**Post-doctoral Position, Ohio State University**

Post-doctoral position opening in laser diagnostics of nonequilibrium plasmas and reacting flows at Nonequilibrium Thermodynamics Laboratories (NETL), Department of Mechanical and Aerospace Engineering at Ohio State University. Tentative start date is Summer 2018. Previous doctoral or post-doctoral research experience with pulsed laser systems and using diagnostics techniques such as Laser Induced Fluorescence, Rayleigh and Raman scattering, CARS and four-wave mixing, and Tunable Diode Laser Absorption Spectroscopy would be a strong plus. Experience operating high-pressure nonequilibrium plasmas (ns pulse, AC, RF, and microwave) would also be helpful.

Here is a brief summary of some of on-going and future NETL research projects:

1. Measurements of electric field in low-temperature plasmas used for biomedical applications, plasma flow control, and plasma assisted combustion, by ps second harmonic generation. We have two ps lasers used for these measurements.

2. Measurements of excited species and radicals in low-temperature plasmas by Cavity Ring Down Spectroscopy. We have two different CRDS experiments currently in operation, both using pulsed laser systems.

3. Measurements of O atoms and vibrationally excited oxygen molecules, O2(X,v), produced during O atom recombination, by ps LIF. We have a brand new ps OPO to produce tunable laser output for this experiment, but we have not started it yet.

4. Measurements of temperature and vibrational excitation in nonequilibrium hypersonic flows, by broadband ns CARS. These measurements are being done in a small-scale Mach 5 plasma wind tunnel.

5. Plasma and high-speed flow diagnostics using a pulse-burst laser, generating high-power tunable output at high pulse repetition rates (up to 500 kHz).

Additional information on NETL research projects and publications can be found here: <https://netl.engineering.osu.edu/> . Further inquiries should be should be sent to Igor Adamovich, [adamovich.1@osu.edu](mailto:adamovich.1@osu.edu)