Anbieter

Universität  
Ruhr-Universität Bochum

Institut / Einrichtung  
Lehrstuhl für Allgemeine Elektrotechnik und Plasmatechnik (AEPT)

Kategorie  
Wissenschaftl. Mitarbeiter(in)

Angebot

Titel  
Doctoral candidate (m/f/d) 3 years 29,87 h/w

Einsatzort  
Universitätsstraße 150  
44801 Bochum  
Deutschland

Beschreibung

The Ruhr-Universität Bochum is one of the leading research universities. The university draws its strengths from both the diversity and the proximity of scientific and engineering disciplines on a single, coherent campus. This highly dynamic setting enables students and researchers to work across traditional boundaries of academic subjects and faculties.

The Institute of Electrical Engineering and Plasma Technology (AEPT) of the Faculty for Electrical Engineering and Information Technology at the Ruhr-University Bochum is seeking a doctoral candidate (m/f/d) in the area of Biomedical Plasma Technology. The research undertaken by the successful applicant will focus on the development and characterization of plasma sources for use in biomedical applications as part of a third party funded project. The duration of the post is 3 years at 29,87 h/w.

Low-temperature plasmas are an emerging biomedical technology with potential for a wide range of applications from chronic wound treatment to bacterial decontamination of surfaces. These applications are motivated by the unique physical and chemical properties of these plasmas, meaning biological materials can be treated at ambient temperature by a combination of reactive oxygen and nitrogen species, ions, photons and electric fields. In order to accelerate applications of plasmas in biomedicine, a deeper understanding of how these plasmas interact with cells and biomolecules is needed. This work requires a strongly interdisciplinary approach and the successful candidate is expected to work closely with others from a range of disciplines (plasma science and engineering, biology, chemistry, biomedicine) to advance the field.

What the position offers:

- Opportunity to work in an application-focused and highly interdisciplinary environment
- Collaboration with a range of leading experts in the areas of plasma science and plasma-cell interactions both in Germany and internationally
- Opportunities to present research at seminars and conferences
- Personal and professional development opportunities through various Institute, Faculty and University level initiatives, for example, the RUB Research School

The position is third party funded and does not have any formal teaching duties attached.

Your tasks:

- Plan, conduct, and analyze experiments and numerical simulations to characterize plasma sources relevant for biomedical applications
• Facilitate collaborations with internal and external partners through coordination of experiments, particularly in the area of plasma-cell interactions.

Travel expenses for interviews cannot be refunded.

At Ruhr-Universität Bochum, we wish to promote careers of women in areas in which they are underrepresented, and we would therefore like to encourage female candidates to send us their applications. Applications by suitable candidates with severe disabilities and other applicants with equal legal status are likewise most welcome.

Anforderungsprofil

Essential

• MSc degree with strong physics, chemistry and/or engineering components.
• Experience of research project work in the area of experimental low-temperature plasma science
• Very good English skills (written and oral)

Any of the following would be advantageous

• Practical experience and/or knowledge of quantitative spectroscopic methods
• Experience in liquid chemistry or use of liquid-phase measurement techniques
• Experience working with microorganisms
• Experience in using numerical simulations
• Experience with high-voltage circuits
• Experience with interdisciplinary collaborations

Vergütung

E12/13

Art der Beschäftigung

Teilzeit

Zeitraum der Beschäftigung

3 Jahre

Bewerbungsfristende


Kontakt

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