

ICDD 2009 PRODUCT DEVELOPMENTS: DDView+ and Sieve+

J. Blanton, D. Crane, C. Crowder, F. Needham, J. Torbet, and T. Fawcett
International Centre for Diffraction Data
Newtown Square, PA

DDView+ is ICDD's powerful data mining and viewing XRD software. It has the ability to search through the entire ICDD PDF-4+ database using numerous permutations of XRD criteria. Once the desired search patterns are achieved, DDView+ can view extensive XRD information including diffraction, physical, crystal, and bibliographic data. In addition, these patterns have advanced tools such as simulated X-ray diffraction patterns, electron diffraction patterns, and 3D structures. The power of DDView+ can be greatly extended through the use of Sieve+, ICDD's search-index software plug-in. Using highly optimized algorithms, Sieve+ can rapidly match the d-spacing lines of the user's experimental data to fit patterns in the PDF-4+ database.

To enhance the value of DDView+ and Sieve+, ICDD has incorporated many new developments for the 2009 product release. New reference searches and structure searches have been added. In addition, new display fields such as the Molecular/Formula Unit Volume have been added and existing display fields such as the Calculated Density have been updated. The structure data of the PDF cards have been improved to be more dynamic, giving the user the ability to convert the Isotropic Thermal Displacement Parameters between types B and U. Displayable "ring" diffraction patterns are now available for all entries in the database. Operations for importing experimental data have been vastly enhanced, allowing the user to manually select the background, manually select peaks, and strip K-alpha-2 peaks. Lastly, Sieve+ has been improved to allow multiple phases to be simultaneously accepted, as well as updated GOM's that are more weighted towards strong lines. These are just some of the value-added developments designed to make both DDView+ and Sieve+ more functional and powerful for 2009.