

Research Assistant (m/f/d) with the perspective of a doctorate - "Effective thermal conductivity of dispersions with a continuous liquid phase"

Department Chemie- und Bioingenieurwesen (CBI), Erlangen, TV-L E 13, Vollzeit, Befristete Anstellung, Bewerbungsschluss: 01.10.2024

Ihre Aufgaben

- Experimental determination of the effective thermal conductivity of dispersions with a continuous liquid phase (e.g., nanofluids, microemulsions) with a stationary parallel-plate instrument
- Experimental characterization of the dispersions regarding particle size and shape by using dynamic light scattering (DLS)
- Study of the influence of parameters such as the thermal conductivity of the dispersed and the continuous phase as well as the morphology and stability of the particles
- Probing the transferability of findings for systems with solid particles to those with a liquid dispersed phase
- Development of a generalized prediction method for the effective thermal conductivity of dispersions with a continuous liquid phase
- Close collaboration with the other members of the institute
- Co-organization of exercises, seminars, and practical courses as well as supervision of students in the context of theses

Ihr Profil

Notwendige Qualifikationen:

- Above-average degree in the field of engineering or natural sciences
- Enthusiasm for independent scientific work
- Strong interests in thermophysical property research as well as experimental and theoretical work
- High level of commitment, ability to work in a team, and reliability
- · Good to very good knowledge of English

Stellenzusatz

Befristetes Forschungsvorhaben

We offer a multidisciplinary and international working environment with excellent potential for scientific and personal development.

Please send your application documents in the form of a pdf file to Prof. Dr.-Ing. habil. Andreas Paul



<u>Fröba</u>

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