



seit 1558

Bachelor / Master thesis / Hiwi Innovative Fiber Sensing

Leibniz



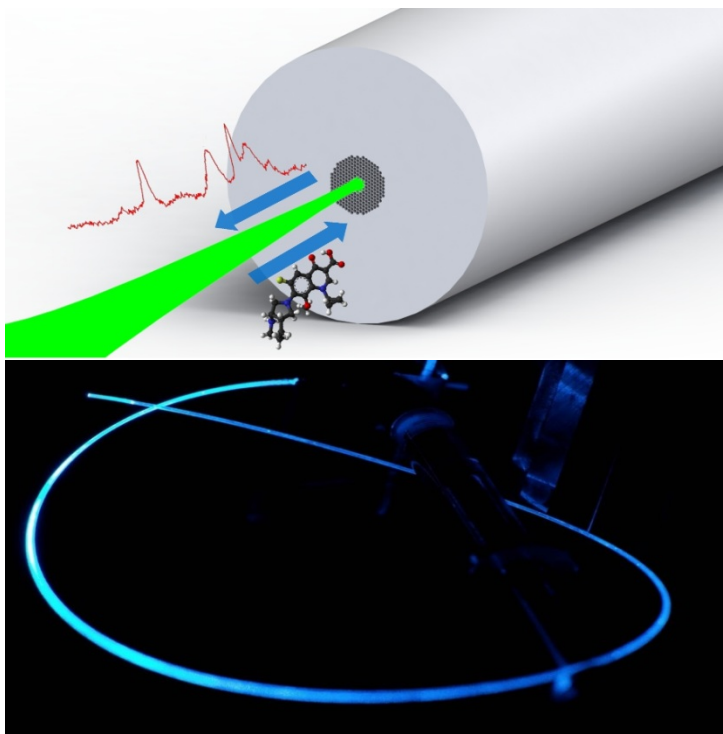
LEIBNIZ-INSTITUT für
PHOTONISCHE TECHNOLOGIEN

The group **Fiber Spectroscopic sensing** of the **Leibniz Institute of Photonic Technology (IPHT)** offers a position for **Hiwi** and a topic for **Bachelor/Master thesis**.

Within the scope of this project **innovative spectroscopic systems based on novel optical fibers** and fiber arrays will be developed for highly sensitive and intrinsically specific Raman spectroscopy with **applications in environmental sciences and medical diagnosis**.

Your Qualification:

Bachelor/Master student of
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 and fiber optics 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

Fiber enhanced Raman gas spectroscopy. **Trends in Analytical Chemistry (2018)**, 103, 230-238.

Fiber-Enhanced Raman Sensing of Cefuroxime in Human Urine. **Analytical Chemistry (2018)**, 90, 22, 13243-13248.

Low-loss single-mode guidance in large-core antiresonant hollow-core fibers, **Opt. Letters (2015)**, 40, 3432

Fast and highly sensitive fiber enhanced Raman spectroscopic monitoring of molecular H₂ and CH₄ for point-of-care diagnosis of malabsorption disorders in exhaled human breath, **Analytical Chemistry (2015)**, 87, 2, 982

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

New Ways to Guide Light, **Science (2009)**, 296, 276 / Photonic crystal fibres, **Nature (2003)**, 424, 847

Highly sensitive broadband Raman sensing of antibiotics in step-index hollow-core photonic crystal fibers. **ACS Photonics (2017)**

For further information please contact

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