As a University of Excellence, Universität Hamburg is one of the strongest research universities in Germany. As a flagship university in the greater Hamburg region, it nurtures innovative, cooperative contacts to partners within and outside academia. It also provides and promotes sustainable education, knowledge, and knowledge exchange locally, nationally, and internationally.

The Faculty of Mathematics, Informatics and Natural Sciences/CUI: Advanced Imaging of Matter invites applications for a

RESEARCH ASSOCIATE FOR THE PROJECT “CLUSTER OF EXCELLENCE 'CUI: ADVANCED IMAGING OF MATTER' - LASER-INDUCED ELECTRON DIFFRACTION OF ULTRAFAST CHEMICAL DYNAMICS”
- SALARY LEVEL 13 TV-L -

The position in accordance with Section 28 subsection 3 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG) commences as soon as possible.

This is a fixed-term contract in accordance with Section 2 of the academic fixed-term labor contract act (Wissenschaftszeitvertragsgesetz, WissZeitVG). The term is fixed for a period of 2 years with the possibility for extension upon mutual agreement. The position calls for 39 hours per week. This position is also suitable for part time employment.

RESPONSIBILITIES:
Duties include academic services in the project named above. Research associates may also pursue independent research and further academic qualifications.

SPECIFIC DUTIES:
Laser-induced electron diffraction (LIED) of our highly controlled and fixed-in space molecules provides access to the elementary atomic and electronic processes at ultrafast timescales. Disentangling these atomic-scale processes for the dynamics in highly controlled molecular aggregates provides very precise information on the elementary ultrafast processes in real (bio)chemical reactions. Here, you will image these processes with few-picometer spatial and few-femtosecond temporal resolution to fully disentangle the dynamic atomic nature of chemistry.
In this project-leader position you will be leading our efforts on the photoelectron-momentum imaging of ultrafast molecular dynamics in pre-reactive molecular systems, ranging from light-induced photochemical processes to driven chemical processes at thermal energies.

This work will be performed jointly with current and future graduate students and postdocs and you will build on the expertise in the group on the preparation of highly controlled samples, their photoelectron imaging following strong-field ionization, and the quantitative description and analysis of the data. A fully operational experimental setup is available for this project. You will contribute to experimental improvements regarding the triggering of chemical processes and the experimental resolution.

Furthermore, you will contribute to the development of further advanced analysis of experimental data and the visualized chemical dynamics, also in collaboration with groups at the Max Born Institute in Berlin and the Center for Free-Electron Laser Science.

**REQUIREMENTS:**

A university degree in a relevant subject plus doctorate. We are looking for a highly motivated individual with an outstanding background in experimental AMO physics or gas-phase physical chemistry as well as in quantum mechanics. Knowledge of advanced molecular-beam setups, ion or electron imaging, ultrafast lasers and optics, as well as capabilities for programming are required. Experience in the supervision of students and successful acquisition of funding would be highly beneficial and the ability to both successfully and friendly manage a small team and to embed the research in the larger group is necessary.

The Free and Hanseatic City of Hamburg promotes equal opportunity. As women are currently underrepresented in this job category at Universität Hamburg according to the evaluation conducted under the Hamburg act on gender equality (Hamburgisches Gleichstellungsgesetz, HambGleiG), we encourage women to apply for this position. Equally qualified and suitable female applicants will receive preference.

Qualified disabled candidates or applicants with equivalent status receive preference in the application process.

For further information, please contact Prof. Dr. Jochen Küpper, E-Mail: jochen.kuepper@cfel.de or consult our website at https://www.controlled-molecule-imaging.org.

Applications should include a cover letter, a tabular curriculum vitae, and copies of degree certificate(s). Please send applications by 08.07.2020 to: office.kuepper@cfel.de. Please also arrange for 2 or more letters of recommendation to be sent directly to us.

Please do not submit original documents as we are not able to return them. Any documents submitted will be destroyed after the application process has concluded.