



Salary: 35,000- 46,000 depending on experience

+ A Personal Development budget of £3,000

Reference: CSRIS1336

Based at Rheon Labs, Hewlett House, 1 Broughton St, London, SW8 3QJ

Fixed Term for 18 months

Closing date: 29 August 2024

Research Scientist in Advanced Fibres (Knowledge Transfer Partnership), School of Design, Faculty of Arts Humanities and Culture & Rheon Labs

Do you hold an MSc or PhD in Material Science/Engineering, Textile technology, or a related field? Do you have a strong background in polymer processing and characterisation with experience of working in a research lab or experience working with the production and testing of polymer fibres? Would you like to work with a leading materials company to develop novel fibres for elite performance apparel?

The University of Leeds has an opportunity for you to 'fast track' your career in industry by leading a project to develop and prototype advanced strain-rate-sensitive fibres designed to provide innovative sportswear to athletes and active consumers. Through a Knowledge Transfer Partnership (KTP), you will be working in collaboration with a sector leading materials company, Rheon Labs, and Leeds University's School of Design.

As a KTP Associate, you will be expected to manage this project and effectively transfer knowledge from the academic knowledge base at The University of Leeds to Rheon Labs. You will be working closely with academics in the School of Design and Rheon Lab's scientific team to bridge knowledge gaps in fibre and yarn processing to enable the commercialisation of the innovative fibres for their uses in performance footwear or garment industries.

Rheon Labs is an innovative company whose groundbreaking energy-absorbing super polymer technology provides ultimate functionality for athletes and companies that require its unique properties as part of their product suite. Rheon Lab's reputation as an industry leader is growing each day with partners including Its partners include Adidas, Rapha, Harley Davidson, and many more. This is an exciting opportunity to work within industry and to develop your skills at an established and forward thinking organisation.



Duties and Responsibilities

- Create and implement a personal development plan that includes training in project management, fibre extrusion technology, and data analysis. Attend KTP residential modules and conferences.
- Develop a detailed action plan, including a Gantt chart, risk register, and task lists. Establish a Project Steering Group involving key stakeholders.
- Conduct a comprehensive literature review on suitable polymers and their applications based on the objectives of this project. Perform a market analysis and investigate the IP landscape.
- Design experiments for the formulation of new masterbatch polymers and their fibre extrusion processes to optimize fibre structure and properties to meet desired product performance requirements.
- Perform fibre spinning trials using fibre extrusion equipment of varying sizes. Fine-tune polymer formulations and processing variables to optimize fibre properties such as diameter, shape, and strain rate sensitivity.
- Utilize suitable analytical techniques such as SEM and XRD Characterize the structure and relevant properties of masterbatch polymers, their components and corresponding fibres. Update databases with mechanical, thermal, and rheological properties of these components.
- Analyse data to propose improvements and ensure desirable properties are achieved.
- Update SOPs, protocols, and repositories. Train technical staff at RHEON Labs in sample preparation, material characterization, and data interpretation.
- Generate and present reports on polymer properties, market analysis, and project progress. Prepare scientific manuscripts and present findings at national and international conferences.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What are the benefits of being a KTP Associate?

- All KTP Associates spend 10% of their time on Personal Development, making full use of a £3,000 PD budget



- Access to two residential training sessions aimed at developing project management skills
- Opportunity to gain both management and academic experience
- Potential to fast-track a career in industry
- Access to a wealth of academic resources
- Access to a Travel & Subsistence and Consumables budget
- Access to mentoring sessions through Innovate UK

Qualifications and Skills

Essential:

- Either an MSc or a PhD degree in Material Science/Engineering, Textile technology or a related field;
- Proficiency in common polymer processing techniques, melt-extrusion processing in particular, demonstrated through hands-on experience in processing and characterization;
- Expertise in cutting-edge data acquisition and processing methods, including relevant software;
- Strong analytical skills and understanding of Design of Experiment (DOE);
- Project management skills, showcasing the ability to organise and oversee various project tasks, timelines, and budgets;
- Effective communication and dissemination abilities;
- Skills in recording and presenting scientific data;

Desirable:

- Experience in fibre development and melt-spinning of textile fibres;.
- Exposure to apparel and garment testing.

How to apply

You can apply for this role online; more guidance can be found on our [How to Apply](#) information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date.



Contact information

To explore the post further or for any queries you may have, please contact:

ACADEMIC SUPERVISOR

[Professor Ningtao Mao](#) / Professor of Fibre and Textile Technology

Email: N.Mao@leeds.ac.uk;

[Professor Muhammad Tausif](#) / Professor of Sustainable Textile Manufacturing

Email: M.Tausif@leeds.ac.uk

COMPANY SUPERVISOR

Jared Ide / Senior Polymer Process Engineer

Email: jared.m.ide@rheonlabs.com

Project Coordinator

James Hartford / Innovation Support Coordinator (University of Leeds)

Email: J.Hartford@leeds.ac.uk

Additional information

Find out more about the [Faculty of Arts, Humanities and Culture](#)

Find out more about the [School of Design](#)

Find out more about [Athena Swan in Faculty](#)

Find out more about [Rheon Labs](#)

Find out more about [Innovate UK](#)

Interview location

Details will be provided should you be successfully shortlisted for an interview.

Working as a KTP Associate at Leeds

You will be an employee of the University of Leeds and will have access to University facilities. However, you will be based at the company premises, working to



their terms. You will have access to the University's USS pension scheme, with generous employer contributions.

A diverse workforce

The Faculty of Arts Humanities and Culture has received a prestigious Athena SWAN Bronze award from [Advance HE](#), the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study.

Working at Leeds

Find out more about the benefits of working at the University on our [Working at Leeds](#) information page.

Faculty and School Information

Further information is available on the research and teaching activities in the links contained within the text above.

Candidates with disabilities

Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at disclosure@leeds.ac.uk. The post is located at the company premises. Candidates with disabilities wishing to review access to the building are invited to contact James Hartford (Research and Innovation Service), J.Hartford@Leeds.ac.uk.

Criminal record information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

