

INTERNATIONAL CENTRE FOR DIFFRACTION DATA

THE POWDER DIFFRACTION FILE™
AND RELATED PRODUCTS

2002–2003

SERVING THE SCIENTIFIC COMMUNITY SINCE 1941



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PRICING POLICIES

The Multiyear and Site License pricing policies are discounted policies that cannot be combined together or with other discounts offered by the ICDD. Please contact ICDD's Customer Service Department for further information.

MULTIYEAR LICENSE RENEWAL POLICY

Do you forget to renew your PDF license each year? Save time and money! Purchase a multiyear license renewal and save up to 15%! The ICDD offers multiyear license renewal pricing that provides savings on yearly license renewals along with fixed pricing on the renewal for the purchased term. Should the price of PDF-2 or PDF-4/Full File increase during your multiyear license period, you will not be billed the difference.

To purchase a multiyear license, users need to purchase Release 2002 new or renew their license to Release 2002 using the regular list prices. Users may then purchase additional years for their license. The multiyear pricing is only available with the purchase of PDF-2 or PDF-4/Full File.

SITE LICENSE POLICY

The ICDD's site license policy and pricing allows for multiple copies of the PDF-2 or PDF-4/Full File databases to be licensed at a single site with attractive pricing. A single site is defined by the building where the database will be installed. Multiple users in different sites (separate buildings) need to purchase separate site licenses for each building.

Each site license allows for a maximum of 10 copies of the database. An additional site license is required after the 10th copy of the database. A site license includes the purchase of a Master License plus the purchase of Secondary Licenses (additional copies—2nd to 10th). Both the Master License and the Secondary Licenses of the database must remain current. Site licenses that do not remain current may not take advantage of the site license update prices.

To purchase or renew a site license, the ICDD requires that the Master License and all Secondary Licenses be purchased concurrently on a single purchase order. The ICDD does not offer site licensing for local servers or networks.

ICDD, the ICDD logo, and PDF are registered in the U.S. Patent and Trademark Office.

The Powder Diffraction File, Denver X-ray Conference, PCPDFWIN, and PCSIWIN are trademarks of the JCPDS—International Centre for Diffraction Data.



NEW FOR 2002

RELEASE 2002 OF THE POWDER DIFFRACTION FILE

Release 2002 of the Powder Diffraction File (PDF) boasts 148,379 powder diffraction patterns including 2,500 new experimental patterns compiled through the ICDD's Grant-in-Aid program and literature searches and 8,984 new patterns calculated using data from the ICSD and NIST. See page 3.



PDF-4/FULL FILE 2002



The ICDD introduces the PDF-4/Full File 2002, the latest edition to the PDF-4 product line. With over 136,500 entries, the Full File offers a lower cost per pattern with integrated retrieval and full pattern display software included in the base price. Awesome data mining of 31 separate diffraction and physical properties in the PDF-4 format provides the ability to do total pattern analysis with our reference database. See page 5.

PDF-4/ORGANICS

Available Winter of 2002

The ICDD, in collaboration with the Cambridge Crystallographic Data Centre (CCDC), announces the release of the world's largest powder diffraction database of organic phases, PDF-4/Organics! This new megadatabase features over 146,000 organic and organometallic phases. From the pharmaceutical researcher to the chemical engineer, PDF-4/Organics offers unparalleled data with unprecedented power to data mine 31 separate diffraction and physical property data fields! See page 6.



PHARMACEUTICAL POWDER X-RAY DIFFRACTION SYMPOSIUM



The ICDD is pleased to announce the sponsorship of PPXRD-2. This forum for discussions among scientists working in the fields of X-ray diffraction and pharmaceuticals will be held 8–12 December, 2002 in Concordville, Pennsylvania. Discussions include regulatory and patent issues, acquisition and use of X-ray powder diffraction data, powder pattern indexing, and polymorph characterization by XRPD. See page 8.

FIZ—Fachsinformationzentrum in Karlsruhe maintains the Inorganic Crystal Structure Database (ICSD).

NIST—National Institute of Standards and Technology

CCDC—Cambridge Crystallographic Data Centre



THE ICDD MISSION AND VISION

OUR VISION

To encourage the use of the PDF for phase identification of crystalline materials.

OUR MISSION

To be the world center for quality diffraction data meeting the needs of the technical community.
To promote the application of materials characterization methods in science and technology by providing a forum for the exchange of ideas and information and through publication of X-ray diffraction data.





THE POWDER DIFFRACTION FILE

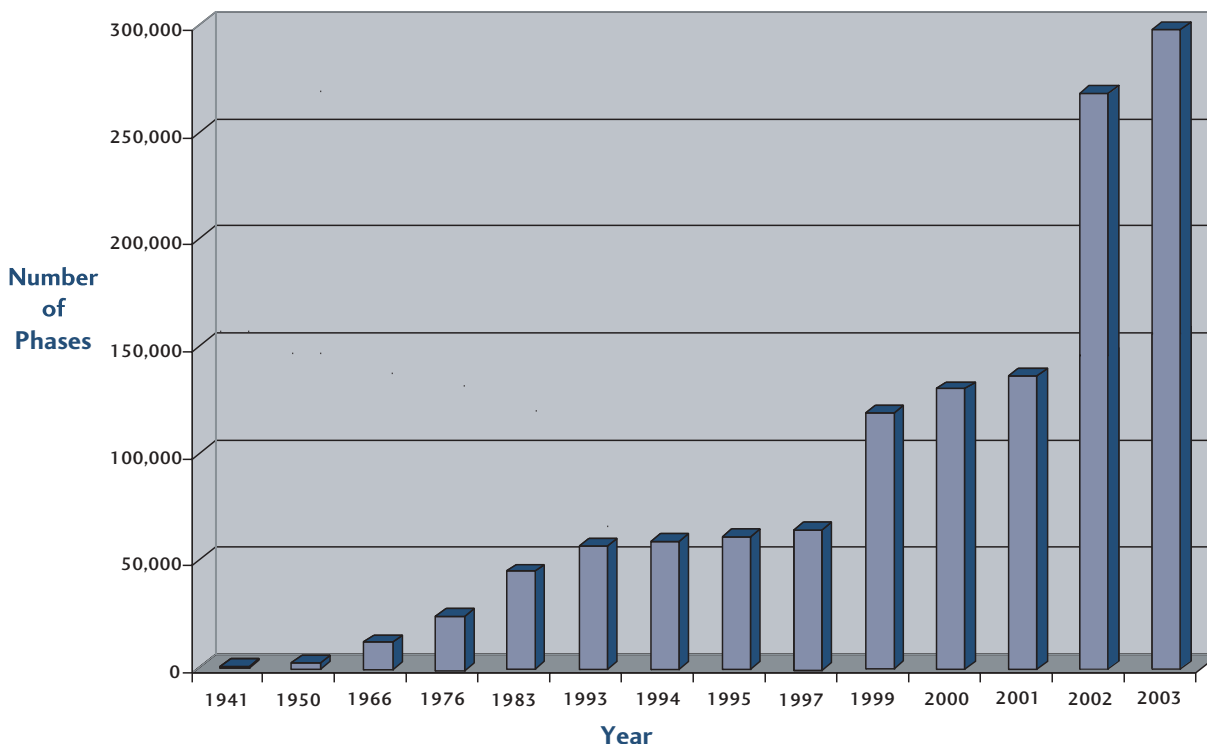
The Powder Diffraction File continues to expand with new patterns being added each year. In the last five years alone, the File has more than tripled in the number of patterns. By 2003, the File will contain close to 300,000 phases. Collaborations with FIZ, NIST and CCDC have allowed for the addition of calculated patterns generated from entries in the Inorganic Crystal Structure Database from FIZ, metal and alloy entries from NIST, and calculated organic patterns from CCDC.

Along with the data acquired from the ICDD's collaborations with FIZ, NIST, and CCDC; other data sources include scientific literature, contributions, and our Grant-in-Aid program (GiA). The GiA program produces high quality X-ray diffraction reference patterns with a

concentration on cutting edge materials including solid state materials, minerals, pharmaceuticals, ceramics, and intermetallics. Reviewed for quality and uniqueness, the patterns are edited for correctness and subfile assignment at various stages throughout the editorial process. Our four-tiered editorial process assures that the ICDD maintains the highest standards for accuracy and quality of its database, the Powder Diffraction File.

Now in our 61st year, the ICDD continues to strive to meet the needs of the scientific community. With enduring dedication to detail and scientific purpose, Release 2002 has passed through our four-tiered editorial process to assure you the highest standards for accuracy and detail.

Growth of the Powder Diffraction File



Data represents PDF-4/Full File and PDF-4/Organics





PDF-2 & SUPPORT SOFTWARE

RELEASE 2002 PDF-2

Release 2002, the latest installment of the Powder Diffraction File containing 11,494 new entries, is your most complete and up-to-date reference database featuring cutting edge materials research. Each pattern includes a table of interplanar (d) spacings, relative intensities (Int), and Miller indices. Additional information such as chemical formula, compound name, mineral name, structural formula, crystal system, physical data, experimental parameters, and references are also included when known. In addition, a quality mark has been assigned to each experimental pattern indicating an estimate of reliability by the ICDD's editors. Each entry has been indexed for subfile searches.



RELEASE 2002 HIGHLIGHTS

- 148,379 total phases
- 90,011 experimental patterns
- 54,378 patterns calculated from entries in the ICSD
- 2,500 new experimental patterns
- 8,984 new calculated patterns
- 3,931 new metal and alloy phases from NIST

Multiyear and site licensing pricing are available.

Release 2002 is contained on one CD-ROM which is compatible with PC and Macintosh® platforms. Retrieval software such as the ICDD's PCPDFWIN or developers' software must be used to convert the data from PDF-2 into readable forms. Customers using the ICDD's support software need to purchase the current versions of the support software. Check with your software supplier to confirm software compatibility when purchasing or updating to Release 2002. Retrieval software offering search/match capabilities is available from the ICDD's licensed distributors and equipment manufacturers (see pages 11 – 12).

The ICDD is offering PDF-2 users special pricing for conversion to the PDF-4 format. Please consult the price list for conversion pricing.

PCPDFWIN

PCPDFWIN, the ICDD's retrieval and display software, is designed to make PDF-2 on CD-ROM accessible in the Windows® environment. In addition, users may search the PDF database through a wide variety of filters and Boolean operators.

PCPDFWIN HIGHLIGHTS

- Display and print multiple PDF records
- Search subfile designations and names
- Search results and criteria saved to file
- Search feature by author
- Mineral classification search refinements

ICDD SUITE

ICDD SUITE combines retrieval and search indexing software into one package featuring the ICDD's **PCPDFWIN** and **PCSIWIN**. This versatile software package offers the retrieval and display software that you need along with search indexing software that you want. Search on strongest lines or largest (d) values on all the data in *Release 2002*.

ICDD SUITE HIGHLIGHTS

- PCPDFWIN (features listed above) and PCSIWIN (features listed below)
- Hanawalt and Fink searches
- Elemental and subfile filters
- Boolean operator options
- Second phase search after identification of the first phase
- Partial chemical name string searches
- ASCII files import/export

Multiyear pricing is available for the ICDD Suite when purchasing multiyear licenses for the PDF-2.





PDF-4 RELATIONAL DATABASE

PDF-4

MORE DATA

MORE SAVINGS

MORE SOFTWARE

MORE CAPABILITY

"MORE WITH PDF-4"

The PDF-4 product line offers total pattern analysis with unprecedented power to do full data mining with Boolean searches of all data fields.

MORE DATA

The data contained in the Powder Diffraction File is arranged into a series of database tables known as a relational database (RDB). The PDF-4 product line is the first step towards the ability to do total pattern analysis with our reference database of "digitized patterns" including searchable access to all physical property data fields.

MORE SAVINGS

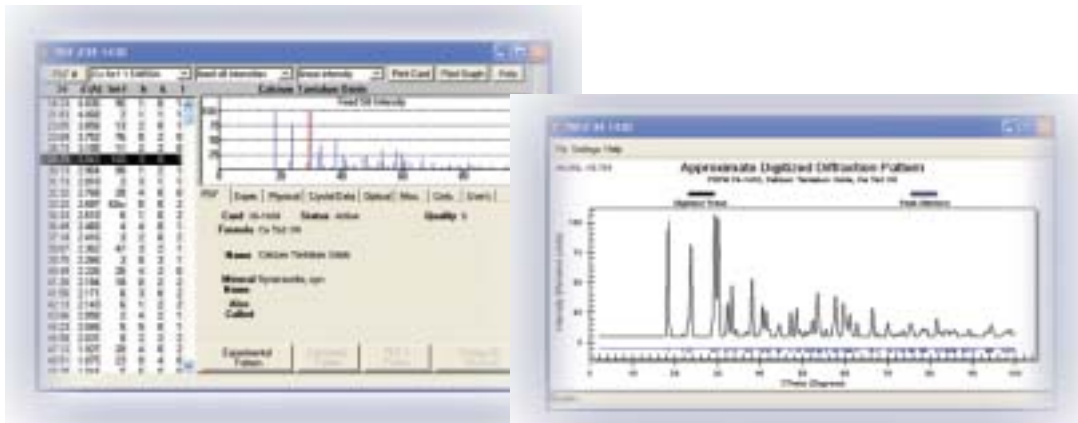
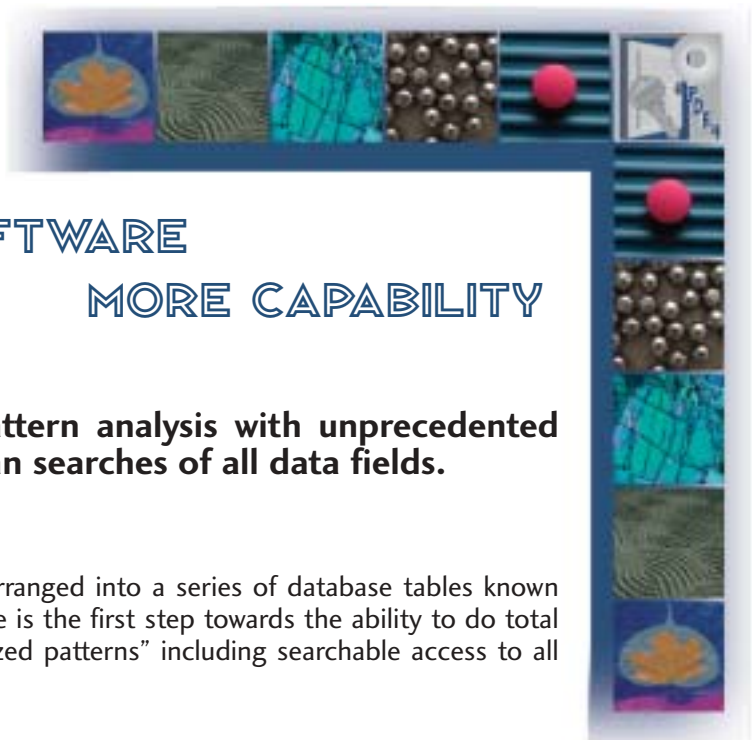
The PDF-4 product line of databases is time-locked with a yearly license renewal. Offered with a modest initial license buy-in and yearly license renewal fee, our pricing offers more data at a lower cost per pattern while maintaining the high editorial quality of the ICDD products. The PDF-4's include integrated software for even more savings!

MORE SOFTWARE

Integrated display, search and indexing software is standard with the PDF-4 product line at no extra charge. **You will need to contact your software distributor for automatic search/match software that is compatible with the PDF-4 products.**

MORE CAPABILITY

PDF-4 products give you more capability with awesome data mining on 31 separate diffraction and physical property fields. You have the capability to input experimental and instrumental factors into the total reference pattern enabling you to extract the most information out of an experimental pattern.



The ICDD licenses the use of its databases and software products. The PDF-4 product line of databases is time-locked with a yearly license renewal. The ICDD will issue a License Key with registration. Initial installation will provide a 30-day temporary license.



PDF-4 PRODUCTS

The PDF-4 product line gives unprecedented power to the end user relative to integrated data retrieval and data analysis. In a major reorganization of the Powder Diffraction File (PDF) all entries have been put into a relational database format. In this format all separate diffraction data and physical property fields, a total of 31 separate fields, are placed in individual tables. These tables can be queried and Boolean searched by a multiple tab display format and sortable column headings. Searches can be combined, through global operators, resulting in high speed data mining capability. Common query fields include element composition, formula, melting point, unit cell dimensions, color, Pearson symbol, space group, type of pattern (ambient/non-ambient), statistical quality of the pattern, mineral classification, and common name search. Entries are also classified and searched by subfiles such as minerals, metal and alloys, pharmaceuticals, organics, polymers, ceramics, corrosion products, cement materials, forensics and explosives.

The PDF-4 product line has been interfaced with powerful interactive graphics that allow the users to transform diffraction data from the historic stick patterns of d's and I's into a fully digitized pattern using "on-the-fly" calculation technology. Separate algorithms have been developed, one to transform single crystal data into a powder diffraction pattern based on fundamental principles and the other to transform experimental d's and I's into a digitized pattern based on instrumental configuration. Both algorithms have adjustable parameters so that the user can introduce instrumental or experimental effects (i.e., slit configuration, crystallite broadening) into the reference data.

The product line contains extensive bibliographic reference information and built-in indexed help information. Compare prices to other databases on a price per entry basis and you will see that you get even more value while retaining the quality of the databases through the ICDD's multistep ISO certified editorial processes.

You will need to contact your software distributor for automatic search/match software that is compatible with the PDF-4 products.

PDF-4/FULL FILE 2002

- 136,895 entries
- 56,781 entries with searchable I/I_c for quantitative analysis
- Over 49,000 calculated patterns that can be calculated on-the-fly into "total reference patterns"
- Over 87,000 experimental patterns (with fully digitized patterns)
- Subfile searches for metals & alloys, minerals, pharmaceuticals, zeolites, superconductors, detergents, pigments, ceramics, corrosion products, polymers, cement materials, forensics and explosives
- Multiyear and site licensing available



PREFERRED COMPUTER SPECIFICATIONS

PDF-4/FULL FILE

- Pentium processor, equivalent or better
- 128 MB of memory
- 3 GB of free hard disk space
- SVGA monitor with 1024x768 resolution
- Microsoft Windows 98/ME, NT 4.0, Windows 2000, or Windows XP
- Mouse
- CD-ROM/DVD-ROM drive (DVD-ROM is the preferred recommendation)
- Laser printer

PDF-4/METALS & ALLOYS AND PDF-4 MINERALS

- Same as above with the exception of disk space
- PDF-4 Minerals—50 MB free hard disk space
- PDF-4/Metals & Alloys—250 MB free hard disk space

PDF-4/METALS & ALLOYS 2002 available Winter 2002

- 36,109 entries
- 3,931 NIST entries
- Searchable prototype structure definitions for 24,679 entries
- 20,985 entries with searchable I/I_c



PDF-4/MINERALS 2002 available August 2002

- 15,817 minerals entries
- 458 distinct mineral classes
- 5,004 entries with optical property references
- 7,647 I/I_c entries



Purchase the Mineral Powder Diffraction File Data Book & Search Manual along with the first year's license for PDF-4/Minerals 2002 and save 25% (see page 10).

The ICDD licenses the use of their databases and software products. The PDF-4 product line of databases is time-locked with a yearly license renewal. The ICDD will issue a License Key with registration. Initial installation will provide a 30-day temporary license.





PDF-4/ORGANICS

PDF-4/ORGANICS 2002

Available Winter 2002

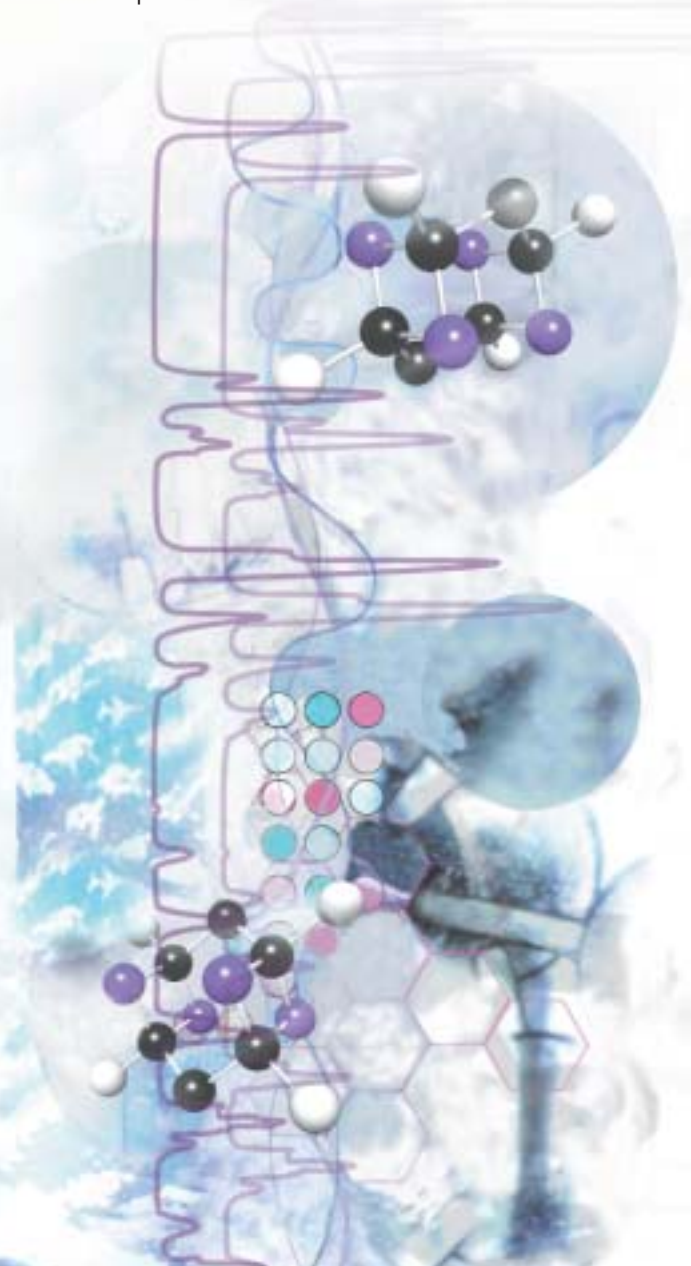
Introducing the world's largest X-ray powder diffraction database for organics! This one-of-a-kind megadatabase, from the International Centre for Diffraction Data and the Cambridge Crystallographic Data Centre, features over 146,000 organic and organometallic phases. From the pharmaceutical researcher to the chemical engineer, PDF-4/Organics offers unparalleled data with the unprecedented power to data mine 31 separate diffraction and physical property data fields!

PDF-4/ORGANICS HIGHLIGHTS

- Over 146,000 organic and organometallic phases
- 122,972 calculated patterns from single crystal data collected from the ICDD & CCDC
- More than 24,000 experimental patterns
- 124,906 entries with searchable I/I_c values for quantitative analysis
- Integrated retrieval and full pattern display software
- Awesome data-mining capability: search 31 separate diffraction and physical properties including:
 - organic functional group index
 - pharmaceutical
 - drug activity
 - polymers
 - pigments
 - forensics
 - chemical formula
 - chemical name
 - space group
 - ambient/non-ambient
 - Pearson Symbol Code
- Display of 2-dimensional chemical structure
- Full digital diffraction pattern display technology
- Built-in context-sensitive & indexed HELP documentation
- Extensive bibliographic references
- Four-tiered editorial process
- Highest standards for accuracy and quality

PREFERRED COMPUTER SPECIFICATIONS FOR PDF-4/ORGANICS

- Pentium processor, equivalent or better
- 128 MB of memory
- 4 GB of free hard disk space
- SVGA monitor with 1024x768 resolution
- Microsoft Windows 98/ME, NT 4.0, Windows 2000, or Windows XP
- Mouse
- CD-ROM/DVD-ROM drive (DVD-ROM is the preferred recommendation)
- Laser printer



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PRINTED INDEXES & SEARCH MANUALS

The ICDD's printed indexes and manuals allow for searches and identification of over 77,000 phases of experimental data based on the Powder Diffraction File (Sets 1–52). For PC users, the ICDD offers the ICDD SUITE, a PC alternative to these indexes and manuals (see page 3).

ALPHABETICAL INDEXES (INORGANIC PHASES) HIGHLIGHTS

- 56,337 phases
- Phases sorted by chemical name and chemical name fragments
- Lists three strongest lines, formula, quality mark, and PDF number for each entry
- Minerals indexed by mineralogical name and classification
- Indexes of Cements, Common Names, Explosives, Zeolites, Metals and Alloys, and Strukturbericht Symbols

HANAWALT SEARCH MANUAL (INORGANIC PHASES) HIGHLIGHTS

- 56,337 phases
- Manual identification of unknown phases using the Hanawalt Method
- Uses d-spacings of the three most intense lines for searches
- “Overlapped” data for experimental error allowance

ORGANIC & ORGANOMETALLIC PHASES HIGHLIGHTS

- 22,450 phases
- Hanawalt Index
- Alphabetical Index
- Organic Formula Index
- Common Names Index



ALTERNATE PDF PRODUCTS

PDF-1

The ICDD is retiring the PDF-1 and encourages all users of the PDF-1 to convert to the PDF-2 or PDF-4 format of the Powder Diffraction File.

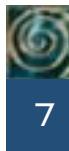
The ICDD is offering PDF-1 users special pricing for conversion to the PDF-2 and PDF-4 formats. Please consult the price list for conversion pricing.

SET 52

Set 52 of the Powder Diffraction File in book form contains PDF card images for 2,500 new experimental patterns. Previous sets are also available in book form. Sets 1 to 15, in three volumes, have been reprinted to remove deleted patterns. Sets 16 through 36 can be ordered in either inorganic or organic subfiles. In Sets 37 through 52, the inorganic and organic subfiles have been combined in one volume.

SET 52 HIGHLIGHTS

- 2,500 new experimental patterns
- d-spacings and intensities
- Quality mark
- When available:
 - chemical formula,
 - Miller Indices,
 - chemical name,
 - physical data,
 - mineral name,
 - optical data,
 - structural formula,
 - experimental conditions





SCIENTIFIC SUPPORT ACTIVITIES & PRODUCTS

ICDD CLINICS

www.icdd.com/education/clinics.htm

As part of our mission to support the dissemination of knowledge of X-ray diffraction throughout the scientific community, the ICDD sponsors several clinics in X-ray powder diffractometry and X-ray fluorescence spectrometry. Operated by the ICDD since 1990, the clinics offer training in both theoretical and practical applications.

XRD & XRF CLINICS

Learn through concise lectures and workshops on methods to improve your analysis, specimen preparation techniques, types and sources of error, components of the diffraction pattern, and qualitative phase identification.



Practical X-ray Fluorescence

28 April–2 May 2003

Session 1: Fundamentals of X-ray Powder Diffraction

2–6 June 2003

Session 2: Advanced Methods in X-ray Powder Diffraction

9–13 June 2003

PHARMACEUTICAL POWDER X-RAY DIFFRACTION SYMPOSIUM

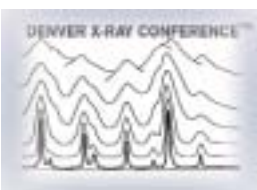
www.icdd.com/ppxrd

The ICDD will sponsor PPXRD-2, a forum for discussions among scientists working in the fields of X-ray diffraction and pharmaceuticals. Discussions include regulatory and patent issues, acquisition and use of X-ray powder diffraction data, powder pattern indexing, and polymorph characterization by XRPD.



PPXRD

8–12 DECEMBER 2002 CONCORDVILLE, PA



DENVER X-RAY CONFERENCE

www.dxcicdd.com

Hosted by the ICDD since 1998, the Conference provides a forum for the discussion of state-of-the-art techniques and indications for future developments in X-ray analysis.

DXC

4–8 AUGUST 2003 DENVER, COLORADO

EDUCATIONAL RESOURCE PACKAGE

Designed to be used individually or in combinations, the three-volume softcover set includes *Using the Powder Diffraction File*, *Education Databook*, and *Educational Indexes*.

The student workbook, *Using the Powder Diffraction File*, contains descriptive material, worked examples and problem sets covering various disciplines employed in powder diffraction pattern identification. (The *Instructor's Guide* is available upon request.) The *Education Databook* contains approximately 1,000 data sets of selected patterns from the PDF, specifically chosen for teaching purposes. The workbook covers various methods used in identification of unknown phases and refers to this subset of the Powder Diffraction File. The *Educational Indexes* volume is a combined Alphabetical, Hanawalt, and Fink Method search manual for use as part of the Educational Package.





EXPERTS' REFERENCES

PROCEEDINGS OF THE DENVER X-RAY CONFERENCE

Forty five years of history and experience in the field of X-ray analysis have been captured on CD-ROM in the cumulative volumes of *Advances in X-Ray Analysis*. Each annual volume contains that year's full proceedings (65–100 published articles) plus a cumulative searchable author and subject index from each Denver X-ray Conference proceedings since 1941. Volumes 1 to 45 contain 2,661 articles from experts in the field of X-ray analysis. A cumulative volume, Volumes 1–39, features page images of all the manuscripts from the Denver X-Ray Conference from 1957–1995.



1957–1995	Volumes 1–39	1999	Volume 43
1996	Volume 40	2000	Volume 44
1997	Volume 41	2001	Volume 45
1998	Volume 42	2002	Volume 46*

*available summer 2003

The CD-ROM functions in the Windows®, UNIX®, and Macintosh® environments. Installation includes Adobe® Acrobat® Reader with the Search Plug-In.

METHODS AND PRACTICES MANUAL

This manual is a compendium of papers and reports covering such topics as specimen preparation, use of standards, diffractometer design and alignment, cameras, and data analysis and interpretation. Produced as a loose-leaf binder to allow for additional papers and updates, the current manual includes six supplements updated through 1997.

INTRODUCTION TO X-RAY SPECTROMETRY

This self-study course consists of eight audio cassettes narrated by Dr. Ron Jenkins along with an integrated 200-page collection of illustrations, references, and sources for further study. This self-paced course allows the student to review the theory, principles, and practice of qualitative and quantitative analysis using X-ray fluorescence spectrometry.

POWDER DIFFRACTION JOURNAL

The ICDD's quarterly international journal focuses on materials characterization employing X-ray powder diffraction techniques. With feature articles covering a wide range of applications, from mineral analysis to epitactic growth of thin films to advances in application software, this journal offers a wide range of practical applications.

SUBJECT COVERAGE INCLUDES:

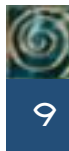
- Techniques and procedures in X-ray powder diffractometry
- Advances in instrumentation
- Study of materials including organic materials, minerals, metals, and thin film superconductors
- Publication of powder data on new materials

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Individual—U.S. & Canada	\$80	\$60	\$60
Individual—Overseas	110	85	60
Institution—Worldwide	130	105	90





SPECIALTY DATABASES

MINERAL POWDER DIFFRACTION FILE

This attractive two-volume bound set features Sets 1–50 of the Powder Diffraction File for Minerals. With 800 new patterns since the 1993 edition, the new set totals over 4,600 patterns.

Indexes include the Hanawalt, Chemical Name, Mineral Classification, and the Powder Diffraction Number Index.



Purchase the Mineral Powder Diffraction File Data Book & Search Manual along with the first year's license for PDF-4/Minerals 2002 and save 25%. You will receive the power of the PDF-4 along with the handy reference set (see page 5).

EISI: ELEMENTAL AND INTERPLANAR SPACING INDEX

Containing over 51,000 entries, this search manual is designed for phase identification using electron diffraction. The manual can be used independently or in conjunction with a computer database.

FORENSIC MATERIALS

The Data Book and Search Manual feature selected powder diffraction data for forensic materials. The set includes PDF card images of the Forensic subfile for Sets 1–32 along with a variety of search indexes.

ELECTRON DIFFRACTION DATABASE

Available on floppy disk, this database contains crystallographic and chemical information for over 87,200 crystalline materials. Each entry contains "R-spacings", space group, unit cell data, chemical formula, compound name, and literature references. Please contact the ICDD's Customer Service Department for a copy of the required license agreement.

DISTRIBUTED PRODUCTS

The following products, though related to X-ray diffraction, are not produced by the ICDD, but are distributed under agreement with their manufacturers.

THE DOW POLYMER PATTERN COLLECTION

This softcover publication offers more than 150 polymers reproduced in the form of diffractometer traces collected from the research laboratories of the Dow Chemical Company.

NIST CRYSTAL DATA FILE, RELEASE J 1997

Available on CD-ROM, this compilation contains crystallographic and chemical data on more than 200,000 entries. Each entry contains reduced cell data, volume, space group and unit cell data, chemical name and formula, and literature references. Please contact the ICDD's Customer Service Department for a copy of the required license agreement.



GRANT-IN-AID PROGRAM

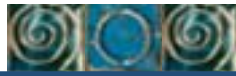
One of the ICDD's main objectives is to expand the range of reference materials by archiving or producing X-ray diffraction patterns. To further this effort, the ICDD supports a well-developed program of grants to researchers around the world to provide high-quality data and refined search techniques. Each year, the ICDD extends financial support to qualified investigators, in the form of grants-in-aid awarded on a competing proposal basis, for the preparation of reference X-ray powder diffraction data.

The duration of a Grant-in-Aid is 12 months with two cycles per year. Cycle I begins 1 April and Cycle II begins 1 October.

Benefits offered to grantees are:

- Financial support to aid current research
- Publication of pattern(s), if accepted by the Editorial Department, in the Powder Diffraction File
- Receive calibration standards—SRM 1976 or SRM 676
- Purchase certain products at reduced prices
- Receive a complimentary subscription to the *Powder Diffraction* journal for the first year
- Web-based access to the list of compounds in the ICDD master database—includes published patterns, as well as patterns still in the editorial process





VENDORS

ICDD distributors provide ICDD products throughout the world. The distributors frequently offer additional services such as state-of-the-art X-ray analysis hardware, sophisticated custom software integration, and regional support services. Please contact your local distributor for further information.

COMPANY	E-MAIL	PHONE #	FAX #	WEB
Agfa NDT Pantak Seifert GbmH & Co. KG Germany	sales@roentgenseifert.de	49.4102.807.190	49.4102.807.189	www.AgfaNDT.com
Assing SpA. Italy	strumenti@assing.it	3906.906.70504	3906.906.701	www.assing.it
Bede Scientific, Inc. UK	sales@bede.com	44.0191.332.4700	44.0191.332.4800	www.bede.co.uk
Bede Scientific, Inc. USA	sales@bede.com	303.790.8647	303.790.8648	www.bede.com
Bernd Group, Inc. USA	berndgroup@msn.com	800.346.8835	727.736.2251	www.berndgroup.com
Blake Industries, Inc USA	blake4xray@worldnet.att.net	908.233.7240	908.233.1354	
Bruker AXS USA	info@bruker-axs.com	608.276.3000	608.276.3006	www.bruker-axs.com
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China Educational Publications Import & Export Corp (CEPIEC) PR China	cepc@95777.com	86.10.6251.4078	86.10.6251.4065	
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