

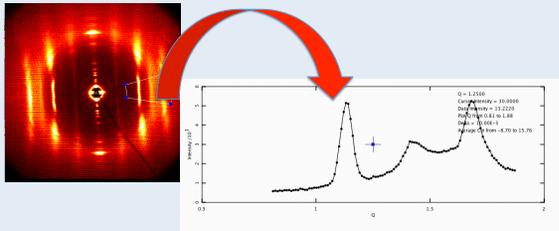
Datasqueeze

Graphical tools for x-ray data analysis

www.datasqueezesoftware.com

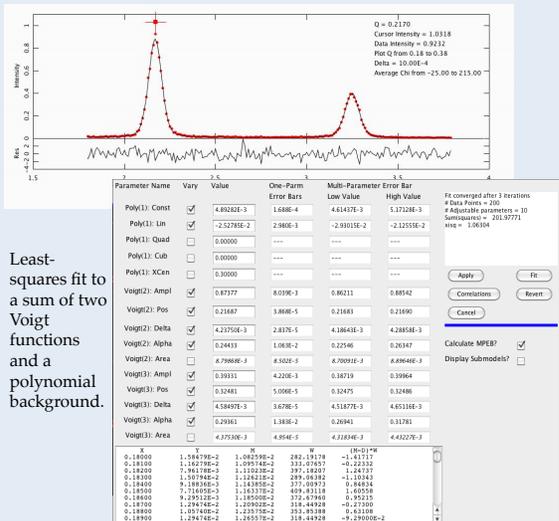
Reduction to x-y plot:

- Selection of plot options (powder, pole, Porod, Guiner, q, 2θ, x-y)
- Linear or logarithmic axes
- Sum or average pixels
- Control over graphic elements (font, line thickness, etc.)

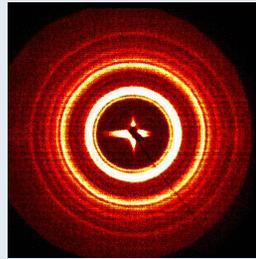


Least-squares fits:

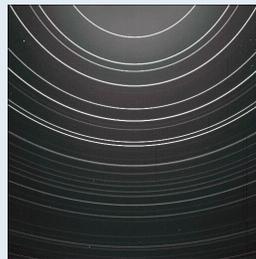
- Combine up to 22 functions
- Sum over choice of 19 different functions (Lorentzian, power law, thin rod, Percus-Yevick, etc.)
- Report both standard error bar and multi-parameter error bar



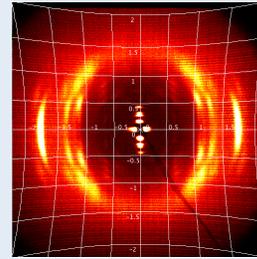
Least-squares fit to a sum of two Voigt functions and a polynomial background.



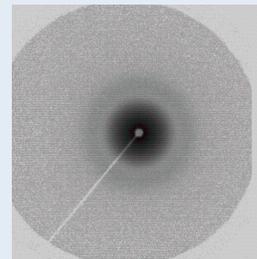
Powder diffraction pattern from dendrimers self-assembled in the Pm-3n cubic phase.



Al₂O₃ powder diffraction. Detector has been rotated 35° away from beam zero direction.



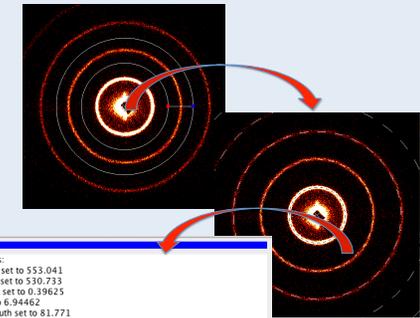
Fiber diffraction from a helical columnar liquid crystal.



Suspension of PbSe nanorods. Logarithmic intensity scale.

Calibration:

- Use AgBeh or other calibration pattern to determine beam center, image scale, detector rotation
- Capability for both standard small-angle configuration (beam on detector) and wide-angle (detector rotated away from beam)
- Manual calibration or wizard



Other features:

- Intuitive interface, short learning curve
- Batch alternative to graphical user interface
- More than 25 file formats supported
- Calculate pixel statistics
- Import x-y files for fits, plots

Specifications:

- Runs on Mac, Windows, Linux
- Requires Java 1.4 or above
- Free 10-day trial, \$100 license, \$50 academic
- Detailed manual (pdf), onboard help menu
- For information: info@datasqueezesoftware.com
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- Author: Paul Heiney, Univ. Pennsylvania