Post-doctoral Position on High-Performance DEAs

The Soft Transducers Laboratory (EPFL-LMTS) at the EPFL in Neuchatel, Switzerland has an opening for a talented and motivated postdoc to develop high-performance Dielectric Elastomer Actuators (DEAs).

Your Profile
- PhD in Experimental Physics, Electrical or Mechanical Engineering, or Materials Science
- Strong experimental skills
- Ability to collaborate closely with colleagues in a multicultural setting
- Ideally experience with DEAs, soft actuators or electrostatic actuation

Research Context
The EPFL-LMTS is a leader in developing complex microsystems based on smart materials. We are active in a broad range of actuators and sensors based on soft materials, and have unique expertise in DEAs. This position is funded in part by an industrial partner.

Your Tasks
You will fabricate DEAs using novel high-permittivity elastomers, and perform detailed electromechanical characterization of those devices in order to determine what phenomena limit operation and how to push back those limits. Your tasks include:

- Fabricate DEAs in our cleanroom using a range of compliant electrodes
- Develop and automate test benches for device characterization (mechanical, electrical, optical)
- Analyse failure modes and perform accelerated testing
- Develop improved process flows for multi-layer devices
- Optimize DEAs for applications in soft robotics and haptics
- Publish in high level journals

Contract Details
- 12-month contract, renewable (CDD)
- Start date: 1.11.2019 or by arrangement
- Work location is Neuchatel, Switzerland.

We Offer
- Excellent facilities (state of the art cleanrooms, dedicated platform for soft matter processing, extensive characterization equipment)
- A young, dynamic, inter-disciplinary, and international working environment.
- Competitive salary

To apply for the position, please email a CV, cover letter, university transcript, and list of three references to herbert.shea@epfl.ch. (Incomplete applications will not be considered)

Further information about our lab in general can be found at https://lmts.epfl.ch