

## HIGH QUALITY POWDER DIFFRACTION PHARMACEUTICAL REFERENCE DATA

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A collaborative team has been formed to develop high quality powder diffraction reference patterns of pharmaceutical materials. The International Centre for Diffraction Data is forming a collaboration team with the Illinois Institute of Technology Particle Technology & Crystallization Center and the Argonne National Laboratory to generate high quality powder diffraction reference data. The intent is to have the ICDD collect pharmaceutical materials not currently available in the Powder Diffraction File and then have them characterized and analyzed using facilities, faculty and students at IIT, under the direction of Dr. James Kaduk. Dr. Kaduk will work with Dr. Brian Toby and his team to develop methods and protocols required to analyze these materials at the 11-BM beamline at the Advanced Photon Source of Argonne National Laboratory. This highly experienced team will interface with the editorial staff at ICDD to create high quality indexed powder diffraction reference patterns of well characterized materials. It is also anticipated that many of these pharmaceuticals will have their structures solved by ab initio techniques and refined by the Rietveld method.

This collaboration is at the early stages of development and the team is soliciting materials for investigation. We are also asking the community for suggestions on targeted systems for analysis. These suggestions will compliment a current list of commercial materials for analysis used by the ICDD for its grant programs. The collaborative effort is scheduled to be operating by mid-2010.