University of Nottingham
UK | CHINA | MALAYSIA

Role profile

Job title	Postdoctoral Research Associate/Fellow in Chemistry (Associate if starting before award of PhD)	Job family and level	Research and Teaching Level 4 (Level 4 Career training grade if starting before award of PhD)
School/ Department	School of Chemistry	Location	University of Nottingham, University Park

Purpose of role

Our research group is based in a series of laboratories in the Chemistry Building on the University Park Campus. Currently we have a range of projects focussed on developing the use of continuous photochemistry, electrosynthesis and thermal chemistry in multi-step processes to make complex molecules of value to the pharmaceutical and fine chemicals industries on a > 1 kg scale. This is being achieved by use of novel reactors designed and built in Nottingham. The purpose of this role is to provide expertise in organic chemistry to underpin the chemical aspects of these projects. The successful candidate will need to have skills in organic synthesis and the characterisation of the reaction products. Many of our projects are part of multidisciplinary grants which involve collaboration with research groups in industry and other universities. Therefore, the post may require occasional visits to these collaborators. The person appointed will join a multidisciplinary team working at the University of Nottingham in Chemistry and Engineering. All of the projects are led by Professor Mike George but some also involve Professors Sir Martyn Poliakoff and Pete Licence (Chemistry) and Professor Jon McKechnie and Dr Mirco Magnini (both in the Faculty of Engineering). The postholder will report to Professor Mike George and will undertake the development of new flow chemistry methodologies as directed by Professor Mike George.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	**% time per year**
1	To develop research objectives and proposals for own and/or collaborative research area.	15%
2	To plan and conduct research using recognised approaches, methodologies and techniques within the research area.	25%
3	To analyse and illuminate data, interpret reports, evaluate and criticise texts and bring new insights to research area.	10%
4	To write up research work for publication and/or contribute to the dissemination at national/international conferences, resulting in successful research outputs.	5%

5	To identify opportunities and assist in writing bids for research grant applications. Prepare proposals and applications to both external and/or internal bodies for funding, contractual or accreditation purposes.	5%
6	To build relationships with both internal and external contacts in order to exchange information, to form relationships for future collaborations and identify potential sources of funds and/or opportunities for collaboration.	5%
7	To co-ordinate the operational aspect of research networks, for example, arranging meetings and updating web sites etc and contribute to collaborative decision making with colleagues in area of research.	5%
8	To provide support, guidance and supervision to other staff, where appropriate in own area of expertise.	5%
9	To supervise undergraduate and/or postgraduate students projects, fieldwork and placements, as appropriate. To participate in the assessment of student knowledge and co-supervise projects at Masters level.	5%
10	To collaborate with academic colleagues on areas of shared interest for example, course development, collaborative or joint research projects.	5%
11	To plan and manage own research activity and resolve problems, if required, in meeting own/team research objectives and deadlines in collaboration with others.	5%
12	To utilise and contribute to organising research resources and facilities, laboratories and workshops as appropriate.	5%
13	To make a contribution to teaching, for example through laboratory demonstrations, lectures to postgraduate workshops and/or delivery of Level 1 modules.	5%

Person specifications

	Essential	Desirable
Skills	▪ Research experience in organic synthesis, use of NMR and other Analytical techniques (e.g. HPLC, etc.) ▪ Excellent oral and written communication skills, including the ability to communicate with clarity on complex information. ▪ High analytical ability to analyse and illuminate data, interprets reports, evaluate and criticise texts and bring new insights. ▪ Ability to creatively apply relevant research approaches, models, techniques and methods. ▪ Ability to assess and organise resource requirements and deploy effectively. ▪ Ability to build relationships and collaborate with others, both internally and externally with excellent teamworking skills ▪ Excellent organizational skills with ability to manage and complete projects to deadlines.	▪ Ability to foster a research culture and commitment to learn in others. ▪ Skills in Organic flow chemistry. ▪ Skills in continuous Organic Photochemistry and/or electrochemistry. ▪ Experience in advanced reactor development ▪ Experience in high pressure reactions, especially new-critical organic solvents.
Knowledge and experience	▪ Some practical experience of applying the specialist skills and approaches and techniques required for the role. ▪ Research experience in organic synthesis, use of NMR and other Analytical techniques (e.g. HPLC, etc.) ▪ A publication record in international peer-reviewed journals commensurate with stage of career. ▪ Experience in the preparation of detailed high quality experimental and spectroscopic data 'write ups' forming the backbone supporting information to research (journal) publications. ▪ Experience in use of research methodologies and techniques to work within area. ▪ Research at least at postgraduate level.	▪ Previous success in gaining support for externally funded research projects. ▪ Experience of developing new approaches, models, techniques or methods in research area. ▪ Experience in co-supervision of other research co-workers. ▪ Experience in advanced reactor development
Qualifications, certification and	▪ PhD or equivalent in synthetic organic chemistry or the	

training (relevant to role)	equivalent in professional qualifications and experience in research area. Applications accepted from applicants near completion of their PhD.	
Statutory, legal or special requirements		

The University of Nottingham is focused on embedding equality, diversity and inclusion in all that we do. As part of this, we welcome a diverse population to join our work force and therefore encourage applicants from all communities, particularly those with protected characteristics under the Equality Act 2010.

Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

Valuing people	Is friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
Taking ownership	Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
Forward thinking	Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
Professional pride	Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
Always inclusive	Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others