

DPhil studentship in Physical Chemistry

Topic: Electron Spin Resonance (ESR) spectroscopy applied to energy materials

Supervisor: Dr Claudia Tait

Start date: 1st October 2025

Applications are invited for a **DPhil studentship in Physical and Theoretical Chemistry**, available from October 2025, to work under the supervision of **Dr Claudia Tait** in the Department of Chemistry at the University of Oxford.

Unpaired electron spins are ubiquitous in materials and devices for optoelectronics and solar energy technology and play a crucial role in the fundamental photophysical processes at the basis of how these devices function. Electron Spin Resonance (ESR) spectroscopy allows us to selectively detect these electron spins and to characterise their molecular environment, gaining a molecular-level understanding of device function. The project will involve advancement and application of spectroscopic techniques and simulation tools for the measurement and analysis of the properties of spins and their role in spin-dependent processes in materials and devices for energy technology.

More information can be found on the group website: taitgroup.web.ox.ac.uk.

Please contact Dr Claudia Tait (claudia.tait@chem.ox.ac.uk) if you are interested in further details.

Candidates with a first-class or strong upper second-class undergraduate degree in Chemistry, Physics or a related discipline are encouraged to apply. Candidates are expected to have a strong interest in physical chemistry, particularly spectroscopy and its quantum mechanical basis. Prior experience in physical chemistry or physics research is desirable.

The successful candidate will be based in the Physical and Theoretical Chemistry Laboratory of the University of Oxford. The studentship will cover course fees at the Home rate and provide a stipend funded by the Royal Society (set at £20,034 for the first year, and then incremented annually) for 4 years.

Candidates should submit a formal application for DPhil in Chemistry via the Oxford online application system: <https://www.ox.ac.uk/admissions/graduate/courses/dphil-chemistry>

Deadline: 12.00 noon UK time on Friday 11th July 2025

Queries relating to the application and admission process should be directed to: graduate.admissions@chem.ox.ac.uk; tel.: +44 (0) 1865 272569.