



PhD-position (f/m) Molecular Simulations of Polymer Electrodes

A PhD-position is available in the Applied Theoretical Physics group of Prof. Joachim Dzubiella at the Institute of Physics, University of Freiburg (<https://www.compmat.uni-freiburg.de/>)

The PhD-student is expected to develop, conduct, and analyze atomistic computer simulations of conjugated, organic polymers in electrolyte solvents for application in next-generation polymer-based, Li/S battery systems. This position is part of the DFG Priority Program 2248 (<https://www.spp2248.uni-jena.de/en>) and closely linked to experiments at the Helmholtz-Zentrum Berlin and the joint research group "Simulation of Energy Materials" (<https://www.helmholtz-berlin.de/forschung/oe>). Results will be compared with X-ray spectroscopy and other in-operando experimental approaches.

Applicants should have a master's degree in theoretical physics, experience in all-atom computer simulations of polymers and/or complex molecular electrolytes and the statistical mechanics of interacting many-body systems. Expertise in electrostatic/electronic modeling of conducting organic polymers is a strong benefit. Qualified candidates must demonstrate excellent spoken and written English skills, programming and scripting skills, such as python, C/C++, outstanding commitment, and interest in interdisciplinary and independent scientific work.

The position has a planned start in October, 2020 and is at first limited to 3 years. The salary will be determined in accordance with the TV-L E13 (50%) pay scale.

Applications should include a cover letter, CV including references, list of publications, and university certificates (Master, Bachelor), addressed directly to Prof. Dzubiella in a single pdf file. joachim.dzubiella@physik.uni-freiburg.de For full consideration the applications should be sent by August 31, 2020 but later applications may also be considered until the position is filled.

The selection process will follow the rules of the equal opportunity law AGG (Allgemeines Gleichbehandlungsgesetz).