The University Of Sheffield.

Job Reference Number: UOS037718

Job Title: Research Associate in Mechanical Properties of Battery Materials

Contract Type: Fixed-term to 30.09.2024

Working Pattern: Full time

Faculty: Faculty of Engineering

Department: Department of Materials Science & Engineering

Salary: Grade 7
£36,333 to £44,414 per annum

Closing Date: 28th July 2023

Summary:

We have an exciting opportunity in the Department of Materials Science and Engineering for a Research Associate who will work on a Faraday Institution funded project, 'FutureCat', to develop cathode materials for next generation lithium batteries. Working with Prof Beverley Inkson and Dr Innes McClelland you will contribute to a project involving the synthesis, structural characterisation and property measurement of battery materials.

The successful candidate will bring expertise in mechanical properties and advanced microscopy to analyse a range of battery materials based on complex metal oxides. Experience of micromechanical testing and electron microscopy methodologies will be required to evaluate the mechanical resilience of cathode materials with novel compositions/cation-ordering patterns/electrochemical histories across a range of crystallographic structures. Knowledge of related characterisation techniques such as FIB/ X-ray Tomography and/or transmission electron microscopy would be advantageous.

The successful candidate will liaise with project partners across five institutions to bring together advanced processing, property measurement and characterisation of the novel cathode systems. Previous experience of battery materials and testing may be advantageous, but is not a requirement and your skills will be developed by interactions within the project consortium. Applications are strongly invited from candidates who come from outside the energy materials area who can apply their skills in mechanical testing to benefit the challenges of battery materials development.

If you have a PhD in a relevant subject and expertise in advanced transmission electron microscopy (TEM) for materials characterisation, then we would love to hear from you.

We're one of the best not-for-profit organisations to work for in the UK. The University's Total Reward Package includes a competitive salary, a generous Pension Scheme and annual leave entitlement, as well as access to a range of learning and development courses to support your personal and professional development.

We build teams of people from different heritages and lifestyles from across the world, whose talent and contributions complement each other to greatest effect. We believe diversity in all its forms delivers greater impact through research, teaching and student experience.

To find out what makes the University of Sheffield a remarkable place to work, watch this short film: www.youtube.com/watch?v=7LblLk18zmo, and follow @sheffielduni and @ShefUniJobs on Twitter for more information.

Apply now by clicking on the Apply button located near the top left of your screen.