

Bachelor thesis/Master thesis

Synthesis of Ni₂MnGa-based alloys and characterization of the electronic phase transition

Ni₂MnGa and alloys based on it continue to be the subject of current research as a model system for magnetic martensites and due to their wide range of applications as important magnetic shape memory alloys. Temperature-resolved electronic transport measurements contribute to a better understanding of the martensitic phase transition. The aim of this work is to characterize the phase transition using the electronic transport coefficients resistance, Seebeck and Hall coefficient.



Tasks

- Synthesis of several Ni₂MnGa-based alloys
- Sample preparation
- Temperature-resolved measurement of the electronic transport coefficients on the cryostat

Requirements

- Degree in engineering or physics
- Careful and thorough way of working
- Basic knowledge of data processing
- Enjoy experimental work

Contact us

- Dr. Alexander Kunzmann alexander.kunzmann@uni-due.de

Start

- Immediately or by arrangement

