



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 high brightness EUV source for nanotechnology"**

The postdoctoral fellow will focus on generation of high brightness extreme ultraviolet (EUV) radiation via microplasma using high average power picosecond laser pulses. Generated EUV pulses are planned to be used for nanotechnology applications.

The successful candidate will work under supervision of experienced scientists in the field of generation of high brightness light pulses in the EUV spectral range by means of micro focusing of high average power (500 W) near infrared (1030 nm) picosecond pulses emitted by a diode-pumped thin-disk laser system (5 mJ @ 100 kHz). The candidate must be able to apply the theoretical knowledge into experimental work, especially to develop a compact high brightness EUV source, design and realize pilot nanotechnology-relevant experiments using this source.

The candidate must be experienced in the field of EUV radiation generation by focusing of laser light, and must have an elementary knowledge of laser and plasma physics. He/she must be demonstrably experienced in diagnostic techniques in the EUV/X-ray/optical spectral regions and have knowledge of measurement systems and data analysis (e.g. spectroscopy) in this spectral range.

#### **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:** November 30, 2012

**Contact:**

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