

**Job Title: Research Scientist, Laboratory Kinetics and Photochemistry**

**Location: Pasadena, CA**

The Jet Propulsion Laboratory, California Institute of Technology invites applications for a Scientist to perform kinetic and mechanistic studies on radical reactions of importance to the Earth’s and other planetary atmospheres. Carry out laboratory studies in kinetics, photochemistry and spectroscopy including data acquisition, data analysis and publication of results in peer-reviewed scientific journals.  Contribute to the revision and publication of the NASA Evaluation of Chemical Kinetics and Photochemical Data for Atmospheric Modeling.  Adapt and develop state-of-the-art techniques in molecular detection to laboratory kinetics and photochemistry studies. Develop new software for data acquisition and analysis from laboratory apparatus.  Establish new and strengthen existing research programs in the chemistry of Earth and planetary atmospheres.  Prepare proposals and develop an externally-funded research program.  Perform tunable laser spectroscopy lab experiments focused on understanding the amount of carbon in water streams. Adapt the data reduction algorithms to provide highest accuracy while maintaining adherence to flight instrument requirements. Ensure proper opto-mechanical design of instrumentation.

**This position requires the following qualifications:**

* PhD in Physics, Chemistry, Atmospheric Science, Planetary Science, or related scientific discipline, typically with a minimum of two years related experience
* Experimental expertise in the area of chemical kinetics and laser spectroscopy.
* Considerable experience in the use and design of vacuum systems, laser systems for the study of radical kinetics, UV, IR and Mass spectroscopy and their application to the study of kinetics and reaction mechanisms.
* Familiarity with IGOR, Matlab, Labview and python programming.
* Familiarity with kinetics solvers such as Facsimile and Kintecus.
* Demonstrated experience in conceiving, defining, and conducting self-directed scientific research;
* A demonstrated professional reputation as a productive researcher with a track record of publications in peer-reviewed journals;
* Excellent oral (including public speaking) and written communication skills, and the ability to work as part of a team.

**The following qualifications are preferred:**

* A minimum of two years related post-doc experience is strongly preferred
* A history of writing successful proposals, including observing proposals.

Please visit https://jpl.jobs/ (**Job ID 2019-11030**) for a full description. Complete applications will include a cover letter describing the applicant’s vision for their role at JPL as a leader and contributor in laboratory kinetics and photochemistry research, a curriculum vita including a bibliography of refereed and other work, a statement on research experience and research objectives, and contact information for at least three professional references. **Applications received by October 20, 2019 will receive full consideration.**