Center for Advancing Electronics Dresden

For the Graphene Flagship Project “Graphene-based Disruptive Technologies” Graphene Core3 the Chair of Molecular Functional Materials offers the following project position as:

Research Associate / Postdoc (m/f/x)
(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

Research area: Development of graphene based materials with focus on the area “Surfaces, Foams and Coatings” such as graphene based polymer composite, conductive inks and anticorrosion coatings.

Investigators: Prof. Dr. Xinliang Feng

research path: Organic/Polymer Path

Terms: 65% of the fulltime weekly hours, starting as soon as possible, until September 30, 2023, with the possibility of extension subject to further third-party funded projects. The period of employment is governed by § 2 (2) the Fixed-Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG).

Position and Requirements

The Graphene Flagship is, along with the Human Brain Project, the first of the European Commission's Future and Emerging Technology (FET) Flagships, whose mission is to address the big scientific and technological challenges of the age through long-term, multidisciplinary research and development efforts. In particular, it is tasked with bringing together academic and industrial researchers to take graphene from the realm of academic laboratories into European society in the space of ten years, thus generating economic growth, new jobs and new opportunities.

Within this European project, the Chair of Molecular Functional Materials is focused on the synthesis and production of Graphene and other 2D nanomaterials which emerge as outstanding candidates for a great number of electronic applications. The goal of this research is to synthesize graphene molecules and 2D materials bearing electronic functions.

The successful candidates will be responsible for: Design and synthesis of graphene molecules and 2D materials with novel edge structures; production and functionalization of graphene and 2D materials; formulation of graphene and 2D materials into nanocomposites with added functionality; development and preparation of graphene and 2D material dispersions and inks and application research in the field of environmental coating and energy storage; organizational tasks within the Flagship project. Close collaboration with industries and working with the domain experts to understand the existing project portfolio and scouting for promising technologies that can be further developed for commercial adoption including the technologies and products developed by the candidate in TU Dresden Labs.

We aim at attracting the best talent in the respective research fields and expect the following: an outstanding university and a PhD degree in organic chemistry, polymer chemistry or similar; previous experience in graphene, 2D materials and polymer composite preparation; experience on securing funding for projects/programs of technologies and any associated IPR; very good interpersonal and communication skills; in particular, the ability to effectively work in collaborative research efforts; an independent, target- and solution-driven work attitude; inter- and
multidisciplinary thinking; strong motivation and interest to join one of the most ambitious interdisciplinary research centers; fluency in English - written and oral.

**What we offer**

You will join a team of enthusiastic scientists who pursue creatively their individual research agenda inspired by the research center's innovative approach and support. Your research will be fostered by the cfaed philosophy to promote young researchers, which includes: access to state of the art research of leading academic institutes; promotion of gender equality and family-friendly work environment.

Informal enquiries can be submitted to Prof. Dr. Xinliang Feng, Tel +49 (351) 463 43250; Email: xinliang.feng@tu-dresden.de.

Applications from women are particularly welcome. The same applies to people with disabilities.

**Application Procedure**

Your application (**in English only**) should include: motivation letter, CV, copy of degree certificate and proof of English language skills. Complete applications should be submitted preferably via the TU Dresden SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf document quoting the reference CORE3-2021-11 in the subject header to office-feng@mailbox.tu-dresden.de or by mail to: TU Dresden, cfaed, Professur für Molekulare Funktionsmaterialien, Prof. Dr. Xinliang Feng, Helmholtzstr. 10, 01069 Dresden. The closing date for applications is **December 2, 2021** (stamped arrival date of the university central mail service applies). Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

**Reference to data protection:** Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: [https://tu-dresden.de/karriere/datenschutzhinweis](https://tu-dresden.de/karriere/datenschutzhinweis)

**About cfaed**

*cfaed is a Central Academic Unit of TU Dresden and brings together 300 researchers from the university and 10 other research institutes in the areas of Electrical and Computer Engineering, Computer Science, Materials Science, Physics, Chemistry, Biology, and Mathematics. cfaed addresses the advancement of electronic information processing systems through exploring new technologies which overcome the limits of today's predominant CMOS technology.* [www.cfaed.tu-dresden.de](http://www.cfaed.tu-dresden.de)

**TU Dresden**

*The TU Dresden is among the top universities in Germany and Europe and one of the eleven German universities that were identified as an 'elite university' in June 2019. As a modern full-status university with 17 faculties it offers a wide academic range making it one of a very few in Germany.*