

Multi-tasking on a CCD and MWPC three-circle X-ray Diffractometer.

Joseph Reibenspies and Nattamai Bhuvanesh, Department of Chemistry, Texas A & M University, College Station, Texas 77843

The X-ray diffractometer is a versatile tool for structure elucidation. Tasks such as single-crystal structure determination to X-ray reflectivity have been performed on X-ray diffractometers which employ various goniometers and sample stages. Normally one instrument will not fulfil all areas of research required by a large body of investigators, without minor and/or major modifications of the diffractometer; however it is possible to focus on a small range of x-ray diffraction experiments that do not require any modifications of the instrument. For these experiments the instrument is fixed and the experimental procedures and techniques are modified to accomplish the various tasks required by the investigators. In this talk we will concentrate on a few tasks, such as single-crystal, powder, frozen solutions and micro-samples, which can be undertaken successfully employing three-circle X-ray diffractometers with fixed chi sample stages.