Job vacancy No. 041-2021

The IPF-Institute of Theory of Polymers is looking for a

Postdoc (m/f/d), 40 hours/week, on

Theory and modeling of field-controllable functional polymer materials.

The Leibniz Institute of Polymer Research Dresden (IPF) is one of the largest polymer research facilities in Germany. As an institute of the Leibniz Association, the IPF is committed to carrying out application-oriented basic research and receives its base funding in equal parts from the federal and state governments. The institution granting the Ph.D. degree is the Technical University (TU) Dresden.

Description:

The Institute “Theory of Polymers” at the IPF Dresden is seeking for a postdoctoral researcher in the field of material theory and modeling. Our current research is focused on functional polymer materials, whose behavior can be remotely controlled by light or magnetic fields. Regarding the former, azobenzene polymers are of paramount interest as they can be easily deformed by polarized light. We study the relationship between the microstructure and directional deformations in these materials theoretically and by finite element modeling (ANSYS). Other research direction is devoted to magneto-active elastomers, i.e. polymer networks filled with magnetizable particles. Here, the emphasis is put on analytical and numerical studies of field-induced changes in the shape of the sample and its mechanical moduli. The applicant can choose either of the two research topics.

Qualifications:
The ideal candidate should hold a PhD in polymer physics or material engineering and have exceptional knowledge in analytical and numerical methods. It is expected that the candidate will actively participate in raising research funds.

We offer:
A position in a leading research institute, combined with a highly specialized working environment where you can implement your own ideas and work with an international research team.

Salary: According to German pay grade TV-L EG 13
Starting date: June 2021
Duration: 1 year with the possibility of prolongation

Full applications should include a curriculum vitae, a 1-page letter of motivation, certificates, a list of publications, 2-3 references and expected availability date and should be emailed as a single PDF file to otto-susanne@ipfdd.de. Don’t forget to indicate the number of the Job vacancy! For further information please contact PD Dr. Marina Grenzer: itp@ipfdd.de.