



## RIETVELD REFINEMENT & INDEXING CLINIC

Fall 2023

ICDD Headquarters: Newtown Square, PA

**Learn the principles and techniques of Rietveld analysis at ICDD's specialized clinic. Reinforce your learning experiences with our hands-on data analysis training!**

Because the ICDD wants you to experience a greater understanding of the Rietveld Method, the faculty highly recommends that you attend XRD I & II prior to taking this specialized clinic.

Let the experts guide and advise you through the problem solving techniques to maximize the quality of your results!

Powder pattern indexing and Rietveld structural refinement techniques are complementary and are often combined to determine the structure of a material. Successful indexing of a powder pattern is considered strong evidence for phase purity. Indexing is considered a prelude to determining the crystal structure and permits phase identification by lattice matching techniques.

This clinic introduces the theory and formalisms of various indexing methods and structural refinement techniques. One unique aspect of this clinic is the extensive use of computer laboratory problem solving and exercises that teach method development in a hands-on environment.



## DISCOVER THE RIETVELD METHOD AS A POWERFUL TOOL FOR:

- Extracting accurate and precise structural information from powder patterns of inorganic, organic, coordination compounds, and metal & alloy compounds
- Performing accurate quantitative phase analysis
- Obtaining microstructural information such as size, strain, and texture

In recent years, ICDD's PDF-4+ database has included atomic coordinates and related parameters for a significant number of entries. This clinic will also focus on the expanded quantitative and structural analysis capabilities of PDF-4+.

**Please note:** A minimum of 10 registrants per course is required, otherwise the course will be cancelled and your registration fee will be refunded. You will be notified of a course cancellation no later than two weeks prior to the start of the course.

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For more information, please visit the ICDD web page

[www.icdd.com/rietveld](http://www.icdd.com/rietveld)