

## **Available PhD and post-doc positions in the group of R. Berndt**

Starting date: as soon as possible

### **Several subjects are proposed:**

- Switchable magnetic molecules on metallic substrates using scanning tunneling and atomic force microscopies
- Magnetic impurities implanted in superconducting hosts
- Electron paramagnetic resonance of individual magnetic molecules
- And to be discussed ...

### **Presentation of the group**

Our group, located in Kiel (north of Germany), investigates a wide range of phenomena in condensed-matter physics (magnetism, superconductivity, transport through nanoscale contacts, photon emission from contacts, quantum noise) and surface physical chemistry (electrospray deposition, switchable molecules, chirality, molecular interactions). Experiments are performed using scanning tunneling and atomic force microscopes operated in ultra-high vacuum at 300 K (2 machines) and at low temperatures (4 machines running + 1 being set up), for which the group has a world-wide recognized expertise.

A list of publications can be found at:

[https://www.physik.uni-kiel.de/en/institutes/ag-berndt/publications?set\\_language=en](https://www.physik.uni-kiel.de/en/institutes/ag-berndt/publications?set_language=en)

### **Expected profile of candidates**

Candidate should have a master degree in physics or chemical physics. Experience in magnetism, superconductivity, microscopy or high-frequency electronics is welcome. The candidates should be fluent in scientific English.

### **Contact**

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### **Key words**

Magnetism, superconductor, molecule, scanning tunneling microscopy, atomic force microscopy, electrospray ionization, electron paramagnetic resonance, low temperature, ultra-high vacuum