Post-Doctoral Position in SFG Spectroscopy
at the University of Bern, Switzerland

Earliest start date January 1st, 2018

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 solid-liquid interfaces of organic semiconductor films immersed in aqueous electrolytes, using sum frequency generation (SFG) spectroscopy. The surface structure will be related to interfacial exchange due to photoexcitation on the thin film side, or due to biological activity on the aqueous side.

Your Profile

We are seeking an outstanding and highly motivated candidate with a PhD degree in physical chemistry, physics or photonics. Thorough experience with SFG 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”)