

SFB 608

Einladung zum Kolloquium

- Ort:** Universität zu Köln
II. Physikalisches Institut
Seminarraum 201
- Zeit:** 13. Januar 2010, 14:30 Uhr s.t.
- Sprecher:** **Prof. Dr. Ernst Bauer**
Institut für Festkörperphysik
TU Wien
- Thema:** Skutterudites: from ground state properties to thermoelectric applications

Cage-forming compounds such as zeolithes, fullerenes, clathrates or skutterudites have proven to be not only of scientific but also of significant technological interest. The ability of these materials to accommodate guest filler species provides a wide range of varying physical and chemical properties.

In my talk I will focus on the family of filled skutterudites; I will show which interactions are responsible for the low temperature physics and how this knowledge helps to tailor favourable thermoelectric properties. Bulk skutterudites are presently the most promising class of new thermoelectric materials which can be used for a production in an industrial scale.

Gez. Abd-Elmeguid