



Applications are invited for a

Doctoral Researcher Position (m/f)

at the Otto Schott Institute of Materials Research, Friedrich Schiller University Jena

“Consolidation processes of hybrid layers and functional coatings”

Part of the ERC-funded initiative “UTOPEs – Unifying concepts in the topological design of disordered materials”, the project aims for mechanistic understanding of the consolidation processes of thin layers deposited by wet chemistry. For this, state-of-the-art in situ methods will be applied which provide insight at the evolution of elastic properties, network topology, crystallinity, porosity and dopant distribution during film deposition. Findings shall be applied towards designing functional layers, for example, with superior dielectric properties (“high-k materials”) and/or photo-stimulated electrical conductivity.

Requirements:

- A Master's degree (or equivalent) in e.g., materials science, polymer chemistry, solid state physics, solid state chemistry, mineralogy or a related discipline; candidates expected to earn their degree before August 2018 are welcome to apply.
- Solid knowledge of materials synthesis, preferably sol-gel methods and wet-chemical deposition of hybrid and inorganic layers, material functionalization and use in optics, photonics, electronics, life sciences or other areas.
- Readiness and enthusiasm to play an active and collaborative role within the ERC-UTOPEs research team and all members of the group.
- Highly motivated and creative personality with an interest to shape one's own thesis project.
- Excellent written and oral communications skills in English.

Training and hands-on experience on one or more of the following areas is highly desired:

- Initial training /experience in characterization and analytical techniques such as QCM and dissipative balancing, in situ XRD, thermal analysis (DSC, DTA, STA, TMA), Raman spectroscopy, Brillouin spectroscopy, FTIR spectroscopy
- Use of finite element simulation tools

We offer:

- A doctoral researcher position (TV-L E13 - salary agreement for public service employees, 50%) with funding from Sep. 1, 2018, until August 30, 2021, as well as generous research funding, for example, including travel allowances
- Comprehensive mentoring program with supervision by a team of expert advisors
- A communicative atmosphere within a scientific network providing top-level research facilities and training program, including participation in international and national conferences, summer schools, workshops and/or research stays.



- The place of work is Jena, Germany, a young and lively university town with dynamic business activities, successful scientific centers of innovation, and a vibrant cultural scene around a university with a rich tradition.

Severely disabled applicants with equal qualification and aptitude are given preferential consideration.

Applications should be written in English. The application deadline is **31.07.2018**. Applications are submitted exclusively via e-mail to: glas@uni-jena.de

Selected applicants may be invited to a recruitment meeting in Jena, Germany.

For more information on the position, feel free to contact Prof. Dr.-Ing. Lothar Wondraczek (lothar.wondraczek@uni-jena.de). Further details: <http://www.glas.uni-jena.de>