Methods, IAAC, Hillebrecht

Single-crystal X-ray Diffraction *X-ray Diffraction*	Model: Unit and Room: Responsible: Further information:	*STOE IPDS2* *Inorg. Chemistry, Chem. II, basement R. -142* *Dr. M. Ade* *http://portal.uni-freiburg.de/fkchemie/Ausstattung/roentgenbeugungl*

Short Description:

X-ray diffractometer for single crystal structure determination; 2-Circle Goniometer, 340 mm diameter imaging plate area detector with 2thetamax = 77°, variable detector distance (40-200 mm); Mo-Kalpha-radiation, X-ray wave guide and linear graphite monochromator

Picture of the Equipment

Available Experiments/Techniques:

single-crystal X-ray diffraction, automatic data collection, indexing and integration prcedures; absorption correction based on crystal shape data;reciprocal lattice viewing possibility for detection of superstructures, twins and modulated structures

Special Equipment:

high temperature attachment for measurements from RT up to 1000 K

Measurements on the equipment are currently done by:	☐Students ☐Students after Introduction ☒Students after extensive training ☒Trained scientific service personal
Recent Publications, where this instrument was important (optional): Give citation	J. Am. Chem. Soc. 2009, 131, 12172; 9; J. Solid State Chem. 182 (2009) 995-1002; Chem. Eur. J. 2008, 14, 7331; Angew. Chem. 2005, 118, 172.
Typical problems that may be solved with this instrument:	*single-crystal structure determination examination of twinned crystals, modulated and superstructures*