

ELI-HU Research and Development Non-Profit Limited Liability Company

is announcing

Multiple Postdoctoral positions

Location:	Szeged, Hungary
Staff Category:	Staff Member
Contract Type:	Fixed Term
Grading:	Depending on experience and qualifications
Closing Date:	Open until filled
Reference Number:	ASF_00PD1

Job Background

The European Extreme Light Infrastructure (ELI), the first civilian large-scale international research facility based on high-power lasers, is being constructed with international cooperation at three locations (Prague, CZ; Magurele, RO; and Szeged, HU) with a coordinated management and research strategy. The Attosecond Light Pulse Source (ALPS) research center, currently under construction in Szeged, Hungary will operate as a user facility for studying of electron dynamics on the femto-, attosecond scale in atoms, molecules, plasmas and biological samples. Experimental projects demanding ultrahigh intensity light, like laser particle acceleration or laser generated X-ray radiation will be mainly carried out at the Beamline Facility in Prague, while the photoinduced nuclear experiments will be performed at the research institute to be built in Magurele, next to Bucharest.

The primary mission of the ELI-ALPS research facility to be built in Szeged is to make a wide range of ultrafast light sources accessible to the user groups of the international scientific community, with special consideration to coherent extreme-ultraviolet (XUV) and X-ray radiations, and to attosecond pulses. The secondary mission of the facility is to contribute to the scientific and technological development necessary for the generation of 200 PW peak intensity pulses.

ELI-HU Non-Profit Research and Development Ltd. coordinates the preparation, construction and operation of ELI-ALPS, an international laser research center.

Job Description

The strong-field and attosecond AMO/CM group at ELI-ALPS has multiple postdoctoral positions available in the area of experimental AMO and CM physics. The attosecond AMO/CM group is responsible for development of a wide range of endstations to be coupled with state-of-the-art laser and attosecond XUV/X-ray sources. Some of the endstations include advanced detection techniques such as COLTRIMS and VMI in gas and liquid phase, and ARPES, PEEM, and spin detectors in condensed phase.

Job Requirements

Requirements:

The potential candidates are expected to be recent graduates with PhD in the fields of AMO and CM physics, physical chemistry, and electrical engineering with experience in at least one of the following areas: attosecond physics, coherent control, ultrafast lasers, nonlinear and XUV/X-ray optics, photoemission spectroscopy and electron microscopy, and X-ray diffraction.

Additional desirable skills:

Time-resolved experimental techniques, CAD or similar 3D design software, UHV techniques, experience with DAQ and DAN techniques including time-and-position sensitive detectors, transient absorption, solid state sample preparation and manipulation, nanoplasmonics, supersonic and liquid jets, MatLab, LabView, and RayTracing.

What we offer

- Competitive salary
- Pleasant work environment
- Outstanding scientific environment
- Diverse tasks

Application for the job

If you are interested in the position and meet the required criteria, please submit

- your detailed CV
- full list of publications – highlighted the list of articles published in refereed journals and containing the following data:
 - h-index
 - cumulative impact factor (calculated by summing up impact factors of journals' characteristic for the year of publication of each articles)
 - number of citations without self-citations
- motivation letter indicating three referees and your contact details to allas@eli-alps.hu

Please use the registry number (ASF_00PD1) of this announcement as the subject of your e-mail.

Schedule:

- Application deadline: continuous, valid until withdrawn
- Foreseeable date of the interview for selected candidates: within 6-10 weeks of application submitted