

SFB 608

Einladung zum Kolloquium

Ort: Universität zu Köln
II. Physikalisches Institut, Seminarraum 201

Zeit: Mittwoch, 10.09.03, 15 Uhr c.t.

Sprecher: Professor J.A. Alonso
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Thema: **High Pressure Synthesis of Transition Metal Oxides:
the example of RNiO₃ perovskites.**

Abstract:

In this talk we will review the structural, magnetic and transport properties of the RNiO₃ (R= rare earths) perovskite family, which present metal-to-insulator transitions as a function of temperature and the R size. This family has been relatively little studied due to the difficulties inherent to its high pressure synthesis. We will describe our contribution to the investigation of these interesting compounds and some derivatives, including the structural evolution across the MI transition, the charge disproportionation observed in the insulating regime for the heavier members of the series, or the structural behaviour under pressure.

Gez. Prof. M. Abd-Elmeguid