



seit 1558

Bachelor / Master thesis / Hiwi Raman Gas Sensing

Leibniz



The group **Fiber Spectroscopic Sensing** of the **Leibniz Institute of Photonic Technology** offers a position for **Hiwi** and a topic for Bachelor/Master thesis in Raman Gas Sensing.

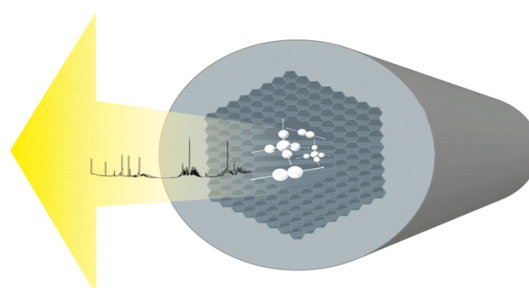
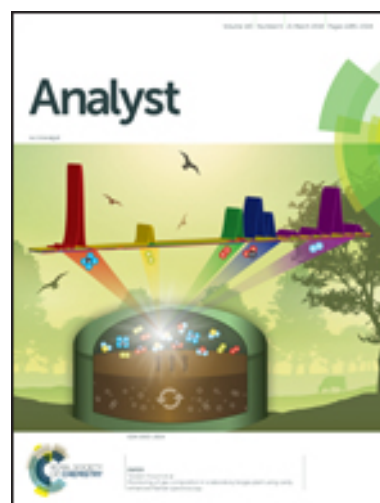
Within the scope of this project a **new miniaturized and robust Raman gas sensing setup will be developed** with very high spectral resolution. Such spectrally highly resolved Raman gas sensing will help for detailed elucidation of interdisciplinary research questions in **environmental and energy science as well as in breath analysis**.

Your Qualification:

Bachelor / Master student in
Physics
Photonics
Medical Optics
or related disciplines

Your skills and interests:

- Experimental and technical skills and interest in optical setups and instrumentation
- Knowledge in Raman spectroscopy would be helpful
- Interest in interdisciplinary work and scientific ambition



We offer:

- Attractive research environment with excellent instrumental equipment
- Possibility of interdisciplinary cooperation
- Young and dynamic team with interdisciplinary background

Monitoring of gas composition in a laboratory biogas plant using cavity enhanced Raman spectroscopy. **Analyst (2018)**, 143.6, 1358-1366.

Direct Raman spectroscopic measurements of biological nitrogen (N_2) fixation under natural conditions: A novel analytical approach for studying nitrogenase activity, **Analytical Chemistry (2016)**, 89, 2, 1117-1122.

All-in-one: A versatile multi-gas sensor based on fiber enhanced Raman spectroscopy for monitoring postharvest fruit conservation and ripening, **Analyst (2016)**, 141, 2023

Online investigation of respiratory quotients in *Pinus sylvestris* and *Picea abies* during drought and shading by means of cavity-enhanced Raman gas spectroscopy, **Analyst (2015)**, 140, 4473

Fiber-enhanced Raman multi-gas spectroscopy – a versatile tool for environmental gas sensing and breath analysis, **Analytical Chemistry (2014)**, 86, 11, 5278

For further information please contact

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