

# X-Ray Powder Diffraction



X-Ray Powder Diffraction is a unique method for analyzing the basic structural properties of crystalline and semi-crystalline materials. Powder diffraction patterns are characteristic of the spatial relationship of molecules in a crystalline lattice and can be used to identify the components of a material or to correlate its physical properties to solubility, strength, or appearance.

X-Ray Powder Diffraction plays an integral role in quality control, and research and development programs. Materials such as pharmaceuticals, ceramics, minerals, metals, alloys, inorganic and organic chemicals, and corrosion products may be analyzed quickly and cost effectively.

## Applications

- Qualitative Phase Identification
- Quantitative Determination
- Amorphous/Crystalline Characterization
- Polymorph Discrimination
- Impurity Analysis
- Phase Transformation Study

Qualitative identification of single- or multi-component crystalline samples is made by comparison to the JCPDS library, USP reference standards, NIST (NBS) standards, or other reference materials provided by our clients.

## Additional analytical support capabilities

- Thermogravimetric Analysis
- Differential Scanning Calorimetry
- Mass Spectrometry
- Elemental Analysis
- Infrared Analysis (FTIR)
- Graphite Furnace Atomic Absorption Spectrometry

## Electronic Data Transfer

- By fax, email or modem

For further information and a price quotation, please contact Ms. Laura Newkirk.



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