

Superlasers for the real world - this is the main mission of the HiLASE Laser Center. It is located in Dolní Břežany near Prague and is part of the largest institute of the Academy of Science of the Czech Republic, Institute of Physics ASCR (FZÚ). His international team is engaged in the development of laser technology for the high-tech industry. The Research Center is the winner of the prestigious HiLASE Center of Excellence, the first ever challenges of the European Commission's Horizon 2020 "WIDESPREAD Teaming". To ensure the operation and further development of the HiLASE Research and Development Center in Dolní Břežany, we are looking for a new member of the team:

## POSTDOCTORAL RESEARCHER

in the field of

### High power mid-IR ultrashort beams

#### Job Description:

The postdoc will work on development of a high power mid-IR (2-12) ultrashort beam. We have developed multi hundred watt high power picosecond near-IR laser. This lasers is based on chirped pulse amplification and thin-disk laser concept. The high power laser beam will serve as a pump laser of a mid-infrared optical parametric amplifier, which will be developed during the internship. Studies of supercontinuum generation, optical parametric amplification, and difference frequency generation in the mid-IR wavelength region will be pursued. The ultrashort mid-IR output beam will extend the application potential of the Hilase laboratory.

#### Responsibilities:

- Active participation in the development of experimental setups and in performing research experiments;
- Preparation of scientific publications; delivering oral and written reports/presentations.

#### Requirements:

##### *Education:*

- Ph.D. in Physics, Optics, Materials Science or other relevant discipline.

##### *Qualifications Required:*

- Practical experience with lasers and nonlinear optics
- Ability to build complex laser and nonlinear optical systems
- Familiar with diagnostics of laser pulses and beams
- Basic experience in simulation of nonlinear optical processes and laser physics
- Publications in the field
- Good written and oral communication skills (English);
- Ability to learn new scientific areas;
- Ability to work effectively with diverse teams.

## Conditions:

- Time-limited contract - duration of up to 24 months;
- Full time job (1,0 FTE)
- Fulfillment of Postdoc definition, i.e. up to 7 years from completion of Ph.D. study
- Minimum of 2 scientific publications within the period of last 3 years, listed in Thomson Reuters Web of Science, Scopus or ERIH PLUS

## We offer:

- Opportunity to participate in a unique scientific project
- 5 weeks of vacation, 5 Sick Days, flexible working hours and other employee benefits
- Family allowance funded by the Mobility Project
- Creative young team, Social Events, Teambuildings
- A place with a team spirit where it is a pleasure to work

If you are interested in this Offer, please send your CV, motivation letter and names/addresses of 1-2 potential referees in English by email to [lakoma@fzu.cz](mailto:lakoma@fzu.cz)

Please, include the following text in your e-mail / letter:

*I agree that, according to the decree 101/2000 coll.(Czech Republic), my personal details sent to FZU AV CR, v.v.i., Na Slovance 2, 18221 Praha 8, Czech Republic can be used for the purpose of obtaining employment and management of database of employment candidates. This permission is given for the period of one year and can be at any time withdrawn by giving a notice in writing.*

### Contact:

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