

Candidate Information

Position:	Research Fellow, School of Chemistry and Chemical Engineering
School/Department:	School of Chemistry and Chemical Engineering
Reference:	19/107456
Closing Date:	Tuesday 4 June 2019
Salary:	£33,199 - £39,610 per annum (potential to progress to £43,266 per annum through sustained exceptional contribution)
Anticipated Interview Date:	Friday 14 June 2019
Duration:	9 months

JOB PURPOSE:

The position is to undertake research in catalytic upgrading of waste biomass feedstocks to biofuels. In addition, the researcher will work in collaboration within the consortium supported by UK Catalysis hub.

MAJOR DUTIES:

1. To prepare heterogeneous catalysts and evaluate these systems for the upgradation of biomass to biofuels and chemicals under batch and flow conditions.
2. To work with the collaborators within the consortium.
3. Participate in the development of the research strategy for QUB Catalysis Cluster and Catalysis hub.
4. Normal duties will apply, including the preparation of reports and research/journal papers and assisting in supervision of PhD students.
5. Develop and plan an area of personal research and expertise, and/or undertake research under supervision within a specific research project or as a member of a research team.
6. Design, develop and refine experimental apparatus, field research or experiments in order to obtain reliable data.
7. Carry out analyses, critical evaluations, and interpretations using methodologies and other techniques appropriate to area of research.
8. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings.
9. Prepare, often in consultation with supervisor, material for publication in national and international journals and presentations at international conferences.
10. Assist grant holder in the preparation of funding proposals and applications to external bodies.
11. 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, financial control, risk assessment of research activities.
12. 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.
13. 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. Timescales range from 1-4 weeks in advance and contribute to research group planning.
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.
4. Plan up to a year in advance to meet deadlines for journal publications and to prepare presentations and papers for conferences.
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 any students who may be assisting with research.

Internal and External Relationships:

1. Liaise on a regular basis with colleagues and students.
2. Build internal contacts and participate in internal networks for the exchange of information and to form relationships for future collaboration.
3. Join external networks to share information and ideas.
4. Contribute to the School's outreach programme by establishing links with local community groups, industries etc.

ESSENTIAL CRITERIA:

1. BSc (Hons) or equivalent in Chemistry or Chemical Engineering or related subject.
2. Hold a relevant PhD in Chemistry or Chemical Engineering or a related subject.
3. At least 3 years relevant research experience.
4. Publication record commensurate with stage of career.
5. Recent and relevant experimental experience in heterogeneous catalysis for liquid phase reactions at postgraduate or postdoctoral level is required.
6. Ability to prepare journal and conference papers.
7. Ability to design, develop and refine experimental apparatus, field research or experiments in order to obtain reliable data.
8. Carry out analyses, critical evaluations, and interpretations using methodologies and other techniques appropriate to area of research.
9. Be prepared to supervise and interact with PhD students.
10. Demonstrate the ability to plan for specific aspects of research programmes. Timescales range from 1-4 weeks in advance and contribute to research group planning.
11. Ability to work effectively within a team, to include a technology Company.
12. Ability to communicate complex information clearly.
13. Ability to build contacts and participate in internal and external networks.
14. Demonstrate an excellent knowledge of written and spoken English, as required for report writing and presentations.
15. Demonstrable intellectual ability.
16. Ability to assess and organise resources.
17. Willingness to work for periods in other laboratories including industrial laboratories.
18. Willingness to travel and work in other locations in the UK.

DESIRABLE CRITERIA:

1. Experimental experience of hydrogenations in batch or flow reactors.
2. Ability to contribute to broader management and administrative processes.
3. Ability to contribute to the School's research team's outreach programme by links with industry and community groups etc.

ADDITIONAL INFORMATION:

The project will be undertaken within the multi-disciplinary Catalysis cluster at QUB and is funded by the UK Catalysis hub.

This is a unique opportunity for a dynamic and ambitious catalytic researcher with experience of the preparation and testing of heterogeneous catalysts at postgraduate or postdoctoral level to work in a leading centre of catalysis. The successful candidate will prepare heterogeneous catalysts and evaluate these systems for upgradation of waste biomass feedstocks to biofuels under batch and flow conditions. In addition, the researcher will work with the collaborators to design and scale up the process. The successful candidate will have the opportunity to work within a multi-disciplinary team of scientists, engineers from academe and industry.

We are offering generous terms and conditions of employment, a wide range of benefits and facilities, in a family friendly working environment. Belfast is one of Europe's most friendly and fashionable regional capitals. Referred to as a 'treasure with an incredible atmosphere' (National Geographic Traveller), Belfast is reported to be the second safest city in the world (United Nations). With the lowest cost of living in the UK (Mercer.com 2014), Belfast offers a variety of cultural, sporting, educational and social opportunities.

Our University has established itself as the leading university for promoting good employment practice for its female staff and has been involved with the Athena SWAN initiative from its inception. Queen's was one of the first of two universities to be recognised with an institutional Silver award in 2007, and all of our SET Schools currently hold SWAN awards at Silver level or above. We are an equal opportunities employer and welcome applications from all sections of society we particularly welcome applications from suitably qualified women as there is an under-representation of females in this subject area.