**Job Title:** Research Associate  
**Grade:** 7  
**Salary:** £34,804 to £40,322 per annum  
**Department:** School of Chemistry  
**Hours/Contract:** Full time, fixed-term contract for 2 years  
**Reference:** 2119

**Role Purpose**

You will develop and carry out own research on Unveiling quantized vortices in nanoscale quantum fluids whilst contributing as a team member to the wider research programme.

You will take a leading role in experimental design and determining the direction of the project in line with reaching the research goals, developing your own independent research and providing guidance to the other members of the team in the area of quantum hydrodynamics, superfluid helium and nanoscience.

### Main Duties and Responsibilities

- Develop and carry out an independent original research programme, giving guidance to other members of the team
- Plan and carry out the work programme for own research contribution, using methodology and techniques appropriate to this type of research
- Contribute to directing the work of the team (i.e the PhD student and the technician) including prioritisation of tasks
- Writing up research findings for dissemination amongst the research team and broader international community
- Analysis of data and extrapolation of new themes/strands in area of research
- Take a lead in presenting results at scientific meetings in the UK and overseas
- Participate in general laboratory activities to ensure the efficient functioning of the lab
- Assist with the training of new members of the lab, including undergraduate students and work experience trainees
- Report to the PI, ensuring the progress of the project towards the goal identified.

### Internal and External Relationships

Participation of training, development, and publicity activities

### Planning and Organising

Plan research activity as outlined in the project proposal and coordinate the work of the PhD students.

### Qualifications, Knowledge and Experience

#### Essential

- Educated to PhD level (or equivalent) in Physics, Physical Chemistry, Nanoscience or equivalent professional qualifications and experience *
- Experience in standard techniques of ultravacuum systems, transmission electron microscopy*
Job Summary

- Evidence of research productivity (e.g. research publications in peer review journals and presentations)
- Evidence of involvement in innovative research in the field of nanoscience, physical chemistry and/or physics, material science.
- Knowledge and experience of research in high-resolution imaging of nanomaterials
- Previous knowledge of physical chemistry and nanoscience
- Good working knowledge of relevant IT Systems including MS Office

Desirable

- Superfluid helium droplets;
- Skills in using electronic devices;
- Problem-solving skills;
- Teamwork and interpersonal skills

Skills, Abilities and Competencies

Essential

- Ability to work well in a team and on own initiative
- Excellent written* and oral communication skills necessary to communicate complex information clearly
- Ability to plan, implement and deliver programmes of work
- To be able to demonstrate research potential and enthusiasm of the subject area and deliver high quality research
- Quick learner

Desirable

- Evidence of continued personal development of subject expertise
- The ability to demonstrate leadership skills throughout the team including problem solving (e.g. methodology and techniques)

*Criteria to be used in shortlisting candidates for interview

Reason for Fixed Term Contract

The reason for the fixed term contract is stated in section 1.9 in the summary of contractual terms in your contract of employment.

Criminal Declaration

If you become an employee, you must inform your manager immediately, in writing, if you are the subject of any current or future police investigations/legal proceedings, which could result in a criminal offence, conviction, caution, bind-over or charges, or warnings.

VITAL

The University encourages all staff to live our VITAL values which are:

Valuing People, Innovators, Together, Accountable, Leaders.
**Job Summary**

**Equality and Diversity**

We believe that equality, diversity and inclusion is integral to a successful modern workplace. By developing and implementing policies and systems that challenge stereotypes across all aspects of our work, we have a culture that recognises and values the diverse contributions of our staff which benefits everyone. Our strong values of inclusivity and equality support our efforts to attract a diverse range of high quality staff and students, and identify our University as a progressive and innovative workplace that mainstreams equality, diversity and inclusion.