

an agreement which marks the beginning of an important relationship between the two organizations. As a result of this relationship with FIZ, the ICDD will release a significantly enhanced powder diffraction database in September of 1998.

The first enhancement, and the one potentially with the longest term impact, is the cross-correlation of the **Powder Diffraction File (PDF)** and the **Inorganic Crystal Structure Database (ICSD)**. Today, automated search/match algorithms are limited to listing the best matched phases in order of 'goodness of fit'. The automated ability to access the atomic coordinates and then generate the calculated patterns for potential phases identified in an unknown mixture opens a new era in phase ID. Least-squares refinement of the calculated patterns will permit the next generation of algorithms to test and resolve postulates concerning preferred orientation and solid solution shifting in establishing the match. With this new ability, algorithms will be able, fully automatically and unambiguously, to identify the actual phases in an unknown, when the appropriate information is in both of the databases (DBs). In addition, all of the other information potentially contained in the powder patterns can be readily extracted as part of the phase ID – *i.e.* semi-quantitative analysis from the calculated I/I_c values, concentration of components in identified solid solutions, all degrees

of preferred orientation in a specimen, the crystallite size and strain of each of the phases exhibiting line broadening *etc.* The integration of the crystal structure information with the PDF will bring on a new era of phase analysis for licensed users of both databases.

For the present, the 1998 release of the PDF will be enhanced by the addition of approximately 40 000 calculated patterns obtained from the ICSD. This enhancement does NOT require that users have an ICSD license – the calculated patterns are a permanent addition to the PDF and there will be NO INCREASE IN THE PRICE OF THE PDF. The enhanced database will follow the same format as the previous PDF-2 database. The ICDD expects the combination database to contain:

Total number of entries:	~115 000
Number of organic compounds:	~20 000
Number of inorganic compounds:	~95 000
Total number of entries with I/I_c :	~50 000
Number of unique entries with I/I_c :	~37 000

Space requirements for the data files and ICDD index files will require approximately 580 Mbytes of space.

The ICDD anticipates that this product will be distributed, in the short term, using conventional CD-ROM technol-

ogy. However, they will rapidly approach the maximum capacity of the CD-ROM. Consequently, they will be exploring the feasibility of alternative distribution media, particularly DVD technology. The ICDD will keep you informed of their progress in this area.

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Books Received

The following books have been received by the Editor. Brief and generally uncritical notices are given of works of marginal crystallographic interest; occasionally, a book of fundamental interest is included under this heading because of difficulty in finding a suitable reviewer without great delay.

J. Appl. Cryst. (1998). **31**, 112

Applied superconductivity 1997, Institute of Physics Conference Series, No. 158, Vols. 1 & 2. Edited by H. ROGALLA and D. H. A. BLANK. Pp. xi + 1712. Bristol and Philadelphia: Institute of Physics Publishing, 1997. Price £300.00, US \$495.00. ISBN 0 75 030487 1. This volume contains 422 (after review) of the 431 invited and contributed papers presented at the third biennial European conference on the title topic, held in Veldhoven, The Netherlands, 30 June–3 July 1997.