

Research Scientist (Modelling and Data Analytics)

OXIS Energy is a world-leading developer of next-generation batteries based on Lithium Sulfur (Li-S) chemistry, which has the potential to offer revolutionary improvements to the energy density of energy storage systems. OXIS' cells offer twice the energy density of the incumbent Li-ion technology, and are therefore attractive for a diverse range of applications such as for electric vehicles, unmanned aerial vehicles (UAVs) and satellites.

Based within a technical business park in the beautiful Oxfordshire countryside, OXIS is proud to have a highly-experienced international R&D department with a strong collaborative attitude and shared goal of developing the "next big thing" in energy storage technology.

We are looking for a research scientist to join our dedicated R&D team. Reporting to the lead of the modelling and data analytics group, the successful applicant will be involved in a range of activities, primarily focussed on further developing techniques for characterising Lithium-Sulfur cell performance, working to better understand the underlying behaviour and how this is affected by, for example, alterations to the cell design or production methods. The role will also include the development of software tools to facilitate data processing, both within R&D as well as across the wider company.

For a candidate with a suitable background and experience, for example from a research project or postgraduate study, there is also scope for involvement in our electrochemical modelling activities.

The role would provide the opportunity to develop a variety of skills in the processing and analysis of data, working with relatively small but complex datasets, in the context of supporting the development of OXIS' battery technology. The ideal candidate would be able to demonstrate a general understanding of battery technology and would have some knowledge of programming in the context of data analysis.

Main Responsibilities:

- Analyse and interpret experimental data, leading to proposals for improving cell Li-S development and production methods.
- To develop and improve upon current data collection methods.
- To build and maintain in-house software tools for analysing and processing data.
- To identify and undertake further ad-hoc analyses as required by the company needs.

Skills and Experience:

- Minimum degree-level educated in a highly numerate science or engineering subject.
- An understanding of the factors affecting the behaviour and performance of an electrochemical cell.
- Knowledge of writing and maintaining computer code (we currently use MATLAB, Origin and/or VBA, but there is scope for using alternatives where appropriate).
- Strong communication skills and the ability to present data coherently to a range of audiences, both verbally and in writing.
- Competent in the use of Microsoft Office products for presenting and analysing data.

Desirable Skills

- Knowledge of methods for performing life cycle analysis (LCA) and interpretation of the outputs
- For involvement in our modelling activities, experience with using FEM for describing continuum reaction-diffusion type systems (or similar) is desirable, using COMSOL Multiphysics.

A competitive salary is on offer plus excellent company benefits including 25 days holiday, 5 paid carers' days, life assurance, contributory pension and private healthcare.