Investigation of multiphoton absorption in the SWIR range

Laboratoire de Chimie, ENS de Lyon, France

The Chemistry Laboratory of ENS Lyon has an internationally renowned expertize in the synthesis and elaboration of molecules and materials with multiphoton absorption for optical power limiting, bioimaging, photodynamic therapy and nonlinear 3D printing. The Photonics and Biophotonics team is about to construct nonlinear spectroscopy experiments for the characterization of the two-and three-photons absorption properties of such molecules and materials especially in the SWIR range. In this framework, we are looking for candidate for a postdoc position with a strong expertize in femtosecond spectroscopy and laser applications. The role of the successful candidate will be to construct a Z-scan experiment for the NIR and SWIR excitation range, and characterize the nonlinear absorption properties of molecular systems synthetized in the laboratory, make critical comparison with fluorescence-based measurements and propose new reference compounds for the SWIR range.

The ideal candidate has a strong knowledge in nonlinear optics and laser spectroscopy. Good programming skills (ex. Labview and Python) is an advantage. We are looking for a highly motivated, dynamic person who is able to work alone or in a team. The candidate should be able to present results at international conferences, synthesize and write scientific documents.

The candidate will have the possibility to participate in various research topics involving nonlinear absorption. The position is an exciting research opportunity in a multidisciplinary laboratory with a very collegial and flexible working environment. The candidate will have the opportunity to interact with industrial partners involved in the project.

Fixed term contract: 24 months

Start date: There is flexibility over starting dates, but successful applicants are welcome to take up post starting July 1, 2021.

Workplace: Laboratoire de Chimie (UMR 5182), ENS de Lyon, campus Monod, 46, allée d'Italie, 69364 LYON CEDEX 07, France

Salary: According to experience, based on the salary scheme of University of Lyon

Training required: PhD in physics or physical-chemistry with strong background in nonlinear optics

For further information contact: Akos BANYASZ, e-mail: akos.bayasz@ens-lyon.fr, tel: +33472728858

Applications including motivation letter, curriculum vitae and recommendation should be submitted by e-mail to akos.banyasz@ens-lyon.fr