OTTO VON GUERICKE UNIVERSITÄT MAGDEBURG

Vacancy Notice 346/2019

The Otto von Guericke University Magdeburg (OVGU) is an internationally oriented and regionally networked university with a strong research profile.

The Institute of Fluid Dynamics and Thermodynamics of the Faculty of Process and Systems Engineering seeks to fill the following vacancy:

Doctoral student in the development of luminescence micro-thermometers

Salary Scale:	Date commencing:	Fixed term until:	Contract status:
13 TV-L	January 2020	36 month	100 %

The Experimental Thermofluids group at the Institute of Fluid Dynamics and Thermodynamics develops and applies advanced optical measurement techniques for the study of phenomena coupling heat transfer and fluid dynamics. It has a recognized expertise in the use of photoluminescent particles (thermographic phosphors) for thermometry in fluids.

The doctoral student will be hired in the framework of a 3-year DFG-funded project in cooperation with the Institute of Low Temperature and Structure Research of the Polish Academy of Science (PNAS) in Wroclaw and entitled "Sensitization of lanthanide-based phosphors by transition metals for high-brightness tunable thermometers" (SensiTherm). The PhD student will be part of an international project team led by Jun.-Prof. Benoît Fond on the German side, and Dr.-hab. Lukasz Marciniak on the Polish side and including two other PhD students in Wroclaw.

Main responsibilities:

- To design, set-up and carry out experiments to characterise the luminescence properties of phosphors particles under various conditions (temperature, excitation power density...)
- To analyse the acquired data to describe the dynamics of the luminescence process
- To demonstrate new thermometric capabilities in fluid experiments
- To write scientific reports, journal publications and research proposals

Requirements for the position:

- Master degree or equivalent in engineering (mechanical or chemical) or natural sciences (physics, chemistry, materials) obtained with distinctions
- Prior research experience with optical systems, photoluminescence, data processing and sensors will be appreciated
- Problem-solving attitude; Aptitude and enthusiasm for interdisciplinary research; Ability to cooperate in an international project team
- Independence and creativity in the execution of the research project
- Very good written and spoken skills in the English language

For further information about the position and the research project, please contact Jun-Prof. Benoît Fond (Tel. +49 391 67-58565, E-Mail: benoit.fond@ovgu.de).

Applications from disabled persons will be given priority in the case of equal suitability, ability and professional expertise. The Otto von Guericke University aims to increase the proportion of women researchers within the university and specifically encourages women to apply.

Please send your application including CV, relevant certificates and a cover letter stating your motivation for your application using quoting reference number **346/2019** by **November 30th, 2019 (date of receipt of application)** to the address below:

www.ovgu.de

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