Job ID: ESI089DOC224

The Erich Schmid Institute of Materials Science (ESI) of the Austrian Academy of Sciences (OeAW), Austria's leading non-university research and science institution, is offering a

PhD Student Position (f/m/x)

(part-time, 30h per week)

in the framework of the FWF project "**Unraveling the atomic-scale deformation of metallic glasses**" for a **3-year term of employment**.

The aim of the project is to improve our understanding of the fundamental deformation mechanisms in metallic glass by combining atomistic simulations with advanced transmission electron microscopy.

Your tasks:
The successful candidate will be part of an international team whose research activities focus on the multiscale simulations and synthesis, advanced nanocharacterization of complex materials. The candidate's task will focus on performing multi-scale simulations (MD and FEM) and set up machine learning models to characterize the relationship between the structure of metallic glasses and their mechanical behavior. This requires mastery of complex simulations and computational development. By working closely together with team members doing *in situ* deformation in the TEM using 4D-STEM a direct link between simulation and experiment will be established. The candidate is expected to present the findings at international conferences and publish the results in top international journals.

Your profile:
- Master in Materials Sciences, Chemistry, Physics or equivalent
- Basic knowledge of MD computational method and LAMMPS software is highly appreciated
- Background in programming (C++ and Python) and familiarity with Linux is an advantage
- Interest in learning multi-scale simulation methods and machine learning techniques and developing custom data analysis routines using Python scripting
- Excellent communication skills in spoken and written English
- We are seeking independent, responsible and team-oriented candidates

We offer an international, ambitious environment for basic research-oriented candidates who want to perform cutting-edge research with open access to world-class synthesis and characterization facilities. We have a friendly and dynamic research environment and strong collaborations with many international academic partners.

The appointment begins as at the earliest possible date (ca. October 2024). The gross salary will be € 2 698,10 according to the collective agreement of the Austrian Academy of Sciences.

Please send your application including a motivation letter and an academic CV via email to: daniel.sopu@oeaw.ac.at **no later than August 31st, 2024**. Evaluation of candidates will begin immediately and will continue until the position is filled. Please note that only complete applications will be processed.

The Austrian Academy of Sciences (OeAW) pursues a non-discriminatory employment policy and values equal opportunities, as well as diversity. Individuals from underrepresented groups are particularly encouraged to apply.

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