



X-ray Absorption Spectrometer (R-XAS): In this experimental setup the material under investigation is targeted with monochromatic X-ray beam. Some of the X-ray photons are absorbed by the material, and the rate of the absorption is measured versus the X-ray photon energy. Thus XAS provides the x-ray absorption coefficient of a material. Analysis of the obtained spectrum provides *precise* local structural information like bond-distances, numbers of atoms, type of neighboring atoms, and disorder in crystalline or non-crystalline systems. As compared to x-ray diffraction, this technique does not require long range translational order – it works equally well in amorphous materials, liquids, (poly)-crystalline solids.

Instrument Details: Make: RIGAKU, Japan ; Source : 3kW X-ray tube, with adjustable slits ; Monochromator: Ge (220), Si(311) ; Detectors: Gas-filled proportional counter and scintillation type ; Energy range : 5 - 10 KeV