PhD/Postdoc position(s) available: Molecular Simulations of Biomass Dissolution

**Topic:** Our group, as part of the “Tailor-Made Fuels from Biomass” Cluster of Excellence at RWTH Aachen University, studies dissolution of lignocellulosic biomass using molecular simulations. This ranges from atomistic studies of cellulose dissolution in ionic liquids, reactive molecular dynamics of lignin dissolution, and kinetic Monte Carlo and multiscale modeling of the complete dissolution process. Close cooperation with experimental colleagues and other simulation groups in the Cluster is expected.

**Duties:** The exact project and duties of the position will be tailored to the experience and interests of the successful candidate. However, it is expected that the candidate will work on one or more of the areas mentioned above. Teaching duties supporting the educational work of the chair is also expected. Postdoctoral candidates will also be expected to supervise the work of bachelor’s and master’s students performing research projects in the group.

**Requirements:** Candidates should have either a master’s or PhD in engineering, material science, simulation sciences, natural sciences, computer sciences, applied mathematics, or a related area, and experience with either Monte Carlo or Molecular Dynamics simulations. Advanced programming skills in C++ and Python are highly encouraged. Excellent communication skills in English are required; knowledge of German will be helpful, but is not required.

**Availability:** One position will be available as of 01.12.13; a second position is expected to be available in early 2014.

**To apply:** Candidates should send a cover letter/statement of purpose, CV, and list of references to Prof. Ahmed E. Ismail at ahmed.ismail@avt.rwth-aachen.de no later than 15.09.13.
Notices: Female applicants are strongly encouraged. Women will be given preference between candidates of equal qualifications, competence and professional performance, unless outweighed by the case of a fellow applicant.

RWTH Aachen University has been awarded "Prädikat behindertenfreundlich" for their efforts to train and employ people with disabilities with the. Applications from suitably qualified people with disabilities are encouraged. This also applies with equal opportunities in the sense of § 2 SGB IX.