

**Post-Doctoral Research Fellows
Computational Low Temperature Plasmas
University of Michigan**

Two post-doctoral research fellow (PDRF) positions in computational low temperature plasmas (LTPs) are available in the research group of Prof. Mark J. Kushner at the University of Michigan, Ann Arbor, MI USA. The positions entail development and application of computer models for low temperature plasmas, plasma chemistry, electric propulsion, plasma surface interactions; and nano-scale modeling of surface evolution. The PDRFs may work on several projects, examples being:

- Atmospheric pressure plasma transport, plasma chemistry and sources
- Atmospheric pressure plasmas interacting with complex surfaces, liquids, biological materials, and electrochemical solutions
- Low pressure plasma transport and chemistry in inductively coupled, microwave and capacitively coupled plasmas
- Plasma surface interactions for materials process
- Profile evolution for microelectronics fabrication
- Plasma chemistry in electric propulsion

The PDRFs should have the following skill-sets:

- Expertise in the fundamental processes of LTPs, plasma chemistry and plasma surface interactions
- Expertise in developing and maintaining parallel computer models for LTPs using high level languages including Fortran
- Excellent oral and written communication skills
- Ability and desire to supervise graduate students; and interact with research colleagues in academia, national laboratories and industry.

More information about the research group is at: <https://cpseg.eecs.umich.edu/>

The initial appointment period is 1 year with reappointment for 2 or 3 years subject to performance and availability of funds.

Position 1: Available to start September – November 2025. Focus of this position will be on atmospheric pressure plasma-liquid interactions with a secondary focus on plasmas for microelectronics fabrication.

Position 2: Available to start January to March 2026. Focus of this position will be on plasmas for microelectronics fabrication with a secondary focus on plasma chemistry for electric propulsion.

Applicants should send, as a single file pdf file, a cover letter (including date applicant is available), CV, reprints of representative publications and contact information for 3 references to Prof. Kushner (mjkush@umich.edu).

10 July 2025