

2018 Powder Diffraction File™

Diffraction Data You Can Trust

ICDD databases are the only crystallographic databases in the world with quality marks and quality review processes that are ISO certified.

PDF-4+
Phase Identification and Quantitate
398,726 Entries
295,309 Atomic Coordinates

PDF-2
Phase Identification
+ Value
298,258 Entries

WebPDF-4+
Data on the Go
398,726 Entries
295,309 Atomic Coordinates

PDF-4/Organics
Solve Difficult Problems,
Get Better Results
526,126 Entries
106,369 Atomic Coordinates

PDF-4/Minerals
Comprehensive Mineral
Collection
45,497 Entries
37,210 Atomic Coordinates

**871,758
ENTRIES**

Standardized Data

More Coverage

All Data Sets Evaluated For Quality

Reviewed, Edited and Corrected Prior To Publication

Targeted For Material Identification and Characterization



www.icdd.com/products/

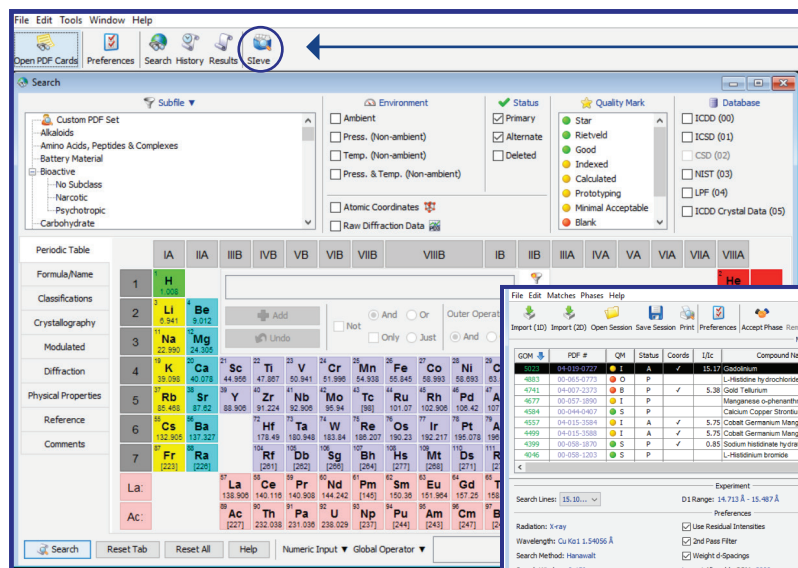




PDF-2 2018

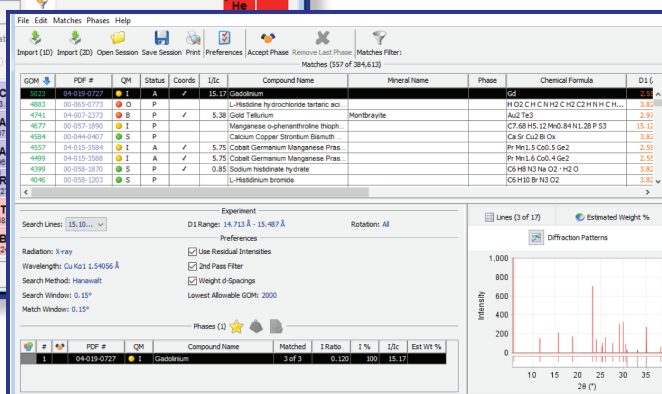
Phase Identification + Value

Featuring over 298,000 entries



- **Sieve, search indexing software, included FREE!**
- **199,610 entries have I/I_c values for quantitative analysis by Reference Intensity Ratio**
- **Rapid, accurate phase identification**
- **Cost effective license (5 year)**

New for 2018!

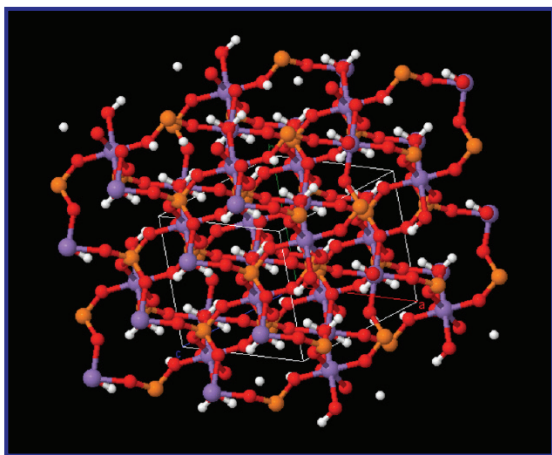


PDF-4+ 2018

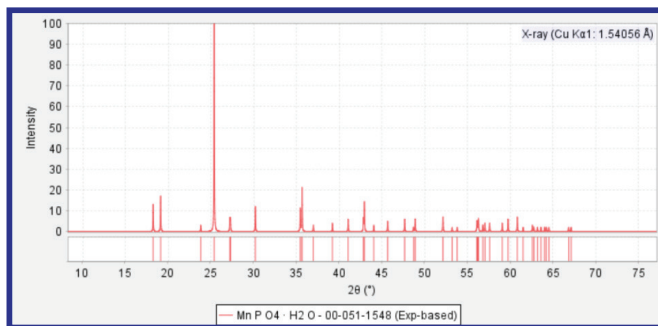
Phase Identification and Quantitate



Featuring 398,000+ entries
295,309 entries with atomic coordinates



For PDF-4+ "Data on the Go" ask ICDD about WebPDF-4+



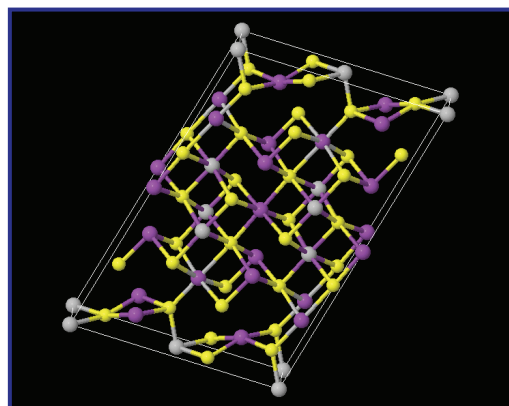
- **All entries have digital patterns for use in total pattern analysis**
- **295,309 entries with atomic coordinates**
- **298,663 entries have I/I_c values for quantitative analysis by Reference Intensity Ratio**
- **All entries are stored in a standardized format for easy search and interpretation**
- **All entries go through a rigorous editorial process to ensure quality**



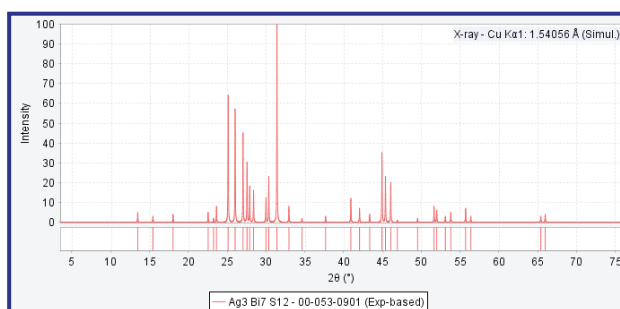
PDF-4/Minerals 2018

Comprehensive Mineral Collection

Featuring 45,000+ entries
37,210 entries with atomic coordinates



- All entries have digital patterns for use in total pattern analysis
- 37,210 entries with atomic coordinates
- 34,434 entries have I/I_c values for quantitative analysis by Reference Intensity Ratio
- Classified by IMA designations
- A subset of the PDF-4+ database with all of the features and capabilities, targeted toward minerals and mineral related compounds



PDF-4/Organics 2018

Solve Difficult Problems, Get Better Results

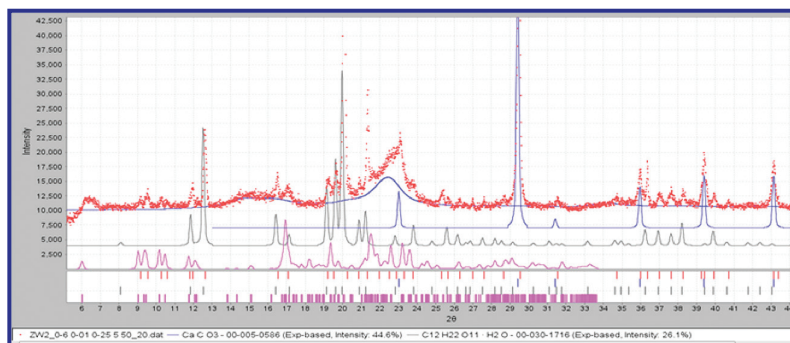


Featuring 526,000+ organic & organometallic compounds
106,369 entries with atomic coordinates

- Features the largest collection of pharmaceuticals, excipients and polymers
- Highly targeted collection with special focus on materials used in commercial and regulatory fields
- Enhanced identification for crystalline, nano and amorphous materials
- Trade names for over 9,000 bioactive/pharmaceutical entries
- Integrated data mining software
- Sleve+ search-indexing software (included as an added value)

Combines powder diffraction and crystal structure reference data

The four phase identification of the formulation of Lipitor uses references from a single crystal determination, an experimental powder pattern of cellulose β , a calculated powder pattern and pattern extracted from the patent literature. The identification required an inorganic excipient, polymer excipient and two organic compounds. A variety of reference materials and sources enabled the identification.



ICDD 2018 Product Summary

Data Entry Source	PDF-2 2018	PDF-4+ 2018 WebPDF-4+ 2018	PDF-4/ Minerals 2018	PDF-4/ Organics 2018
00- ICDD	116,613	116,613	12,140	40,154
01- FIZ	170,778	69,655	12,907	12,658
02- CCDC	0	0	0	431,359
03- NIST	10,067	2,917	213	282
04- MPDS	0	208,741	20,175	0
05- ICDD Crystal Data	800	800	62	41,673
Total No. of Data Sets	298,258	398,726	45,497	526,126
Subfile Distribution:				
Inorganic	264,876	365,291	45,441	39,355
Organic	42,478	43,515	711	515,458
New Entries	7,139	14,113	1,156	10,072
Rietveld—No. with atomic coordinates	0	295,309	37,210	106,369
Reference Intensity Ratio (RIR)— I/I_0	199,610	300,078	34,434	493,521
Experimental Digital Patterns	0	12,396	131	6,639
Pattern Fitting—Calculated Digital Patterns	0	398,726	45,497	526,126

All ICDD databases combine the power of both powder diffraction and crystal structure reference data. We are the only crystallographic database in the world with quality marks and quality review processes that are ISO certified. Each PDF database includes our integrated data mining software.

PDF-2 2018

Phase Identification + Value

- Designed for rapid, accurate phase identification
- Cost effective license (licensed for 5 years)

PDF-4+ 2018

Phase Identification and Quantitate

- Designed for phase identification and quantitative analysis
- Features digitized patterns, molecular graphics, and atomic coordinates
- Data simulation programs enables the analysis of X-ray, neutron, electron, and synchrotron data

WebPDF-4+ 2018

Data on the Go

- Provides portability to the PDF-4+ via the internet
- Equivalent to PDF-4+

Sieve
included
FREE

PDF-4/Minerals 2018

Comprehensive Mineral Collection

- The most comprehensive collection of mineral data
- 45,497 minerals and related materials
- Includes all the features of PDF-4+

PDF-4/Organics 2018

Solve Difficult Problems, Get Better Results

- Highly targeted collection of materials used in commercial and regulatory fields
- Largest collection of pharmaceuticals, excipients, and polymers
- Includes ICDD's search-indexing software, Sieve+, as an added value

All PDF-4 products are licensed for one (1) year. If you are concerned about yearly budgets, ICDD offers multi-year licenses that allow you to prepay for future renewals. These licenses are discounted and alleviate budget concerns. You must have a current release of the database in order to purchase a multi-year license.

Note:

Multi-year licenses are available for: PDF-4+, WebPDF-4+, and PDF-4/Organics.

Site licenses are available for: PDF-2, PDF-4+, WebPDF-4+, and PDF-4/Organics.

Customers may convert a current PDF-2 license to a PDF-4+ or WebPDF-4+ using renewal pricing.

Please see ICDD Product Policies



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