



## THE POST

<b>College:</b>	<b>College of Engineering, Mathematics and Physical Sciences</b>
<b>Post:</b>	<b>Postdoctoral Research Fellow</b>
<b>Reference No:</b>	<b>P70131</b>
<b>Grade:</b>	<b>F</b>
<b>HERA:</b>	<b>RFEL</b>
<b>Reporting To:</b>	<b>Dr. Yongde Xia and Prof. Yanqiu Zhu</b>

### Job Description

#### **Main purpose of the job:**

The post will include the screening and development of porous oxide-based multifunctional catalyst and membrane reactors for carbon dioxide conversion to fuels and separation of fuels. The successful applicant will be able to present information on research progress and outcomes, communicate complex information orally, in writing or electronically, and prepare proposals and applications to external bodies. The successful applicant will also be able to work collaboratively, supervise the work of others and act as team leader as required. Applicants need to have a deep expertise in porous materials, membranes and catalysis, both in theoretical and practical. It's essential the candidates have good health & safety management skill and wide experience working with industry, together with a proficiency in using a wide range of materials characterisation techniques.

#### **Main duties and accountabilities:**

1. To undertake research as appropriate to the field of study. The responsibilities may include all or some of the following:
  - Acting as principal investigator on research projects;
  - Developing research objectives, projects and proposals;
  - Conducting individual or collaborative research projects;
  - Identifying sources of funding and contributing to the process of securing funds;
  - Extending, transforming and applying knowledge acquired from scholarship to research and appropriate external activities;
  - Writing or contributing to publications or disseminating research findings using media appropriate to the discipline;
  - Making presentations at conferences or exhibiting work in other appropriate events;
  - Assessing, interpreting and evaluating outcomes of research;
  - Developing new concepts and ideas to extend intellectual understanding;
  - Resolving problems of meeting research objectives and deadlines;
  - Developing ideas for generating income and promoting research area;
  - Developing ideas for application of research outcomes;
  - Deciding on /following research programmes and methodologies, often in collaboration with colleagues and sometimes subject to the approval of the head of the research programme on fundamental issues.
2. To contribute to teaching and learning programmes in the School and to supervise postgraduate research students.
3. To act as research team leader including:

- Mentoring colleagues with less experience and advising on their professional development;
  - Coaching and supporting colleagues in developing their research techniques;
  - Supervising the work of others, for example in research teams or projects;
  - Developing productive working relationships with other members of staff;
  - Co-ordinating the work of colleagues to ensure equitable access to resources and facilities;
  - Dealing with standard problems and help colleagues to resolve their concerns about progress in research.
4. To routinely communicate complex and conceptual ideas to those with limited knowledge as well as to peers using high level skills and a range of media and to present the results of scientific research to sponsors and at conferences.
5. As determined by the nature of the project and at the direction of the PI, to plan, co-ordinate and implement research programme activity including:
- Managing the use of research resources and ensuring that effective use is made of them;
  - Monitoring and reporting on the use of research budgets;
  - Helping to plan and implement commercial and consultancy activities;
  - Where appropriate, to plan and manage own consultancy assignments.

This job description summarises the main duties and accountabilities of the post and is not comprehensive: the post-holder may be required to undertake other duties of similar level and responsibility. Please visit the Human Resources website to view the Research Fellow role profiles.

#### **Person Specification**

<b>Competency</b>	<b>Essential</b>	<b>Desirable</b>
Attainments/Qualifications	PhD or equivalent qualification/experience in porous materials, membranes and catalysis.	Be a nationally recognised authority in the subject area.
Skills and Understanding	Possess sufficient specialist knowledge in the discipline to develop/follow research programmes and methodologies. Record of research output in high quality publications.  Good health & safety management skill.	Evidence of successful track record in high impact publications.  Specialist knowledge in the field of porous materials and membranes  Skills in managing research teams.
Prior Experience	Previous post-doc level experience.  Wide experience in health & safety management.  Experience of managing large EU projects that involving many partners, progress reports, organising project meetings.  Wide experience working with industry.	Experience of undergraduate / postgraduate teaching and supervision.  Experience of acting as principal investigator on research projects.
Behavioural Characteristics	Excellent written and verbal communication skills. Able to communicate complex and conceptual ideas to a range of groups.  Evidence of the ability to collaborate actively within the Institution and externally to complete research projects and advance thinking.  Able to participate in and develop external networks.	Able to identify sources of funding, generate income, obtain consultancy projects, or build relationships for future activities.  Strong communicator with national and international members/groups..

	<p>Able to balance the pressures of research, administrative demands and competing deadlines.</p> <p>An understanding of the importance of equality and diversity within an organisation and a commitment to helping create an inclusive culture.</p>	
Circumstances	Able to work flexibly to achieve project demands.	

**Informal Enquiries**

Before submitting an application you may wish to discuss the post further by contacting Dr. Yongde Xia ([y.xia@ex.ac.uk](mailto:y.xia@ex.ac.uk), telephone: 01392 723683) or Prof. Yanqiu Zhu ([y.zhu@ex.ac.uk](mailto:y.zhu@ex.ac.uk), telephone: 01392 723620).

**Terms & Conditions**

Our Terms and Conditions of Employment can be viewed [here](#).

**Further Information**

Please see our [website](#) for further information on working at the University of Exeter.