Physical Chemist Postdoctoral Fellow Position

Ultrafast charge transfer and structural dynamics in transition-metal complexes using advanced X-ray methods

The Stanford PULSE Institute at SLAC National Accelerator Laboratory is seeking a Postdoctoral Fellow with a recent degree in Physical Chemistry, Physics, Materials Science or related field. The successful candidate will conduct experimental research in the area of ultrafast physical chemistry and time-resolved X-ray science (scattering and spectroscopy) using the LCLS X-ray FEL at SLAC (and related XFEL and synchrotron facilities around the world) complemented by ultrafast optical spectroscopy with table-top femtosecond lasers.

The focus of this research is on understanding photo-induced charge-transfer, and associated atomic structural dynamics in solvated molecular complexes and assemblies relevant for photocatalysis, light-harvesting, and related processes. This research program closely couples advanced experimental and theoretical tools, and is part of a larger collaboration involving:

- Prof. Munira Khalil, U. Washington Chemistry Dept.
- Dr. Niranjan (Niri) Govind, Pacific Northwest National Lab (PNNL)
- Dr. Elisa Biasin, PNNL & SLAC National Accelerator Lab

The postdoc will be responsible for leading ultrafast X-ray experiments at X-FEL facilities around the world (working with a team of scientists), analyzing data, comparing with model calculations, and publishing results. We are looking for experimental applicants with:

- Strong background in physical chemistry or chemical physics
- Experience with X-ray spectroscopy and/or scattering at synchrotrons or XFELs and/or experience with tabletop ultrafast spectroscopy methods
- Strong ability to analyze data and develop appropriate models, working closely with theorists
- Excellent written and verbal communication skills
- Strong leadership abilities to work as part of an interdisciplinary team of scientists across multiple institutions
- Ability to travel to synchrotron and XFEL facilities around the world to perform experiments

Interested applicants should submit a CV along with a brief statement of research interests and indicate their preferred start date. Please also provide the names of at least two references (including the applicant’s current supervisor) who could, upon request, provide a letter of recommendation. We expect to start interviewing candidates by early September.

Please address applications/inquiries to:

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