The Optical Nanomaterial Laboratory at the Physics Department of ETH Zurich is looking for a

PhD Student in Nonlinear Photonics of Metal-Oxides Metastructures.

The PhD student will investigate a new class of nonlinear optical materials and their applications as compact photonic devices. The interest targets the increasing demand for miniature optoelectronic devices that are efficient, robust and easy to fabricate for large scale applications. With this work, the student will reveal if oxide-based materials maintain their nonlinear optical properties at the nanoscale and develop the use of oxides to build 2D and 3D optical metastructures. The project involves fabrication and processing by top-down and bottom-up methods, spectroscopy and time-resolved investigation, numerical modelling and applications of the nonlinear materials as sensors, ultrafast photonic, and quantum devices.

The successful candidate should be highly motivated and creative, with a Master’s degree in physics, optics, material sciences, or related fields, and be interested in working in an interdisciplinary environment at the interface of nanotechnology, photonics and materials. The preferred starting date for this position is Mai 2018 or at the earliest possible date.

We look forward to receiving your application including a cover letter, CV, transcripts of Bachelor’s and Master’s degrees, and contact information of two referees at Prof. Rachel Grange email: grange@phys.ethz.ch.

For further information please contact Prof. Rachel Grange by e-mail: grange@phys.ethz.ch or visit our website www.ong.phys.ethz.ch.