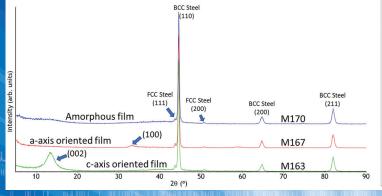
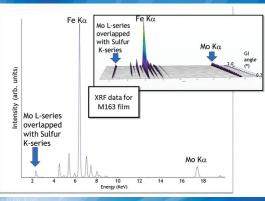
Powder Diffraction PDJ Journal of Materials Characterization





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Aims & Scope

ICDD's quarterly, and special topical issue, international journal, *Powder Diffraction*, focuses on materials characterization employing X-ray powder diffraction and related techniques. With feature articles covering a wide range of applications, from mineral analysis to epitactic growth of thin films to advances in application software and hardware, this journal offers a wide range of practical applications. ICDD, in collaboration with the Denver X-ray Conference Organizing Committee, has increased services for the subscribers of Powder Diffraction and authors of Advances in X-ray Analysis. Beginning in 2006, ICDD offered a copy of the previous year's edition of AXA to Powder Diffraction institutional subscribers who receive both print and on-line versions. This effectively doubles the number of articles annually available to Powder Diffraction subscribers and significantly increases the circulation for the authors in Advances in X-ray Analysis.

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

International Centre for Diffraction Data

The International Centre for Diffraction Data (ICDD®) is a non-profit scientific organization dedicated to collecting, editing, publishing, and distributing powder diffraction data for the identification of materials. The membership of the ICDD consists of worldwide representation from academe, government, and industry.

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On the Cover: The cover figure for this issue of *Powder Diffraction* was prepared using figures from the manuscript "Characterization of MoS₂ Films Via Simultaneous Grazing Incidence X-Ray Diffraction and Grazing Incidence X-ray Fluorescence (GIXRD/GIXRF)" by M.A. Rodrigues, *et al* of Sandia National Laboratories.

The GIXRD data provides information on the film density and grain orientation (texture) as shown on the left side. The GIXRF yields the chemical composition, shown on the right. The authors showed that combining the two sets of results enabled isolation and decoupling the film density, composition and microstructure. Such extensive combined characterization data can be used to enhance the PVD deposited MoS₂ thin films used as solid lubricants for extreme operating environments.