

Research assistant (m/f/d)

In the Department of Foundry Technology at the Institute of Metallurgy at Clausthal University of Technology, there is as soon as possible a position available as

Research assistant (m/f/d)
(provided that the requirements EG 13 TV-L are met)

initially to be filled full-time (100 %) for a period of 2 years. The position is generally suitable for part-time work. As part of the activity, you have the opportunity to do a doctorate at Clausthal University of Technology. Place of work is Clausthal-Zellerfeld.

Your task is to work on the DFG project *Mechanical characterization and microstructure modelling of intermetallic layers thicknesses in aluminium/steel hybrids*. Further information about the project can be found [here](#).

Project Overview:

This project focuses on the micromechanical and microstructural properties of aluminium/steel hybrid cylinders. Utilizing both experimental and simulation methods, the project aims to better understand the complex interactions between process parameters, interface microstructures, and the mechanical properties of the hybrid materials. This project is a cooperation with the Chair of Metal Forming and Casting of the Technical University of Munich.

Role Overview:

We are looking for a highly motivated Research Associate to join our multidisciplinary team. The selected candidate will primarily be responsible for:

- Designing and executing diffusion reaction experiments to study the time and temperature effects on the kinetic growth of intermetallic layers.
- Developing models to predict the intermetallic layers thickness during compound casting process.
- Collaborating closely with project partners to ensure a coherent and comprehensive approach to the project.

Your profile:

- Successful completion of a degree (M.Sc., diploma or equivalent) in Materials Science, Mechanical Engineering, Metallurgy, or a related field
- Experience with model development and implementation
- Experience with C++ in Open Foam environment is an advantage
- Independent, structured way of working and quick comprehension
- Enjoy interdisciplinary application problems and exchanging ideas with other scientists
- Good written and spoken English knowledge

We offer:

- Exciting topics and participation in top international research
- A family-friendly and collegial working environment in committed teams as well as varied areas of responsibility
- The opportunity to develop innovative approaches and solutions independently
- The possibility of pursuing a doctorate in engineering

The salary complies with the labour contract for the public sector (TV-L) and includes an annual special payment at the year-end. In addition, we offer separate supplementary benefits as a company pension (VBL).

TU Clausthal supports the compatibility of family and profession by means of flexible part-time work schemes within the scope of the official feasibilities and is member of the academic association "Familie in der Hochschule".

Gender equality with its facets of equal opportunities, diversity and family-friendliness is an important concern at Clausthal University of Technology. People with disabilities are given priority if they are suitably qualified. Applications from people of all nationalities are welcome

Please send your application with the usual documents by 27.11.2023 (cover letter, CV, certificates) by email (in a single PDF file) to **Prof. Dr. Babette Tonn**

Email: babette.tonn@tu-clausthal.de

If you have any further inquiries, we will be happy to address them.

We look forward to seeing you!

Please note our information on data protection in the application process: <https://www.tu-clausthal.de/universitaet/karriere-ausbildung/stellenangebote/hinweise-zum-datenschutz-im-bewerbungsverfahren>.

Application costs cannot be reimbursed. The application documents will be destroyed after completion of the selection process in compliance with the legal provisions.