

Candidate Information

Position:	Research Fellow
School/Department:	QUILL
Reference:	20/108230
Closing Date:	Wednesday 1 July 2020
Salary:	£33,797 to £40,322 per annum
Anticipated Interview Date:	Wednesday 15 July 2020
Duration:	This is a full time fixed term contact post for three years

JOB PURPOSE:

Applications are sought for three 3-year postdoctoral positions within the QUILL Research Centre, to work on a large research programme with an industrial partner. We are looking for PhD-level chemists and/or chemical engineers, with expertise in at least one of the following areas: reactive extractions, gas or liquid separations, synthesis of ionic liquids/covalent organic frameworks/main group coordination chemistry, or synthesis/formulations of soft materials (lubricants, phase-change materials).

The candidates are expected to be active members of an international research group, contributing to planning and delivery of the project objectives and interacting with the industrial partner. Ideally, they will have an early track record of successful supervision of research students, reflected in good quality publications.

We welcome the applications from both new PhD graduates and experienced researchers. Please note, while we look to recruit as soon as possible, all appointees will be expected to work remotely on literature review and due diligence, until laboratories are accessible (subject to UK government/QUB guidelines).

For more information, reach out to Dr Swadzba-Kwasny (m.swadzba-kwasny@qub.ac.uk) or Prof Holbrey (j.holbrey@qub.ac.uk).

MAJOR DUTIES:

1. To contribute to chemistry and/or engineering aspect of allocated project.
2. To ensure good working order of reactors and analytical equipment, carry out routine maintenance and calibrations as required.
3. Develop and plan an area of personal research and expertise, and/or undertake research under supervision within a specific research project.
4. Supervise and train research students on day-to-day basis.
5. Carry out analyses, critical evaluations, and interpretations using methodologies and other techniques appropriate to area of research.
6. Prepare and present regular progress reports and presentations to members of the research group and to the industrial partner.
7. Prepare, in consultation with supervisor, materials for publication in scientific journals and conferences.
8. Assist grant holder in the preparation of funding proposals and applications to external bodies.
9. Carry out routine administrative tasks associated with the research project/s to ensure that project/s are completed on time and within budget. These might include organisation of project meetings and documentation, reports and presentations, financial control, risk assessment of research activities.
10. Carry out occasional undergraduate supervision, demonstrating or lecturing duties within the post holder's area of expertise and under the direct guidance of a member of academic staff.
11. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines.

Planning and Organising:

1. Plan for specific aspects of research programmes, based on timeline and milestones provided
2. Plan for the use of research resources, laboratories and workshops where appropriate.

3. Plan own day-to day activity within framework of the agreed research programme, as well as research activities of supervised students.
4. Plan up to a year in advance to meet deadlines for project deliverables.
5. Coordinate and liaise with other members of the research group over work progress.

Resource Management Responsibilities:

1. Ensure research resources are used in an effective and efficient manner.
2. Provide guidance as required to support staff and students involved in research.

Internal and External Relationships:

1. Liaise on a regular basis with academics, researchers and students involved in the project, and within the research group.
2. Liaise with the industrial partner as required, engaging in technical discussions to the extent agreed with the PI.
3. In regular and timely manner prepare presentations and reports for the industrial partner.

ESSENTIAL CRITERIA:

1. Have or be about to obtain a relevant PhD in Chemistry or Chemical Engineering.
2. At least 3 years of recent and relevant research experience in at least one of the following: reactive extractions, gas or liquid separations, synthesis of ionic liquids/covalent organic frameworks/main group coordination chemistry, or synthesis/formulations of soft materials (lubricants, phase-change materials).
3. Ability to carry out analyse, interpret and critically evaluate data, using a range of relevant techniques.
4. Ability to prepare journal papers and/or contribute to patent preparation.
5. Ability to supervise research students.
6. Ability to plan for specific aspects of research programmes at timescales of several weeks/months.
7. Contribute to planning research group activities at a similar scale.
8. Ability to communicate complex information clearly.
9. Ability to build contacts and participate in internal and external networks, including industrial partners.
10. Ability to present results to both technical and business audiences, in the form of reports and presentations, in a clear and professional manner.
11. Demonstrable intellectual ability.
12. Ability to assess and organise resources.
13. Ability to work well in an international, interdisciplinary environment.

DESIRABLE CRITERIA:

1. PhD degree and several years of PDRA or equivalent research experience
2. Experience with modelling software: TURBOMOLE, COSMOtherm, Spartan.
3. Publication and/or patent track record commensurate with the stage of career.
4. Willingness to carry out undergraduate supervision, as well as occasional demonstrating or lecturing duties within the post holder's area of expertise and under the direct guidance of a member of academic staff.
5. Ability to contribute to broader management and administrative processes in the context of leadership in a large industry-facing research project.