



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ



HiLASE (High-average power pulsed lasers) is a european R&D project aimed at development of novel type of diode-pumped solid-state lasers (DPSSL) intended for industrial and scientific applications. The project realization team from the Institute of Physics AS CR, v.v.i. is seeking a candidate for the position of:

Postdoctoral Fellow

"Development of compact, laser-driven BEUV source for lithography"

The postdoctoral fellow will focus on development of ~1 W beyond extreme ultraviolet (BEUV) light source near 6 nm via laser-induced plasma generation, and application of this new radiation source in lithography, namely in metrology.

The successful candidate will be responsible for design and construction of a compact ~1 W BEUV source for industrial and scientific use. The source will be pumped by a high average power (500 W) near infrared picosecond thin-disk laser system (0.5 J @ 1 kHz, and/or 5 mJ @ 100 kHz) that generates plasma with BEUV emission. The candidate will also propose and realize pilot experiments on applications of the generated BEUV source in fast metrology.

The candidate must be well acquainted with the field of laser and plasma physics in order to be able to investigate and develop various BEUV laser-driven sources. We require extensive knowledge in the field of plasma spectroscopy and diagnostics, experimental physics of laser-matter interaction, and X-ray generation. The candidate should be experienced in high speed measurement, data acquisition, and signal processing systems. Knowledge of computational and data processing software such Matlab, Comsol, Labview etc. is advantageous.

Key Responsibilities:

1. Realization of research tasks assigned by the Mentor.
2. Advising, training, and educating students (3 hours per week).
3. Research stay in selected world-class institutions outside Czech Republic (50 days per year).
4. Publishing in SCI journals.

Key Requirements:

1. Ph.D. in natural sciences or applied sciences or engineering gained within the last 3 years.
2. English language on a very good level (written and spoken).
3. Strong motivation for work and loyalty.
4. Excellent communication and organizational skills.
5. Team player, feel a sense of accomplishment.
6. Willing to travel.

We Offer:

1. Monthly salary of up to 2.400 EUR depending on the quality of candidate.
2. 36 months contract.
3. 5 weeks of holidays.

Requested Documents:

1. CV (English).
2. List of publications (English).
3. Recommendation Letter (English or Czech).
4. Motivation Letter (English).
5. Copy of Ph.D. diploma or certificate (English or Czech)
6. Copy of Ph.D. thesis (hard copy or electronic version)

Deadline: June 25, 2012

Contact:

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