



OPPORTUNITY

Where change
gets real.



Reference: 0563-25

Grade: 8

Salary: £41,064 per annum, depending on experience

Contract Type: Fixed Term (12 months or until 30/09/2026)

Basis: Full Time

Job description

Job Purpose:

The PDRA will have skills and training in physico-chemical characterisation in relation to biochars produced via the pyrolysis of biosolids generated from the Wastewater Treatment plants (including sewage sludge and digested solids). Specifically, the PDRA will be using existing facilities and methodologies at Aston and other methodologies they will develop to analyse different components in biochar samples. Sample preparation for analysis will follow standard procedures such as the EBC Sample preparation (ISO 13909-4, DIN 51701-3). Characterisation of the biochar samples will be against national and international standards. As a reference to international standards, the PDRA will be characterising the biochars following the European Biochar Certificate Standard 10.4E. In addition, the PDRA will carry out chemical characterisations of different organo-mineral fertilisers produced from the biochars and supplied by a project partner. Furthermore, following soil trials, the PDRA will work with stakeholders to develop analytical protocols for the sampling, storage, transportation and characterisation of land-applied organo-mineral fertilisers. Working with Aston investigators, the project lead (Severn Trent) and relevant project partners, the PDRA will be tasked to organise partner meetings and prepare draft reports and other relevant documentation to disseminate research outcomes.

Main duties and responsibilities

- ▶ Conduct research on the physico-chemical characterisation of biosolids from wastewater treatment processes (e.g. sewage sludge and digested solids), as well as biochars produced via pyrolysis.
- ▶ Follow standard procedures such as the **EBC Sample Preparation** (ISO 13909-4, DIN 51701-3) and the **EBC Standard 10.4E** for preparation and characterisation of solid samples.
- ▶ Carry out chemical characterisation of various organo-mineral fertilisers derived from biochars, supplied by a project partner.
- ▶ Following soil trials, support the development of analytical protocols for the sampling, storage, transport, and analysis of land-applied organo-mineral fertilisers.
- ▶ Collaborate with Aston investigators, the project lead, and partner organisations to organise project meetings and contribute to the preparation of reports and other materials to communicate research outcomes.

Additional responsibilities

- ▶ 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.
- ▶ Ensure and promote the personal health, safety and wellbeing of staff and students.
- ▶ Carry out duties in a way which promotes fairness in all matters and which engenders trust.
- ▶ 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	A PhD in Analytical/Environmental Chemistry, Chemical Engineering, Environment Engineering, or a related discipline.	Application form
Experience	<p>Research experience in preparation and characterisation of biochar samples for various parameters</p> <p>Practical familiarity with the European Biochar Certificate Standard 10.4E.</p> <p>Hands-on expertise in environmental chemistry of organo-mineral fertilisers or solid substances with similar matrices.</p> <p>Familiarity the organo-fertiliser application to soils and experience in the characterisation of organo-mineral fertilisers before and after soil application.</p> <p>Ability to apply and/or modify existing characterisation techniques based on stated project requirements as well as ability to develop relevant new techniques within a short period of time.</p> <p>Ability to manage multiple research tasks within a structured timeline.</p>	Application form and interview
Aptitude and skills	<p>Strong problem-solving skills, applying scientific principles to experimental work.</p> <p>Excellent data analysis skills, including statistical interpretation of experimental results.</p> <p>Ability to work both independently and as part of a team in a research environment.</p>	Application form and interview

	Essential	Method of assessment
	<p>Strong written and verbal communication skills, with experience in research dissemination.</p> <p>Ability to engage with academic and industry stakeholders to support project goals.</p> <p>Commitment to laboratory safety, ethical research practices, and data integrity.</p>	

	Desirable	Method of assessment
Education and qualifications	PhD in Chemistry, Applied Chemistry, Environmental Chemistry, Analytical Chemistry or closely related subject.	Application form
Experience	<p>Experience in characterisation of biosolids, biochar and organo-mineral fertilisers in relation to their environmental chemistries.</p> <p>Previous involvement in multidisciplinary research projects, demonstrating collaboration across scientific fields.</p> <p>Prior involvement in industry collaborations, or applied research projects related to biosolids, biochars and their applications.</p> <p>Experience in supervising or mentoring junior researchers.</p> <p>A track record of grant writing or contributing to/developing research proposals.</p> <p>Prior involvement in leading research dissemination events such as workshops, seminars, or industry engagements.</p>	Application form and interview

	Desirable	Method of assessment
Aptitude and Skills	<p>Strong project management skills, ensuring timely progress and efficient research coordination.</p> <p>Ability to write technical reports and papers for publication in high-impact research papers and technical reports.</p> <p>International research exposure or participation in collaborative projects with global research groups.</p>	Application form and interview

University values

All staff are expected to demonstrate/promote the University's values and expectations, which are an integral part of our strategy and underpin the culture of the University. In addition, our leaders are expected to be accountable, help to execute strategic visions of the University and share and set clear expectations that inspire those around them.



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 23.59pm 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 recruitment@aston.ac.uk.

Contact information

Enquiries about the vacancy:

Name: Jude Onwudili

Job Title: Professor of Chemical Engineering

Email: j.onwudili@aston.ac.uk

Enquiries about the application process, shortlisting or interviews:

Recruitment Team via recruitment@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: [Benefits and Rewards | Aston University](#)

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: You should ensure that you meet the eligibility requirements, including meeting the [English language standards](#). If you do not meet the eligibility criteria, any application for a work visa would be unsuccessful. Please see UKVI guidance for further information on eligibility, knowledge of English requirements and approved test centres <https://www.gov.uk/tier-2-general>

With the end of free movement for EU/EEA/Swiss nationals from 1 January 2021, the UK's new immigration system applies to all non-UK/Irish nationals who require a visa.

Where an individual is subject to UK immigration control, they will require a visa to work in the UK.

The following individuals do not need a visa for the UK, but do still have to prove their right to work before employment can commence:

- **British Citizens or Irish Nationals**
- **EU/EEA/Swiss nationals with Settled or Pre-settled status under the EU Settlement Scheme**
- **Non-EEA nationals with Indefinite Leave to Remain/Settlement in the UK**

The main routes available for those who need a visa to work in the UK are **Skilled Worker**, **Global Talent** and the **Graduate Route**.

You can find further information about each of these visa routes on our candidate immigration page.

If you will conduct research in your role, you may need to apply for and obtain ATAS clearance before Aston can issue a Certificate of Sponsorship for your visa application. Please see below for further details.

Academic Technology Approval Scheme (ATAS):

If you will conduct research in your role and you apply for a Skilled Worker or Temporary

Worker GAE visa, you may need to apply for and obtain ATAS clearance before Aston can issue a Certificate of Sponsorship for your visa application.

This process can take at least 6 weeks to process, and Aston will consider this when confirming your expected start date. Processing times will increase between April and September and can longer to complete.

There is no fast-track option available. ATAS certificates will be processed in order of receipt.

You can find more information about ATAS on our candidate immigration page.

Before you start and Right to Work

90-day entry vignette

If you have applied for your visa outside of the UK, you will receive a vignette in your passport which is usually valid for 90 days. Please make sure to travel to the UK within the 'valid from' and 'valid to' dates on this visa. If you entered the UK before or after these dates, you would not 'activate' the visa and you would need to leave and re-enter the country.

You will also receive a decision letter confirming details about your immigration permission and where to collect your Biometric Residence Permit.

Cost of Living - Estate and Letting Agents

There are numerous Estate and Letting Agents in and around Birmingham that can help you find suitable accommodation. The Midland Landlord Accreditation Scheme provides a list of professional agencies and landlords who have applied with them for accreditation. Whilst accreditation is not a guarantee of quality, it provides some reassurance about the standard of the service they provide.

You can also use property search websites such as Rightmove or Zoopla.

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>

Aston University
Birmingham
B4 7ET, UK.
+44 (0)121 204 3000

www.aston.ac.uk