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PDF-4/Organics 2021

Solve Difficult Problems, Get Better Results

Designed to solve difficult problems that are analyzed by powder diffraction analysis for a multitude of applications in the pharmaceutical, regulatory, specialty chemical, biomaterial, and forensic fields.

Coming this Fall!

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KEY POINTS

- Featuring 541,500+ Entries, including121,000+ Entries with Atomic Coordinates
- Combines Powder & Single Crystal Data
- Digitized Patterns
- Molecular Graphics
- Analyze Neutron, Electron, X-ray & Synchrotron Data

ABOUT US

DIFFRACTION DATABASES YOU CAN TRUST

The Powder Diffraction File™ (PDF®) is the only crystallographic database that is specifically designed for material identification and characterization. It is an analysis system that is comprised of crystallographic and diffraction data. These data with embedded data mining and analysis software have been through a quality and classification editorial review system.

ISO CERTIFIED

The only crystallographic database organization in the world with its Quality Management System ISO 9001:2015 certified by DEKRA.

ABOUT PDF-4/Organics

PDF-4/Organics 2021 database is a highly targeted collection, with special focus on materials used in commercial and regulatory fields. It is designed to solve difficult problems that are analyzed by powder diffraction analysis for a multitude of applications in the pharmaceutical, regulatory, specialty chemical, biomaterial, and forensic fields.

The PDF-4/Organics provides the best of both worlds by including single crystal and powder diffraction data together in a single, edited, and standardized database. We not only extract from the public literature like other databases, we add unique content by extracting patent data, combining single crystal and powder references, adding common inorganics and polymers, and continuously adding targeted materials through grants and research proposals.

For more information contact ICDD at marketing@icdd.com

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PDF-2 2021

Phase Identification + Value

Quality and subfile filters combined with 71 different searches and 57 display fields enable you to target your results for more accurate identification.

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KEY POINTS

- Featuring 316,500+ Entries
- Rapid, Accurate Phase Identification
- Stand Alone Database - includes added value
  software: data mining plus Sleve, search indexing software
- Cost Effective License (5 year)
- Quantify with Reference Intensity Ratio (I/I_c)*
  *3rd party software only

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ABOUT PDF-2

PDF-2 2021 is the most cost effective license! PDF-2 features a FREE stand-alone option using ICDD's integrated data-mining software, along with ICDD's search-indexing software, Sleve. Designed for inorganic materials analyses, PDF-2 also includes common organic materials from ICDD to facilitate rapid materials identification.

You can trust your diffraction data to ICDD. All ICDD databases are reviewed, edited, and standardized prior to publication. You can be confident with PDF-2 to get you the right answer.

The PDF-2 database is licensed for five (5) years and offers the highest value in the global marketplace. This value is due to its low annual cost amortized over the lifetime of the license, combined with its large content of powder and single crystal powder data, and its high level of quality with embedded software for data mining and search-indexing.

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INTERNATIONAL CENTRE FOR DIFFRACTION DATA

LET OUR TEAM OF EXPERTS HELP YOU TAKE YOUR SKILLS TO THE NEXT LEVEL!

Practical X-ray Fluorescence Clinic:

26 – 30 April 2021

From theory to hands-on exercises, this course offers techniques and skills to improve lab performance. Discover the latest in cutting-edge instruments such as TXRF, hand-held devices, energy dispersive and wavelength dispersive spectrometers through live demonstrations.

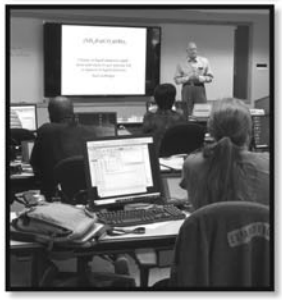
The XRF course covers the basics of X-ray spectra; instrumentation design; methods of qualitative and quantitative analysis; specimen preparation and applications for both wavelength and energy dispersive spectrometry. The course emphasizes quantitative methods, use of automated X-ray spectrometers, review of mathematical matrix correction procedures, and new developments in XRF.

Fundamentals of X-ray Powder Diffraction Clinic:

17 – 21 May 2021

For the novice with some XRD knowledge or for the experienced with an interest in the theory behind XRD, this clinic offers a strong base for increased lab performance.

The clinic covers instrumentation, specimen preparation, data acquisition and qualitative phase analysis through live demonstrations. It also covers hands-on use of personal computers for demonstration of the latest software including data mining with the Powder Diffraction File (PDF) and use of the powder diffractometer: optical arrangement, factors affecting instrumentation profile width, choice and function of divergence slit, calibration and alignment, detectors, and X-ray optics.



Advanced Methods in X-ray Powder Diffraction Clinic:

24 – 28 May 2021

For the experienced XRD scientist, this session offers enhanced analysis skills through intense problem solving, as well as an introduction to the Rietveld Method. The course emphasizes computer-based methods of data interpretation, both for qualitative and quantitative phase analysis.

The advanced course covers a wide range of topics including systematic errors, factors affecting intensities of diffraction peaks; data reduction algorithms; phase identification; advanced data mining with the PDF and its application in search/match; powder pattern indexing methods; structure solution methods; quantitative phase analysis using both reference intensity ratio (RIR) and Rietveld Method.

Rietveld Refinement & Indexing Clinic:

Fall 2021

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 along with quantitative analysis. 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.

Please visit the ICDD website for more information.

Register today at www.icdd.com/icdd-education

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.

For More Information Contact:

Eileen Jennings, Education Coordinator
Tel: 610.325.9814 **Fax:** 610.325.9823
Email: clinics@icdd.com

Location
ICDD Headquarters, 12 Campus Boulevard
Newtown Square, Pennsylvania 19073-3273 USA

ICDD® International Centre for Diffraction Data

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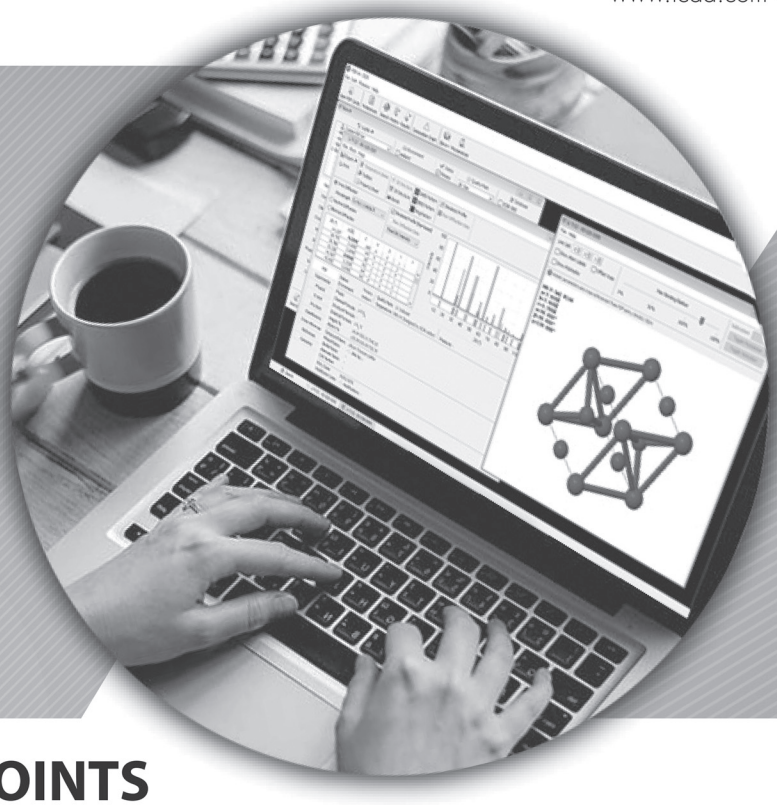
PDF-4+ 2021

Phase Identification and Quantitation

The world's largest sources of inorganic diffraction data from crystals and powders in a single database.



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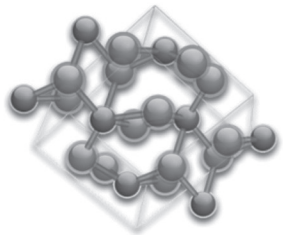

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PDF-4+ 2021 is designed to support automated quantitative analyses by providing key reference data required for these analyses. It also contains an array of tools that supplement conventional analyses, such as a full suite of data simulation programs enabling the analysis of neutron, electron, and synchrotron data, in addition to conventional X-ray data.

PDF-4+ features digitized patterns, molecular graphics, and atomic coordinates. These features incorporated into PDF-4+ enhance the ability to do quantitative analysis using third party software by any of three methods: Rietveld Analysis, Reference Intensity Ratio (RIR) Method, or Total Pattern Analysis.

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