Lehrstuhl für Biogene Funktionswerkstoffe
TUM Campus Straubing für Biotechnologie und Nachhaltigkeit
Technische Universität München

Opportunities for Talents

The Chair of Biogenic Functional Materials at TUM Campus Straubing for Biotechnology and Sustainability is offering a

Master/Bachelor Thesis Project – bio-derived ionic electrolytes and electrodes for photovoltaics and lighting devices

Are you passionate about innovation?; Do you love to develop applied science with environmental impact?; Do you use multidisciplinary thinking to solve professional questions?; Are you able to appreciate the beauty of nature's answers to its many challenges?; Would you like to innovate in an international and highly collaborative environment? Then the Chair of Biogenic Functional Materials (BFM) lead by Professor Dr. Rubén D. Costa at the Technical University of Munich (TUM) is the perfect place for your future. BFM offers state-of-the-art infrastructure comprising three inter-disciplinary and inter-connected laboratories focused on the synthesis and engineering of biogenic and sustainable photo-electro-active materials, mechanical/spectroscopic/electrochemical characterizations, and the engineering of lighting and photovoltaic devices with researchers from around the world. We are located at the young TUM Campus Straubing, aiming to become the European leader in developing sustainable technologies and their economic implementation. Learn from Biology, think as a Chemist, and handle like an Engineer…are you ready?

Background: Chemistry, Biochemistry, Spectroscopy, Electrochemistry, or similar

Project Description: Graphene-based materials and d^{10}-metal complexes are considered front-runners in sustainable electronics applications. We are searching for B.Sc./M.Sc. students that want to cross the line between supramolecular chemistry, spectroscopy, and electrochemistry to develop new bio-derived ionic electrolytes and electrodes to enhance the performances and the stability of BN-doped graphenes and d^{10}-metal complexes in photovoltaics and lighting devices. The novel ionic matrices should be able to overcome electro-, thermal-, *in operando*-, and long storage degradation.

A successful project ends with a technical/proceeding paper and one or more author contributions to the articles of the group in artificial evolution.

For questions please contact:
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