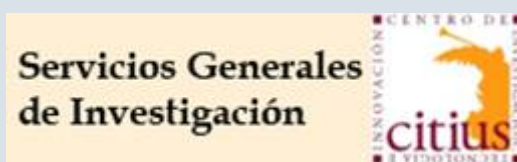




Release: 31 March 2009

Dear XRD DIFFRAC^{Plus} Users,

Bruker **AXS** – Training in English:
XRD non-ambient & DIFFRAC^{Plus}
at
*Institutos y Servicios de Investigación
CITIUS
Universidad de Sevilla
Spain*



30 March – 1 April 2009



The course is intended for Bruker AXS diffractometer's Users, scientists in solid state research, geo-sciences, crystallography, solid state physics and material science interested in polymorphism, crystallography at non-ambient conditions, and/or kinetics. The variety of materials covers organic, pharmaceutical, and inorganic compounds (oxides, zeolites, hydrides, intermetallics, catalytic systems, vegetal oils). The main focus of this course will be on the practical handling of in situ X-ray diffraction experiments. The influence of different diffractometer geometries, radiation, preparation methods, and sample properties on the data will be discussed and explored by practical exercises. Chemical reactions will be monitored both at high and low temperatures as well as under reaction conditions and controlled humidity.

Monday 30 March 09:30

Welcome and Introduction by **Pr Miguel Ángel Castro Arroyo**, Director Secretariado de Centros: presentation of the course in the context of the laboratory and presentation of the facilities.

Dr Santi Medina: presentation of the equipments with the different configurations, the general scheme of the accessories (Non ambient configuration with Göbel mirrors and VANTEC, XRK900, TTK450, SYCOS H, gasses and vacuum system, connections and refrigeration external system).

During the course, the following topics are addressed:

Measurement techniques, geometries of different in situ chambers

Which instrument should be used for which problem?

Preparation techniques

Data collection strategies

Powder diffraction at high/low temperature and under reaction conditions

Investigation of air sensitive samples

3D-data presentation

DIFFRACplus Evaluation software

Facilities: Bruker AXS D8ADVANCE powder, D8ADVANCE parallel geometry, Anton Paar TTK450 & XRK900 chambers and Asynco Humidity controller. Scintillation and Vantec-1 detectors.

The participants are encouraged to present their own measurements, raw files. Individual problems will be discussed. Software for the analysis of the sample data sets will be provided. For the practical sessions, a laptop-computer with Windows XP is recommended, with DIFFRACplus installed and with the user's own dongle (license).

Language:

The official language of the workshop is English.

Accommodation:

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End: Wednesday 1 April 16:30

Organisation

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think forward

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