

Empa
Überlandstrasse 129
CH-8600 Dübendorf
T +41 44 823 55 11
F +41 44 821 62 44
www.empa.ch

Dübendorf, September 2011

Postdoc Position Tunable Diode Laser Spectroscopy Sensor Development

Empa is a Swiss Science and Technology Institution of the ETH-Domain. The Laboratory for Air Pollution & Environmental Technology has an opening for a postdoctoral research fellow for sensor development based on diode laser spectroscopy.

Recent progress in room temperature quantum cascade lasers and mid-infrared detectors provides exciting opportunities for optical sensor. Within nano-tera.ch we bring the know-how of leading groups in Switzerland together to create a photonic sensor platform with high performance and reliability at minimal cost. This platform will leverage on latest laser source, IR-detector and absorption cell technologies, with the ultimate goal of proving its suitability for isotopic ratio measurements of CO₂ in environmental and medical gas samples.

The successful candidate will integrate the key elements to create a compact and versatile optical sensor. In close collaboration with scientists from Empa, ETHZ, EPFL, UniNE and FHNW you will join our ongoing efforts to design the most efficient optical layout, integrate sources and detector devices that are currently under development, and design a demonstrator platform with a graphical user interface. The timeframe for this part of the project is 2 years.

We are looking for a highly motivated scientist with a PhD in physics or a related discipline, and a thorough background in optics, electronics and laser spectroscopy, as well as a strong interest in instrumental development.

For further information contact Dr. Lukas Emmenegger, phone +41 58 765 46 99, e-mail: lukas.emmenegger@empa.ch

Applications should be accompanied by a CV, a list of publications, a letter of motivation and addresses of two referees.

Please submit your application online www.empa.ch/job

