

Job vacancy No. 040-2022

The Leibniz Institute of Polymer Research Dresden is a non-university research institute and a member of the Leibniz Association. It has gained world-wide reputation for its application-oriented basic research on new polymer materials for future technologies, e.g. in the fields of energy, mobility, health, sustainability, and communication, and it supports the transfer of research results into application. The research work is carried out on the basis of state-of-the-art technical equipment in interdisciplinary cooperation between the five institutes of the IPF and embedded in numerous national and international cooperations. The IPF promotes young scientists and is certified as a family-friendly employer according to the Audit berufundfamilie®. The institute currently employs around 500 persons. Further information at www.ipfdd.de.

The research group „Advanced interface design and interphase characterization of polymer materials” offers a position at the IPF-Institut of Polymer Materials, Department Processing Technology as

PhD Student (m/f/x) / Research Associate (subject to funding approval).

The position is integrated within the EU MEra.net - project InsBIOration (project details at: <https://m-era.net/joint-calls/joint-call-2021>) with 9 partners, associated partners in international and interdisciplinary research tasks. The project aims at the formation of bioinspired films based on dopamine and analogues for surface modification of plastics for decorative and functional metallization. The modifications can be complemented by vacuum-based surface techniques. In addition to the development of suitable technological principles for plastic metallization, process developments for the dissolution of plastic-metal composites for remanufacturing are being pursued. In this context, the investigation of biodegradability plays an important role.

Task description

Prerequisite for all investigations of bio-based films is the establishment of an efficient analytical system, which is particularly focused on surface-enhancing methods such as SEIRA and SERS or the combination of methods and developments and their complex evaluation; preparation and analysis of hybrid materials of polymeric substrates and metal layers (PVD and electroless metal deposition); parameter variations of film deposition of biobased dopamine and analogues by different processes; chemical and physical post-treatments for film stabilization; characterization of molecular properties, interaction mechanisms and development of adapted analytical methods for film characterization.

Requirements

Excellent Master of Sciences or diploma in chemistry, biochemistry, food chemistry, chemical engineering, plastics engineering, surface engineering, physics or materials sciences; very good communication skills (verbal and written in English), act in an international and diverse environment; very good performance in project and self-organization, independent, target- and solution-driven work attitude, strong analytic and problem-solving skills, creativity

Salary: According to German pay grade TV-L EG 13

Terms: 70% of the full-time weekly hours

Starting date: June 2022

Duration: 36 month

The IPF Dresden strives for gender equality and diversity in all fields. Applications by people with severe disabilities will be given preference if they are equally qualified. Moreover, as the IPF would like to raise the proportion of women in fields where they are underrepresented, women in particular are invited to apply.

The personal data collected by the IPF relating to your application, as well as the evaluation thereof shall be processed exclusively for purposes of the application process on the basis of contractual measures under Art. 6 (1b) GDPR. These data shall not be transferred to third parties. Recipients shall comprise the employees responsible, the Works Council as well as, where applicable, the representative body for disabled employees and the equal opportunities officers of the IPF. Your application details provided to us shall be deleted by us 6 months after the end of the application process, i.e. either after the job advertised has been filled, or after we have decided not to fill the vacancy after all. For questions under data protection law and for exercising your rights, please contact: d.atenschutz@ipfdd.de (data protection officer). You have the right to complain to the supervisory authority. Expenses for the interview participation will not be refunded.

The desire to work across disciplines is essential. If you are motivated by these challenges, please submit your excellent record of accomplishment with research interests, full CV, a detailed description of hands-on training in experimental and characterization methods to the IPF Human Resources Department. **Don't forget to indicate the number of the Job vacancy.**

For further information please contact Dr. C. Zimmerer (eMail: zimmerer@ipfdd.de bzw. +49 351 4658 782).

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