X-ray Scattering at CharFac

X-Ray Diffraction (XRD) Wide-angle:
- Structural analysis of powders, solids and thin films. Phase identification and quantification.
- Variable temperature and atmosphere controlled XRD.
- Microdiffraction: analysis of sample areas with spot size ~50 µm.
- Two-dimensional XRD: texture analysis (pole figures) and stress measurements.
- High-resolution XRD: rocking curves, reflectivity, film thickness, interfacial roughness, in-plane and reciprocal space mapping.

Small-angle X-ray scattering (SAXS):
- Structural analysis of liquid crystals, microemulsions, polymers with in situ temperature control, coupled with tensile or shear testing.
- Simultaneous WAXS and SAXS: Simultaneous measurements from small-angle to wide-angle region, \( q \) range 0.003 to 2.7 Å\(^{-1}\)


Instruments available:
- Bruker D8 Discover (¼ circle Eularian cradle), D8 Advance (temp control) and D5005.
- High resolution Rigaku SmartLab XE and SE, Panalytical X’Pert (1/2 circle Eulerian cradle)
- Laue diffractometer,
- Ganesha SAXSLAB, with Eiger 1M detector and multiple sample stage accessories

For more information, please visit our website or contact Drs. Javier Garcia Barriocanal or Geoffrey Rojas