University of Nottingham
UK | CHINA | MALAYSIA

Role profile

Job title	Research Associate/Fellow	Job family and level	Research and Teaching Level 4
School/ Department	Faculty of Engineering – Advanced Materials Research Group	Location	Research Acceleration and Demonstration (RAD) Building, Jubilee Campus

Purpose of role

We are seeking a highly motivated Research Associate/Fellow to join the Hydrogen Research Group at the University of Nottingham. The successful candidate will become part of a multidisciplinary team of scientists and engineers working at the forefront of hydrogen materials research. The project will focus on the optimisation of metal and complex hydrides for both the synthesis and decomposition of ammonia. This is an important part of the MariNH3 project which is due to finish on 30th June 2027. We have accumulated significant data on metal and complex hydride systems including neutron studies such as QENS and INS. Here we are looking for suitable candidate who has expertise in both synthesis and characterisation and interpretation of such hydrides from these neutron studies. The post is a short term one (6 months).

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	**% time per year**
1	To plan and conduct research using recognised experimental approaches, methodologies and techniques including data processing and interpretation within the research area.	50%
2	To analyse and illuminate data, interpret reports, evaluate and criticise texts and bring new insights to research area.	15%
3	To write up research work for publication and/or contribute to the dissemination at national/international conferences, resulting in successful research outputs.	15%
4	To provide introductions, support, guidance and supervision to other staff.	10%
5	To provide supervision of UG/PGT project students and PhD students; training/mentoring for junior researchers; STEM outreach; being engaged with an interest group (examples Engineering Research Futures, researcher groups, BME Staff Network, Ignite EDI Network+)	5%
6	Miscellaneous: You may occasionally be asked to perform other duties which are not included in the above but appropriate to the grade and consistent with the role	5%

Person specification

	Essential	Desirable
Skills	• Proven research skills, especially in experimental materials science • Ability to analyse and write up data • Excellent communication and presentation skills • Excellence at writing in the English language • Well organised and self-motivated, able to work independently and as part of a team	
Knowledge and experience	• Knowledge and experience synthesis and characterization of metal and complex hydrides • Knowledge and experience of using hydrogen and ammonia in synthesis and characterization of hydrides • Experience with generating characterisation data using (1) neutron diffraction; (2) QENS (3) Synchrotron X-ray diffraction; • Experience of analysing data using Full proof and other packages related to neutron studies • Experience with interpretation of relevant experimental data	
Qualifications, certification and training (relevant to role)	• PhD or about to obtain (or equivalent) in an appropriate field (e.g. Chemistry, Physics or Materials Science, or a related discipline)	

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

