Open position for nanoscale solid-state NMR spectroscopy

The research group "Quantum sensing" at the Technical University of Munich and member of the Munich Center for Quantum Science and Technology (MCQST) is inviting applications for a Ph.D. or postdoctoral position.

In recent years, spin defects in diamonds (nitrogen-vacancy (NV) centers) have been shown to act as atomic-sized sensors for magnetic field detection. One highly promising direction is nano- and microscale nuclear magnetic resonance (NMR) spectroscopy. The applications of our new technology range from the analysis of single cells in microfluidics to the characterization of surfaces and novel materials in the field energy science (https://www.ch.nat.tum.de/en/qsens/home/).

**Current open position: NV-NMR on thin film (energy) materials**

Recently, we have applied NV-centers to perform NMR at surfaces and interfaces [1,2]. We want to strengthen this research direction by applying this method to probe thin film materials, focusing on catalysis and battery materials. The highly motivated candidate should have expertise in solid-state NMR spectroscopy or NV-quantum sensing, and be interested in technology development.

The positions are located at the Technical University of Munich (Chemistry Department) and is integrated into the Munich Center of Quantum Science and Technology. TUM is an equal opportunity employer. Qualified women are therefore particularly encouraged to apply.

To apply, email a motivation letter, CV, and contact information for two references to Dominik Bucher (Dominik.Bucher@tum.de).

More details on the previous development of this project can be found in the following references: