

Computational Materials Science Lab at Institute of Mineral Engineering (GHI), Division of Materials Science and Engineering, Faculty of Georesources and Materials Engineering, RWTH Aachen University has two openings for

1 PhD Student (available immediately) and 1 Postdoc Position (starting from Dec. 2015) in Nano-scale Heat Transfer

Job Description and Qualifications

The **computational** research involved in this position is **phonon transport** at the interface of nanomaterials and energy nanotechnology. The potential topics include, but not limited to, **thermoelectrics, thermal management, phase change materials.**

The candidate for the **postdoc (PhD student)** position should have a **PhD (master) Degree** in Physics or Engineering (preferably Mechanical Engineering or Materials Science and Engineering). Background in atomistic simulation such as DFT / *ab initio* calculations or classical molecular dynamics, or multi-scale modeling is essential. The candidate should be capable of calculating phonon transport of materials. Previous experiences of modeling using packages, including but not limited to VASP, CASTEP, SIESTA, QUANTUMESPRESSO, CPMD, CP-PAW, and LAMMPS (MD), are strong advantages. The salary will be competitive, according to the standard policy and salary rates of RWTH Aachen University. The initial contract for the postdoc position will be one year and can be extended upon mutual agreement. The PhD student position is three (3) years. Both positions are full time (100%).

Candidates should have the ability to think creatively with high motivation and have an excellent English written ability and fluent communication in general. Knowledge of German is a plus but **not** required.

Interested candidates may send a complete CV including list of publications and a list of at least two (2) references with contact information to (all application materials must be in **English**):

Prof. Dr.-Ing Ming Hu

Institute of Mineral Engineering (GHI)

Division of Materials Science and Engineering

Faculty of Georesources and Materials Engineering

Joint with Aachen Institute for Advanced Study in Computational Engineering Science (AICES)

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Profile of the principle investigator: <https://www.ghi.rwth-aachen.de/simulation>