Post-Doctoral Position in THz Science
at the University of Bern, Switzerland

Earliest start date August 1st, 2017

The Research

We search for a Post-Doctoral Researcher to complete the research team of Prof. Natalie Banerji, as part of the ERC Starting Grant project OSIRIS: “Organic semiconductors interfaced with biological environments”. Transducing information to and from biological environments is essential for bioresearch, neuroscience and healthcare. There has been recent focus on using organic semiconductors to interface the living world, because of their structural similarity to bio-macromolecules. However, progress in the organic biosensing and bioelectronics field is limited by poor understanding of the underlying fundamental working principles.

The objective of this postdoctoral work is to investigate organic semiconductor films immersed in aqueous electrolytes, using time-domain THz spectroscopy in attenuated total reflection (ATR) geometry. Doping and de-doping of the films due to penetration of ions will be followed under applied bias, in order to investigate mixed electronic and ionic conductivity for organic electrochemical transistors.

Your Profile

We are seeking an outstanding and highly motivated candidate with a PhD degree in physical chemistry, physics or photonics. Thorough experience with time-domain THz spectroscopy, using ultrafast laser systems, is required. You are expected to develop the experiment independently and to construct the corresponding setup, including optics, electronics and programming. Knowledge about organic electronic devices is an additional asset and you should be ready to work with biological samples produced within appropriate collaborations. The direct supervision of at least 1 PhD student is anticipated. You should have an independent and solution-driven work attitude, as well as the ability to evolve in an interdisciplinary environment. We generally enjoy group members with an open personality, and excellent communication/social skills.

We Offer

You will join an enthusiastic young research group, participate in exciting projects, enjoy excellent research facilities, and receive attractive employment conditions. The project benefits from numerous collaborations with renowned groups in the same institute, in Switzerland and at international level.

Please Provide

- A curriculum vitae
- A letter of motivation

By e-mail to natalie.banerji@unifr.ch (with Subject: “ERC_PostDoc_YourName”)