Job Advertisement

The Leibniz-IPHT is a university independent research institute with close connection to the Friedrich-Schiller-University Jena and member of the Leibniz association.

The Leibniz Institute of Photonics Technology (Leibniz-IPHT) offers within the Innovative Training Network MONPLAS “The training of early stage researchers for the development of technologies to MONitor concentrations of micro and nanoPLAStics in water for their presence, uptake and threat to animal and human life” (Marie Skłodowska-Curie Innovative Training Network (MSCA-ITN-EID) of the European Commission) the position (100%) of an

Early Stage Researcher (PhD candidate) (f/m/d)

in the field of Optical Spectroscopy / Imaging / Analysis with the research topic

“Multispectral imaging flow cytometry for assessment of microplastic particles”

The position should be filled between 1 March 2020 (the earliest) until 30 June 2020 (at the latest).

Funding of the position is available for 3 years and comprises an attractive training curriculum with international partners.

Objectives of the research project:

In your project you will develop and apply a multispectral imaging flow cytometry (mIFC) approach to assess microplastic particles in the size range between 2 and 40 µm based on their geometrical and colorimetric properties. Different affinities of plastic materials to dye molecules will be utilized to discriminate between microplastic materials. The plastics material, size distribution and frequency of microplastic particles will be detected and analyzed. Combined with appropriate separation and enrichment techniques mIFC can assess microplastics from various matrices such as seawater, sediments, food, drinks, plants and tissues.

Be part of the European Doctorate Network IMAGE-IN MONPLAS:

MONPLAS is a highly multi/inter-disciplinary doctoral-level training network that brings together expertise from different sectors to enhance detection methods for micro and nanoplastics in water (and beyond) and therefore to map their origins and potential public health threat. The breadth of technology coupled with the innovative training package, where ESRs will be exposed to industrial R&D environments, will enable the next generation of scientists to drive research of micro and nanoplastics into the wider environment. Consisting of some of Europe’s greatest experts in their fields MONPLAS will provide tomorrow’s talent with the skills and knowledge to tackle possibly one of mankind’s greatest threats to its existence whilst they jointly develop the technologies for the industrial instrument in collaboration with end-users and equipment manufacturers. The positions are for 36 months and expected to begin in July 2020. MONPLAS ESRs will have access to state of art equipment and expertise of the academic and industrial beneficiaries and partners. The network consists of Aston University (Birmingham, UK); KTH (Stockholm, Sweden); Bruker Optik GmbH (Ettingen, Germany); Stichting Wageningen Research (Wageningen, Netherlands), Vrije Universiteit Brussel (Brussels, Belgium); Leibniz-Institut für Photonische Technologien e.v (Jena, Germany); Aalborg Universitet (Aalborg, Denmark); The Queen’s University of Belfast (Belfast, UK), Renishaw, Wessling and others.

Requirements:

We seek an excellent, open-minded and team-spirited PhD candidate with a background in spectroscopy, imaging, physics, and microfluidics or similar. The candidate should have good knowledge and interest in both experimental and theoretical work. Interest in interdisciplinary research in the field of microfluidics, spectroscopy/imaging and data analysis is expected. The interest to use and advance your programming skills is necessary as you need to perform advanced data processing. Fluent communication skills in English, both spoken and written are required.

Candidates will be required to meet the Marie Skłodowska-Curie Early-Stage Researcher eligibility criteria: (http://ec.europa.eu/research/mariecurieactions/). In particular, at the time of appointment candidates must have had less than four years full-time equivalent research experience and must not have already obtained a PhD. Additionally, they must not have resided in Germany for more than 12 months in the three years immediately before the appointment.
We offer:
The successful candidate will be part of an excellent international research team and benefit from the scientific and complementary training programme of the EU-funded Innovative Training Network (ITN) MONPLAS. We offer highly competitive and attractive salaries according to regulations of Marie Skłodowska-Curie Actions, plus mobility and family allowances as applicable. Further information can be found: https://www.research-in-germany.org/en/research-funding/funding-programmes/eu-marie-sk-odowska-curie-innovative-training-networks.html

Your host institution and PhD enrolment: Leibniz-Institut of Photonic Technology and Jena University

Your main supervisor: Dr Thomas Henkel, thomas.henkel@leibniz-ipht.de

Mentorship by an industrial participant will achieve cross-sectoral mentoring broadening your perspective and enhancing your employability. Therefore additional mentoring your PhD project will: Dr Gabor Bordos (Wessling).

Your secondments will include 3 months at Aalborg University, 3 months at Renishaw.

As an equal opportunity employer Leibniz-IPHT is committed to increase the percentage of female scientists and therefore especially encourages them to apply.

Informal enquiries may be addressed to Dr. Thomas Henkel at thomas.henkel@leibniz-ipht.de

The application must be accompanied with the following documents in PDF format:
- letter of motivation,
- curriculum vitae of at most 3 pages,
- transcripts of records from University/University College and copy of your degree
- list of publications (if available),
- two written recommendation letters (e.g. one by your Master thesis supervisor) and the referees contact details

The positions will be filled as soon as a perfect candidate has been found. Please send your application electronically as pdf file via mail until 29th February 2020 to:

Leibniz-Institute of Photonic Technology Jena
Human Resources
Albert-Einstein-Straße 9, 07745 Jena, Germany
e-mail: Personal_Abtl@leibniz-ipht.de
Code: 2019_38

Note on Data protection:
By submitting your application and the accompanying documents, you consent to the processing of your personal data in connection with the application process. You may revoke this consent in writing or electronically at any time without giving reasons. Please note, however, that a revocation of consent means that any application in progress can no longer be considered.