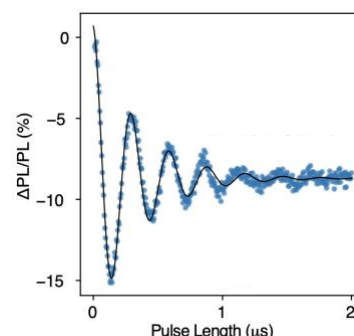


Postdoc Position: Quantum Sensing with Molecular Spin Qubits



[Quantum Optospintronics Group](#), University of Glasgow.

Optically addressable molecular spins combine the coherence, optical readout, and room-temperature operation of solid-state spin qubits with the atomistic tunability of synthetic chemistry. For quantum sensing they open unprecedented target proximity through their ~ 1 nm size; attachment to desired locations through chemical techniques; engineered stronger couplings to sensing fields; and atom-by-atom tuning. We have demonstrated the potential of such systems as a distinctive quantum-sensing platform [see e.g., Phys. Rev. Lett. 133, 120801 (2024); JACS 147, 22911 (2025); MRS Bulletin 51, 312 (2026)].



High-contrast room-temperature pulsed ODMR of molecular spins

The role. You will deploy advanced spin-optical measurements—primarily pulsed optically detected magnetic resonance—on molecular spins in both ground and excited states, and advance their capabilities for nanoscale measurement and control, enhanced couplings to sensing fields, room-temperature operation, and deployment as practical quantum probes for biosensing and nanoscale magnetic resonance. You will focus on quantum measurement, with molecules synthesised by collaborators.

What we're looking for. A PhD in physics/chemistry/materials science/engineering/a related discipline; relevant experimental experience—e.g., spin resonance, molecular photophysics, solid-state defects.

What we offer. 10+ person team spanning physics, chemistry, quantum engineering, and materials science; state-of-the-art experimental capabilities—including single-spin confocal pulsed ODMR from 4-300 K; world-class collaborators—including at Imperial, Cambridge, Tokyo; career development—conference travel, support for independent Fellowship applications, PhD-student co-supervision; visa and relocation support for 3-year contracts.



Details

3-year post · £41,064 - £46,049 · closes **17 September 2026**

Contact Dr. Sam Bayliss: sam.bayliss@glasgow.ac.uk

Informal enquiries very welcome at any stage

<https://www.jobs.gla.ac.uk/job/postdoctoral-research-associate-in-quantum-sensing-with-molecular-spin-qubits-6000892>

(Vacancy ref: 206373)



We particularly welcome applications from candidates from groups historically under-represented in STEM, and are committed to fostering an inclusive, supportive, and flexible working environment.