Methods, IAAC, Janiak

57Fe-Mößbauerspectroscopy

nuclear-/resonance spectroscopy

Model:
Unit and Room:
Responsible:
Further
information:

Wissel Mößbauer-Spektrometer

nit and Room: Chemie I, Responsible: Prof. C. Röhr

Short Description:

Recoil-free nuclear resonance of gamma quants between an emitting (radioactive) 57Co source and an adsorbing Fe-containing sample (needs to be in the solid state)

Available Experiments/Techniques:

57Fe nucleus, moving source, sample at various temperatures between -100 $^{\circ}$ C up to 300 $^{\circ}$ C

Picture of the Equipment



Special Equipment:	
low and high temperature equipment for cooling or heating of the sample	
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	
Typical problems that may be solved with this instrument:	Fe oxidation state, high- or low-spin configuration, Fe coordination mode, molecular and site symmetry, Fe-ligand bonding character, Fe magnetic state