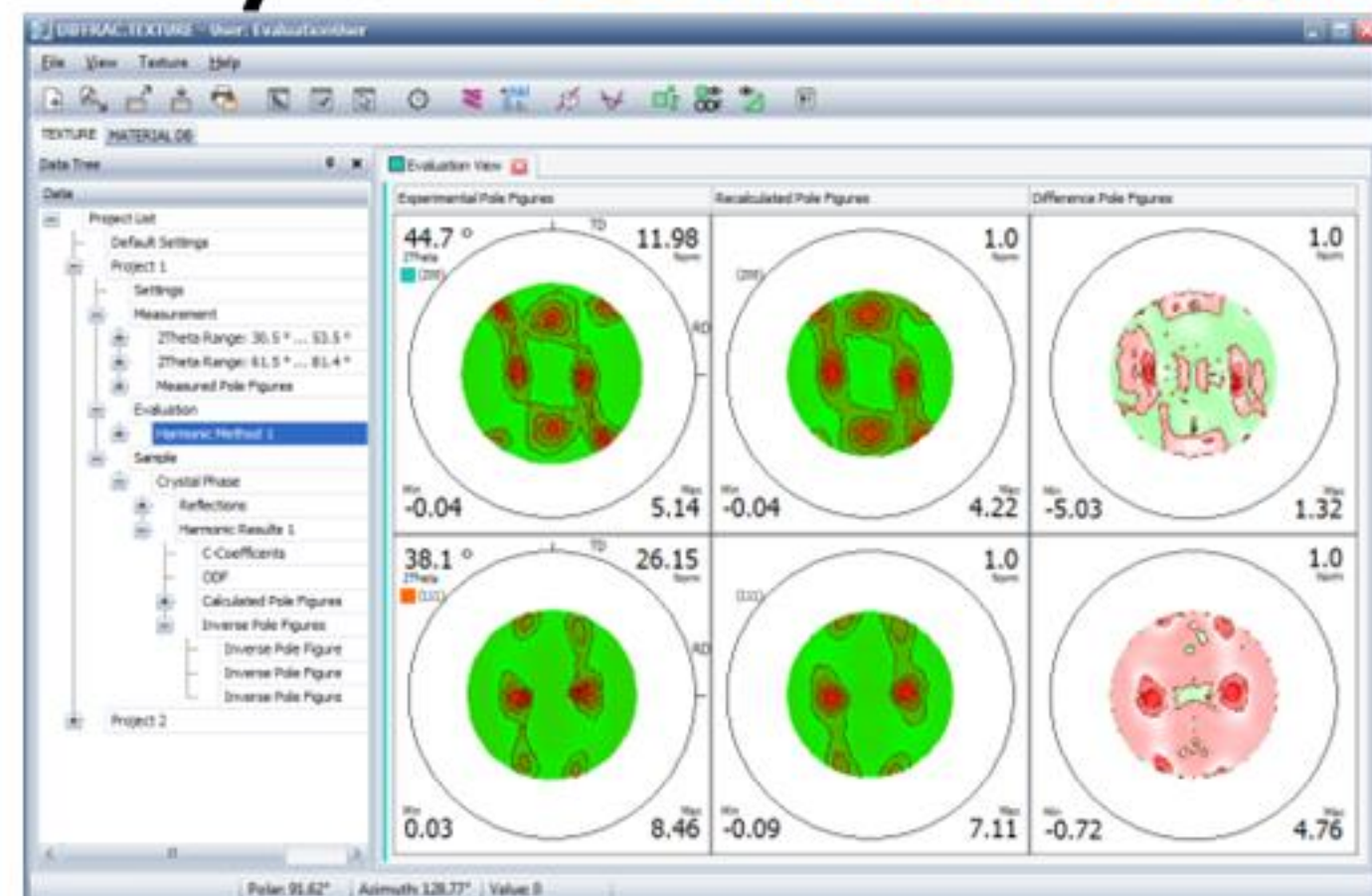
Plan in WIZARD



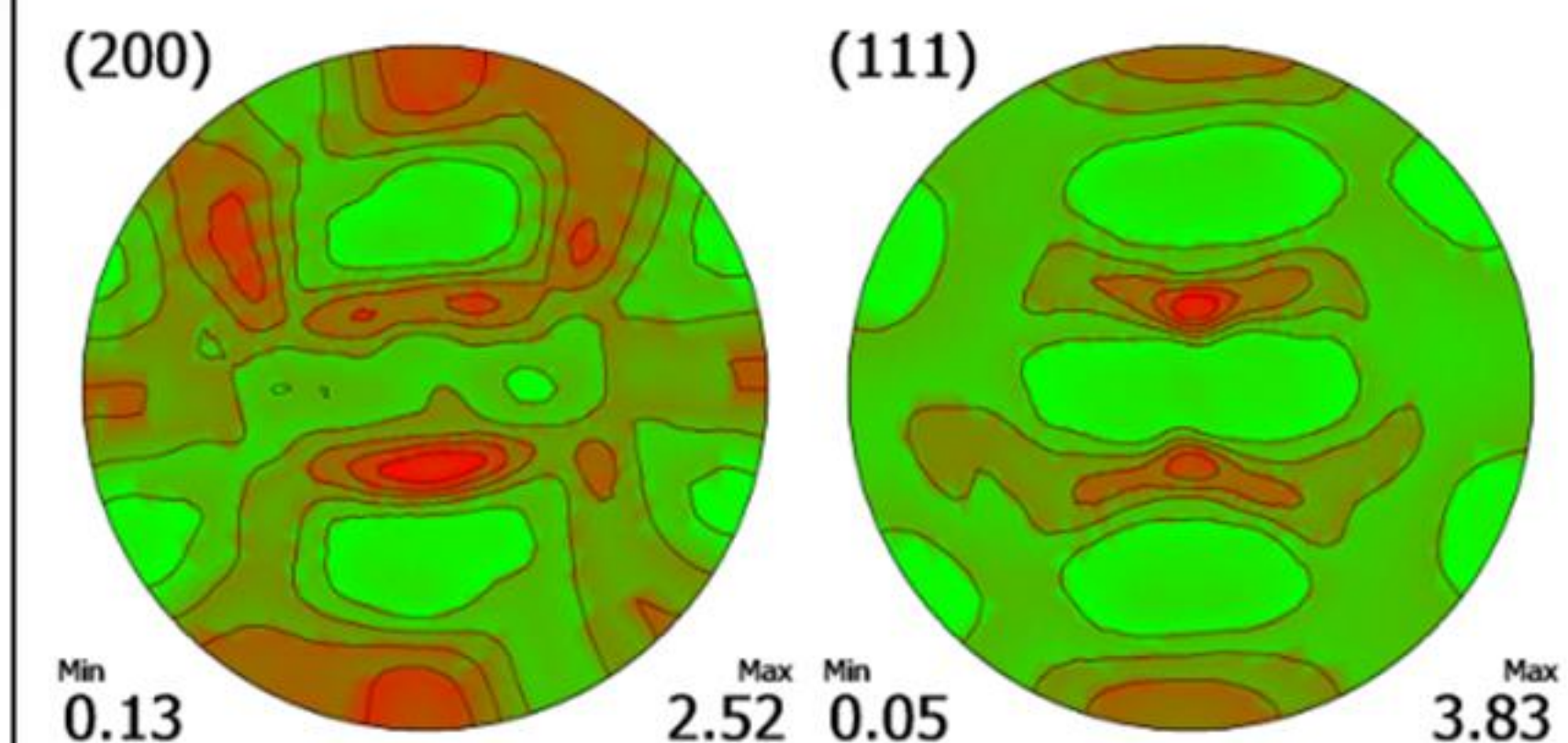
Measure in COMMANDER



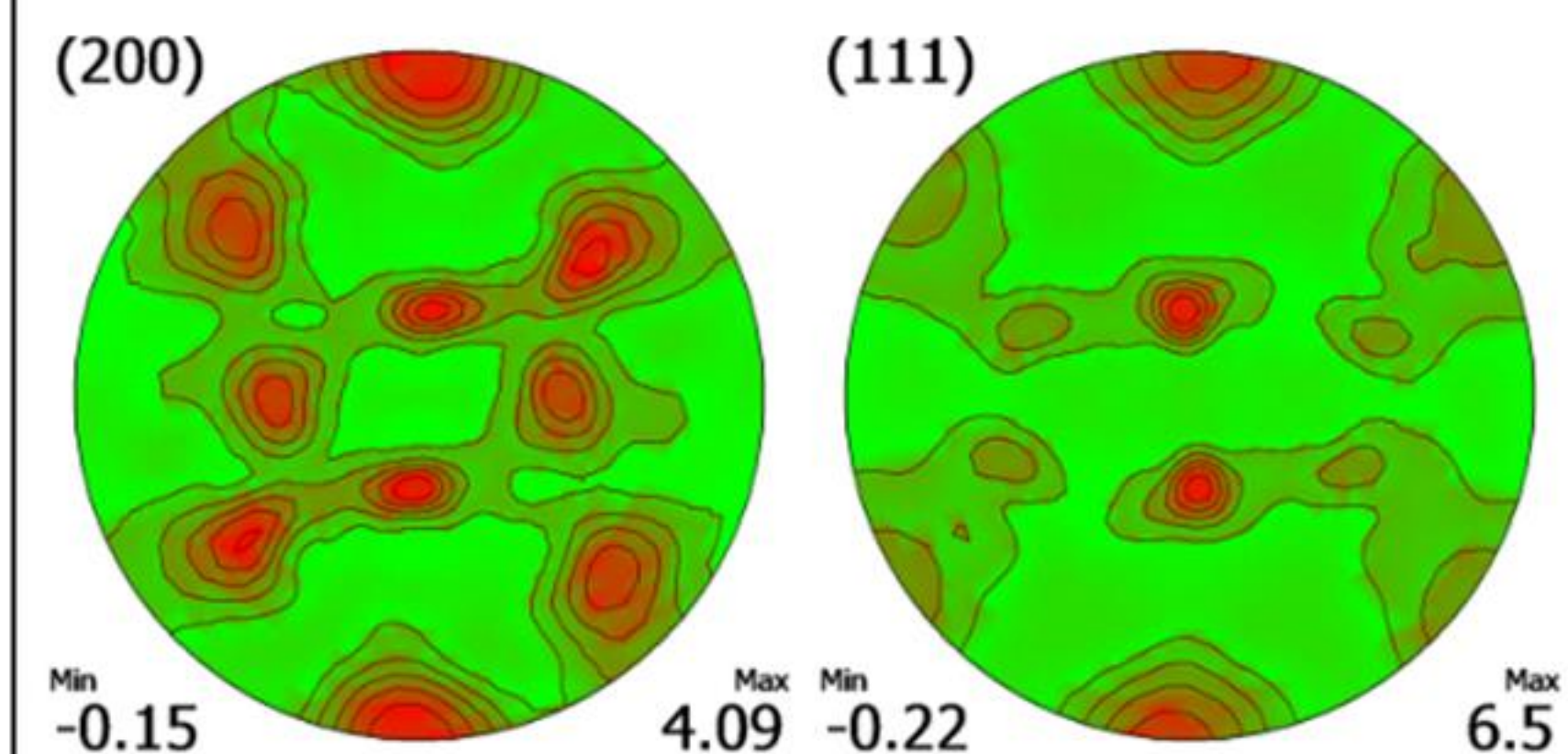
Analyze in DIFFRAC.TEXTURE



Raw Aluminum Stock



Processed Aluminum



Texture Analysis

- 2D Snapshot Mode (Gamma mode)
- Total Scan Time <5 min

Full integration with native 2D support from planning to pole figure!

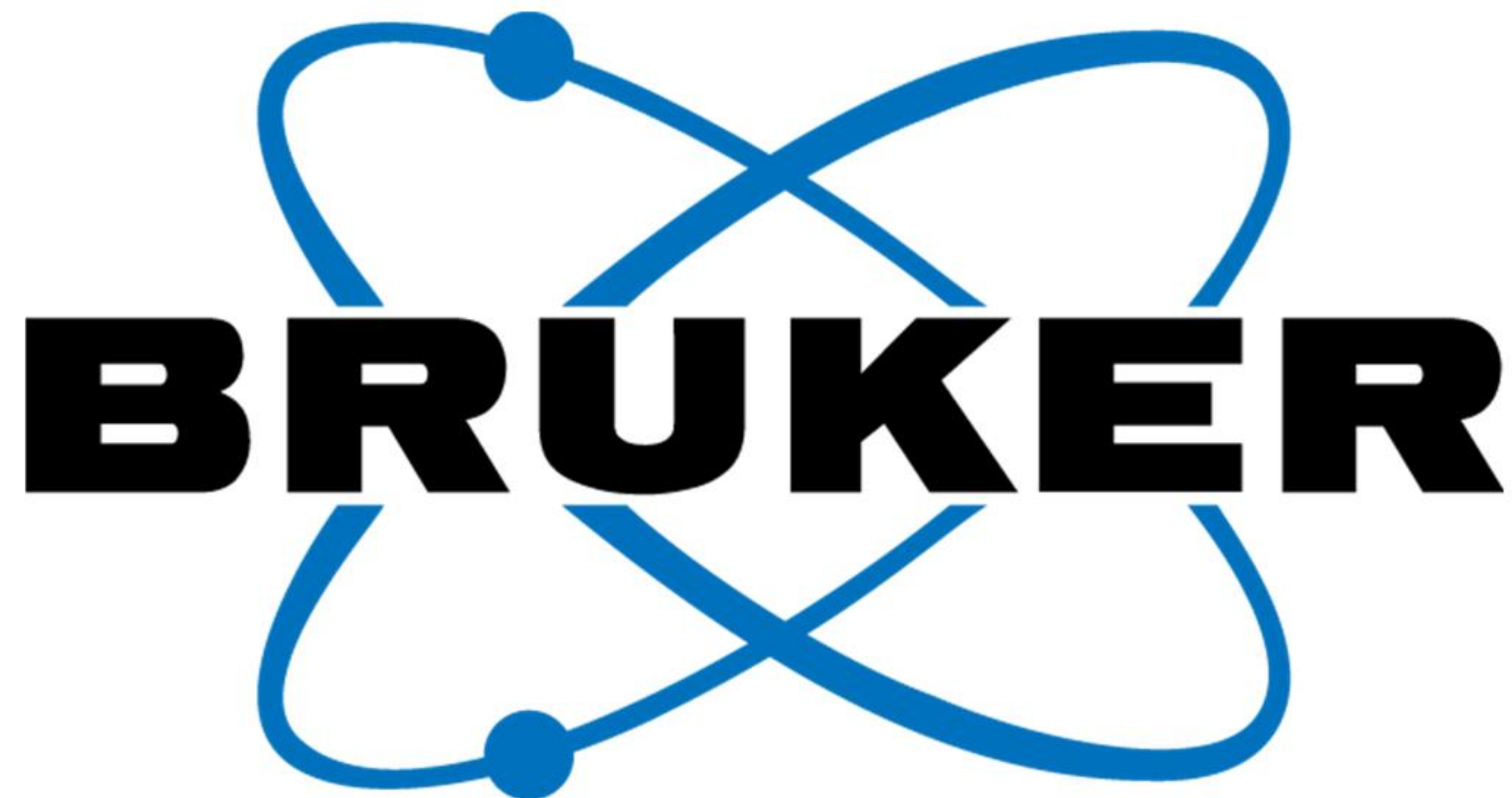
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 - Highest count rate
 - Exceptional angular resolution
 - Support for all common wavelengths
- Dynamic Detector Optimization
 - Tool and alignment-free coverage adjustment
 - Seamless software integration
- Complete 0D/1D/2D Solution
 - Plan – Measure – Analyze



Innovation with Integrity