

Job Description

Job title: Research Fellow in Textile Chemistry

Faculty of Technology, Arts and Culture, School of Design Innovation

Grade: F

Role profile: Research Fellow

Full time, 2 Year Fixed-Term Contract (29th February 2028)

	Duties of the role
Overall purpose of the role	<p>To undertake research according to the requirements of the EPSRC funded project on the development of an innovative fluorine-free amphiphobic coatings on textiles to achieve soil/liquid repellent fabrics with long term durability.</p> <p>The research work will be involved in the development of PFAS (fluorine)-free nanocoating technology with enhanced soil/liquid repellent functionality for the application on textiles.</p> <p>The work is part of a collaborative project. The ability to work with other people, sharing tasks as required, is essential.</p>
Main duties and responsibilities	<p>Carrying out research work proposed in the work packages of EPSRC funded project which will be involved in the development of an innovative fluorine-free amphiphobic coatings on textiles for self-cleaning and contamination prevention functionality.</p> <p>Liaising with research colleagues.</p> <p>To work with project partners to develop metal-organic framework (MOF) / covalent organic framework (COF) based coating to achieve soil and liquid repellent fabrics,</p> <p>To characterise and test the performance of coated fabrics,</p> <p>To optimise the batchwise and continuous coating processes to develop the prototypes of self-cleaning and soil-repellent textile fabrics,</p> <p>Working with industry to produce fluorine-free soil-repellent fabric within the UK.</p> <p>Recording work, writing and presenting reports at meetings and contributing to publications.</p> <p>Supporting management of the project.</p> <p>Other duties may be required according to the needs within the School.</p>

	Duties of the role
	<ul style="list-style-type: none">• Promote and exhibit DMU values and be a role model for the university's code of conduct.• Perform any other duties commensurate with the job grade as reasonably required from time to time.• Treat all DMU staff, students, contractors and visitors with dignity and respect. Provide a service that complies with the Equality Act 2010, eliminating unlawful discrimination, advancing equality of opportunity and fostering good relations with particular attention to the protected characteristics of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief (or none), sex and sexual orientation.• All members of staff are responsible for their contribution to improved environmental performance and in reducing greenhouse gas emissions at DMU. It is therefore required that all members of staff are aware of how the Environmental Policy relates to their own role at the University. Staff conduct must reflect the values inherent in the Environmental Policy and where required staff must cooperate with Environmental Policy and where required staff must cooperate with environmental compliance and conformance requirements to help minimise our emissions to air, water and land.

Person Specification

Job title: Research Fellow in Textile Chemistry

Faculty of Technology, Arts and Culture, School of Design Innovation

Grade: F

Role profile: Research Fellow

Full time, 2 Year Fixed-Term Contract (29th February 2028)

Area of responsibility	Requirements	Essential or desirable		*Method of assessment			
				A	I	T	D
Qualifications & Training	An honours Degree in Textile Technology, Chemistry, Polymer Science or other appropriate scientific discipline	Essential					X
	Postgraduate qualification in a related area	Essential					X
	PhD degree in a related area		Desirable				X
Previous Work Experience	Experience of completing research and development tasks	Essential		X			
	Significant research and development experience in an industrial or academic environment	Essential		X			
	Experience of using analytical equipment for fibre or fabric characterisation		Desirable		X		
Specific Knowledge, Skills, Motivation and Abilities Required	Knowledge of natural and synthetic fibres or polymers	Essential		X	X		
	Knowledge of textile finishing or surface coating		Desirable		X		
	Experience of basic statistical methods of data analysis.	Essential			X		
	Inventiveness and interest in resolving non-standard problems, carrying out		Desirable	X			

Area of responsibility	Requirements	Essential or desirable		*Method of assessment			
				A	I	T	D
	research.						
	Excellent observational skills.	Essential		X			
	Knowledge and understanding of textile wet processing and evaluation methodology		Desirable	X	X		
	Ability to carry out complex tasks reliably and accurately without constant supervision.	Essential		X			
	Self-motivated and able to respond quickly under pressure.	Essential		X			
	A proven ability to work to deadlines.	Essential		X	X		
	Good communication, IT and report writing skills.	Essential			X		
	Excellent interpersonal team-working skills.	Essential		X	X		

***A = Application Form; I = Interview; T = Test; D = Documentary Evidence**