



Universität Hamburg

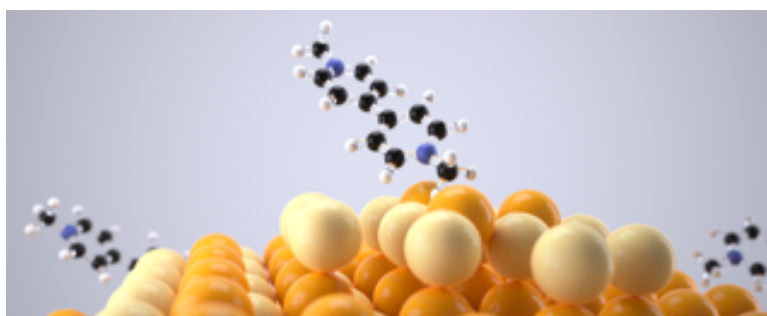
DER FORSCHUNG | DER LEHRE | DER BILDUNG

UHH · MIN-Fakultät · FB Chemie
Grindelallee 117 · 20146 Hamburg

Prof. Dr. Gabriel Bester
University of Hamburg
Grindelallee 117
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PhD position at University of Hamburg in the group “Theory of nanoscopic systems” (Dynamics)

The degree will be obtained either in the physics or chemistry department, depending on the candidate's background. The successful applicant will join the group of [Prof. Bester](#) and work on a research project concerned with semiconductor nanoparticles and how the environment influences their electronic and optical properties. We aim at a fundamental understanding of the excitation (electronic or excitonic) transfer processes between (bio)molecules and the nanoparticle. Gained knowledge should be used to help design nanoparticles with target properties. The work calls for applying and possibly developing numerical approaches for the calculation of ultrafast electron and exciton transfer processes between semiconductors quantum dots and biomolecules.



We expect a Master's degree or equivalent in physics, chemistry or related disciplines, preferably in the fields of theoretical condensed matter research or quantum chemistry. A candidate experienced with one or more of the following topics will be given priority:

- (TD) DFT
- Time dependent quantum chemical approaches
- Programming.

Applications including a CV, a documentation of academic record, a brief description of the Master thesis project, a motivation letter should be sent in a single pdf file to: e-mail: marie.meins@chemie.uni-hamburg.de with subject: Dynamics PhD application

The position can start as soon as possible.

More information can be found at:

Group Web Page: www.chemie.uni-hamburg.de/pc/bester/index.html

Relevant Publication: *Phonon-Assisted Auger Process Enables Ultrafast Charge Transfer in CdSe Quantum Dot/Organic Molecule*, Zhi Wang *et al.*, *JPC* **123** 17127 (2019)

The University of Hamburg is committed to employing more handicapped individuals and especially encourages them to apply. The University of Hamburg seeks to increase the number of women in those areas, where they are underrepresented and therefore explicitly encourages women to apply.