

ICP ESCA TGA
GC MS NMR XRD
GPC DSC
FTIR SEM TEM

Analytical Solutions

Do You Need Advanced X-ray Diffraction Services to Help Solve Your Difficult Research Problems?

X-ray diffraction is ideally suited to provide information regarding the composition of mixtures of crystalline materials. Each crystalline material has a unique “fingerprint” in a powder diffraction pattern that allows for rapid identification of individual components. It is also possible to provide detailed structural information about atomic arrangements, bond lengths, and bond angles, as well as macroscopic information like crystallite size and relative component concentrations.

X-ray Diffraction Capabilities:

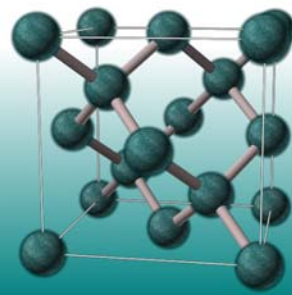
Our expertise combined with state-of-the art instrumentation is routinely applied to a wide array of complex problems involving solid analysis. In addition to rapid, accurate data acquisition and analysis on standard powder materials, our analytical chemists can provide advanced x-ray diffraction services including:

- Analysis of films as thin as ~50 nm (GI-XRD)
- Collection of powder diffraction patterns *in situ* at up to 1500 °C under a variety of atmospheres (HT-XRD)
- Selected area diffraction on spots as small as ~ 1 mm² (SA-XRD)
- Small angle x-ray scattering to determine particle size and size distribution (SAXS)

X-ray Diffraction Expertise:

Our analysts have expertise in many areas of x-ray diffraction analysis including:

- Identification of phases following reactions
- Phase quantification including percent crystallinity estimation
- Measurement of crystallite sizes of nanoparticles
- Impurity identification



Additional Analytical Capabilities:

Dow Corning offers expert analytical services to provide solutions to your testing challenges. In addition to x-ray diffraction, we offer the following capabilities:

- Molecular Spectroscopy (Raman, IR, NMR)
- Chromatography (GPC, IC, GC)
- Thermal Analysis (DSC, TGA, TMA, DMA)
- Microscopy (optical, AFM, SEM, TEM)
- Surface (XPS, contact angle, interferometry, ellipsometry)
- Mass spectrometry (MS, MALDI/GC-TOF MS, GC-MS, LC-MS, Py-GCMS)
- Elemental analysis (XRF, ICP-OES, ICP-MS)

How to contact us

For further information, to request a quote, or discuss how we can help you, please e-mail us at:

analytical.solutions@dowcorning.com

Or reach us by phone:
1-877-322-8378

Analytical Service Offerings:

Dow Corning offers expert, proven, and cost effective analytical services to provide solutions to your testing challenges. Our well-equipped, global laboratories are staffed with knowledgeable experts who have practical experience characterizing a multitude of materials and troubleshooting problems related to development, manufacturing and application performance. Whether you need a single sample analyzed or are looking to outsource all your analytical needs consider Dow Corning Analytical Solutions for quality results you can trust!

Which Dow Corning Solution Do You Need?

- Materials Analysis and Characterization
- Problem Solving
- Product Deformulation
- Method Development
- Contaminant Determination
- Contract Research
- Training and Consulting



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Want to learn more?

To find out more about the full spectrum of analytical solutions from Dow Corning, explore the services section of our website at www.dowcorning.com/analytical.

DOW CORNING

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invent the future.™*

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