



IMPACT

Postdoctoral Research Associate in Low Carbon Hydrogen Production (biomass gasification)

Reference: 0806-23

Grade: 8

Salary: £37,099 to £40,521 per annum depending on experience

Contract Type: Fixed term (2 years) until 1 April 2026

Basis: Full-time

Job description

Job Purpose:

The researcher will contribute to the Supergen Bioenergy Impact Hub, undertaking experimental work on the area of “Low carbon hydrogen production”. The researcher will mainly work using a lab-scale gasification system for hydrogen production from biomass conversion. The researcher will conduct laboratory-based experimental work and will be required to set-up and manipulate a wide range of analytic equipment.

The researcher will regularly meet and liaise with colleagues to ensure appropriate input, data sharing, and effective dissemination of results. As such, he/she will be expected to draft and submit high-quality papers, technical reports and contribute to grant funding applications to sustain continuous research group funding. The research associate will also be expected to engage and participate in project meetings and other relevant activities organised by the Supergen Bioenergy Hub.

Main duties and responsibilities

Research

- ▶ To be capable of setting-up and manipulate experimental reaction systems, with focus on lab-scale gasification or biomass thermal conversion.
- ▶ To manipulate analytic equipment for characterisation of gas, solid and liquid samples and be able to extract, process and interpret results.
- ▶ To be able to create high-quality graphs, tables, and figures using experimental data to ease understanding.
- ▶ To develop methodologies for the synthesis of novel metal-based catalysts.
- ▶ To report on progress by producing high-quality outputs including technical reports and manuscripts for publication in peer reviewed journals.

External engagement

- ▶ To communicate research findings by preparing posters and delivering oral presentations at relevant National and International conferences.
- ▶ To engage with partners and participate in the Supergen Bioenergy Hub meetings and events.

Additional responsibilities

- ▶ Undertake experimental work using good laboratory practices and following Health and Safety (H&S) recommendations.
- ▶ Engage in continuous personal and professional development in line with the demands of the role, including undertaking relevant training and development activities to develop themselves and support the development of others.
- ▶ Engage with the research community at the Energy & Bioproducts Research Institute (EBRI).
- ▶ Ensure and promote the personal health, safety and wellbeing of staff and students.
- ▶ Promote equality of opportunity and support diversity and inclusion as well as working to support the University’s environmental sustainability agenda and practices.

Person specification

	Essential	Method of assessment
Education and qualifications	<p>A first degree in Chemical Engineering or a closely related area.</p> <p>A PhD in a relevant subject; a pending PhD qualification is permissible.</p>	Application form
Experience	<p>Experience in initiating and conducting research at a doctoral level.</p> <p>To have a robust understanding and knowledge in thermochemical conversion of biomass.</p> <p>Experience using analytic equipment for the characterisation of gas, solid, and liquid samples.</p> <p>Experience writing up and/or contributing to the write up of high-quality publications.</p> <p>Experience working in a laboratory environment and conducting research following health and safety regulations.</p>	Application form and interview
Aptitude and skills	<p>Clear oral and written communication skills.</p> <p>Good organisational skills.</p> <p>Ability prepare and submit high quality written outputs in set deadlines.</p> <p>Ability to extract, process and present experimental and analytic data in both a clear and concise manner that is visually appealing to diverse technical and non-technical audiences.</p> <p>Willingness to take training to adopt new procedures as required.</p>	Application form and interview

	Essential	Method of assessment
	Willingness to work as part of a team and support others.	

	Desirable	Method of assessment
Education and qualifications	PhD in Chemical Engineering or related subjects.	Application form
Experience	<p>Previous experience in the following is desirable:</p> <ul style="list-style-type: none"> ▶ Hands-on experience using experimental equipment for thermochemical conversion of biomass (combustion, pyrolysis, gasification) ▶ Synthesis and characterisation of metal-based catalysts. ▶ Knowledge and manipulation of analytic techniques such as: TGA, elemental analyser, bomb calorimeter, XRD, porosimeters, ICP-OES, SEM, TEM, GC, GC-MS, HPLC, FTIR ▶ Design and/or commissioning of experimental equipment. ▶ Knowledge and understanding on hydrodynamics linked to fluidised bed systems and process optimisation. ▶ Previous experience in supervising other people involved in a research project. ▶ Producing or contributing to peer review publications linked to thermochemical conversion of biomass, ideally using catalysts. 	Application form and interview

How to apply

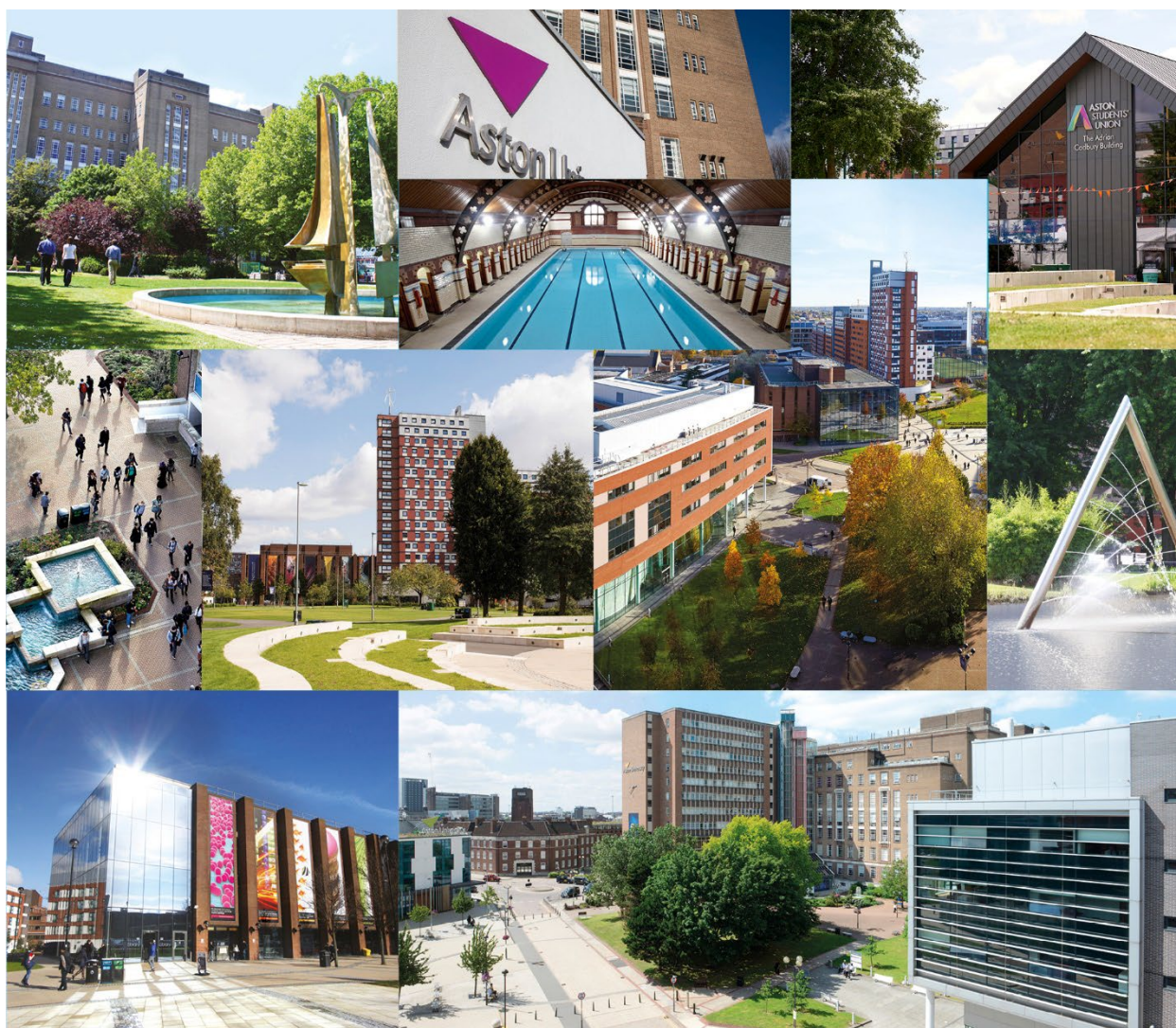
You can apply for this role online via our website <https://www2.aston.ac.uk/staff-public/hr/jobs>.

Applications should be submitted by 23.59 on the advertised closing date.

All applicants must complete an application form, along with your CV.

Any CV sent direct to the Recruitment Team and Recruiting Manager will not be accepted.

If you require a manual application form then please contact the Recruitment Team via jobs@aston.ac.uk.



Contact information

Enquiries about the vacancy:

Name: Paula Blanco Sanchez

Job Title: Senior Lecturer

Email: p.blanco-sanchez@aston.ac.uk

Enquiries about the application process, shortlisting or interviews:

Recruitment Team via jobs@aston.ac.uk or 0121 204 4500.

Additional information

Visit our website <https://www2.aston.ac.uk/staff-public/hr> for full details of our salary scales and benefits Aston University staff enjoy

Salary scales: <https://www2.aston.ac.uk/staff-public/hr/payroll-and-pensions/salary-scales/index>

Benefits: <https://www2.aston.ac.uk/staff-public/hr/Benefits-and-Rewards/index>

Working in Birmingham: <https://www2.aston.ac.uk/birmingham>

Employment of Ex-Offenders: Under the Rehabilitation of Offenders Act 1974, a person with a criminal record is not required to disclose any spent convictions unless the positions they applying for is listed an exception under the act.

Eligibility to work in the UK:

Non-British/Irish citizens moving to the UK to work will need to apply for a visa in advance. You can find more information about visas for work on the gov.uk website [here](#).

Before applying for this role, you should ensure that you meet the requirements, including meeting the English Language requirements. If you do not meet the eligibility criteria, any application for a work visa would be unsuccessful.

The most common types of visa to work in the UK are:

Skilled Worker Visa

<https://www.gov.uk/skilled-worker-visa>

Global Talent Visa

If you are a leader or potential leader in one of the following fields, you may be eligible to apply for a Global Talent Visa:

- Academia or Research
- Arts and Culture
- Digital Technology

You can find information about the Global Talent Visa on the gov.uk website [here](#), and on the Royal Society website [here](#).

You can also find further information about work visa options on our website [here](#).

Equal Opportunities: Aston University promotes equality and diversity in all aspects of its work. We aim to ensure, through our admissions policies for students, and our staff recruitment and selection processes that we encourage applications from all groups represented in the wider community at a local, national and international level.

The University will endeavour not to discriminate unfairly or illegally, directly or indirectly, against student or potential students, staff or potential staff. This commitment applies to all functions of the University and to any stage of an individual's career.

An Equal Opportunities Monitoring Form is included within the application form. Data you provide on the Equal Opportunities Monitoring Form will be included in a general database, for statistical monitoring purposes, enabling the University to monitor the effectiveness of its Policy, Codes of Practice and Guidelines on Equal Opportunities in Employment. Individuals will not be identified by name.

Data Protection: Your personal data will be processed in compliance with the Data Protection Act 2018 and the General Data Protection Regulation ((EU) 2016/679) ("GDPR"). The University's Data Protection Policy and Privacy Notices, including the Job Applicant Privacy Notice can be found at <https://www2.aston.ac.uk/data-protection>. Your application will only be used to inform the selection process, unless you are successful, in which case it will form the basis of your personal record with the University which will be stored in manual and/or electronic files. Information in statistical form on present and former employees is given to appropriate outside bodies.

Full details of our terms and conditions of service and associated policies and procedures are available online at <https://www2.aston.ac.uk/staff-public/hr/policies>

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gets real.**