

University of Bayreuth, 95440 Bayreuth, Germany

PhD-student position

Bayreuth,
18 September 2017

Applications are sought for a PhD-student position at the Laboratory of Crystallography, University of Bayreuth, on the subject

Magnetocrystalline and structural phase transitions of FeOCl-type compounds in dependence on pressure and temperature.

Magnetic properties of frustrated magnets in highly correlated materials form an important area of research. Compounds MOCl (M = Ti, V, Cr, Fe) offer a unique opportunity to study frustrated magnetism, since orbital order of the different number of d electrons of the transition metal ions allows tuning of magnetic interactions within the single crystal structure of these isostructural layered compounds. The project aims at studying the interplay between high-pressure structural phase transitions, magnetic ordering and magnetostructural effects. Principal method of investigation will be temperature and pressure dependent diffraction studies.

The successful candidate has a university degree in physics, chemistry, crystallography, mineralogy or related relevant subjects. The project is funded by the German Science Foundation (DFG); payment is according to TV-L E13/half.

Further information can be obtained from Prof. Sander van Smaalen. Applications should be sent by E-mail to Prof. S. van Smaalen, Laboratory of Crystallography, University of Bayreuth, 95440 Bayreuth, Germany. E-mail: smash@uni-bayreuth.de. Phone: +49-921-553886. Please include scanned copies of relevant documents. Applications will be considered until the position is filled.

Sander van Smaalen