

## Candidate Information

**Position:** Total Scattering Facility Scientist  
**School/Department:** School of Chemistry and Chemical Engineering  
**Reference:** 25/112735  
**Closing Date:** Monday 4 August 2025  
**Salary:** £39,922 - £47,631 per annum  
**Anticipated Interview Date:** Monday 18 August 2025  
**Duration:** 3 years

### JOB PURPOSE:

To manage the recently commissioned Small and Wide-Angle X-ray Scattering (SAXS/WAXS) facility at the School of Chemistry and Chemical Engineering at Queen's University Belfast and leverage complementary strengths with the Disordered Materials Group of the ISIS Neutron and Muon Source in Oxfordshire. To support and grow the community of researchers making use of specialist equipment for SAXS/WAXS and Total Neutron Scattering (TNS), particularly in the area of Liquids and Disordered Materials research.

The successful candidate will be expected to proactively engage with new users and members of the scientific community who can benefit from the facilities at QUB and ISIS. They will provide training and support both in pre-experiment design and during experiments, as well as in data analysis that makes use of the advanced research tools of the department and the ISIS Disordered Materials Group. The appointee will also assist in the development and expansion of collaborative links with other academic and research institutions, as well as commercial users, throughout the United Kingdom and Europe, and will develop and drive multiple strands of collaborative research, evidenced by joint publications and funding applications.

### MAJOR DUTIES:

1. Manage the scheduled use of the SAXS/WAXS instrument at QUB to ensure that projects are completed in a cost efficient and timely manner, promoting best practice use to a multiple stakeholder audience. This includes day-to-day operation, user training, scheduling periodic servicing, diagnosing and repairing faults as reported, to ensure minimum operational downtime. Liaising with service engineers and the School's technical team as required.
2. Working in partnership with the Disordered Materials Group of the ISIS Neutron and Muon facility, develop and support initiatives to help grow both the academic and commercial UK science community in Liquids and Disordered Materials research, whilst promoting and facilitating engagement with the new SAXS/WAXS instrument at Queen's University Belfast, and the SANDALS and NIMROD beamlines at the ISIS Neutron and Muon Source.
3. Undertake a personal or collaborative research project in the Liquids and Disordered Materials research area, and apply the associated specialist expertise gained, to support the development of the QUB, and wider UK, Disordered Materials community: advising on, exploring and adapting QUB and ISIS facilities to solve complex research problems, and actively training and supporting users in neutron and X-ray data analysis.
4. Participate constructively in multi-disciplinary research activities, contribute to grant applications involving neutron and X-ray scattering as Principal or Co-investigator, and publish research outputs as main author or co-author.
5. Apply specialist knowledge and expertise providing input and advice on existing and emerging research and teaching. This will involve collaborating internally and externally at all organisational levels and career stage.
6. Advise on suitability, effective use and costs involved in determining pricing for research grant applications, from principal investigators in the community, when applying for staff and equipment time to use the facilities.
7. Carry out any other duties which are relevant and appropriate to the post as and when required.

### ESSENTIAL CRITERIA:

1. A PhD in Life Sciences, Physical Sciences or Engineering, with experience SAXS/WAXS and/or total neutron scattering.
2. Specific, relevant and practical experience (which may include training) on scattering techniques, with emphasis on analysis and interpretation of small angle and wide angle scattering data.

3. Demonstrated ability to have a personal and collaborative research programme in an area relevant to the post which might be assessed through publication record, evidence of future research plans and programme, conference engagement, award of funding, etc.
4. Experience of working as part of a team, as well as independently, with proven ability to multi-task, organise and prioritise own work with minimal supervision.
5. Experience working on multiple projects and being member of collaborative projects.
6. Proven track record of networking across a range of stakeholders.
7. Excellent written and oral communication with experience of delivering advice and guidance on complex / technical topics.
8. Good interpersonal skills with proven track record in knowledge sharing and problem solving.
9. Proven ability to write proposals and secure funding and/or access to Large Facility research capabilities.

**DESIRABLE CRITERIA:**

1. Experience in the study of disordered materials using X-ray and neutron scattering.
2. Experience in scientific software development.
3. Experience in user support and training.
4. Experience in user engagement and scientific communication with non-specialist audience.
5. Proven ability to manage budgets of the order of £50k.

**ADDITIONAL INFORMATION:**

This role will primarily be based within the School of Chemistry and Chemical Engineering at Queen's University Belfast, but will require short periods of secondment to the ISIS Neutron and Muon Source in Oxfordshire to participate in experiments and collaborative community development activities supported by the ISIS Disordered Materials Group.

At QUB, the appointee will report to the Head of School of Chemistry and Chemical Engineering, and at the ISIS Neutron and Muon Source to the Head of the Disordered Materials Group.

Informal enquiries may be directed to: Professor Gosia Swadzba-Kwasny, email: [m.swadzba-kwasny@qub.ac.uk](mailto:m.swadzba-kwasny@qub.ac.uk)