



Postdoc position on multi-physics continuum modelling of solid-state batteries

General Description: Applications are invited for a postdoctoral position at Imperial College London. The project will involve conducting multi-physics finite element simulations to understand the chemo-mechanical behaviour of solid-state Li-Ion batteries. Solid-state batteries are arguably the most exciting development in energy storage technology, allowing for significant improvements in both energy and power densities. The postdoc will be integrated into a large multi-institution project involving the universities of UCL, St Andrews and Imperial College London, as well as industrial partners (Ilika, Nexeon). The postdoc will be based at Imperial College London, working together with the [Mechanics of Infrastructure Materials Lab](#), led by Dr Emilio Martínez-Pañeda, and the [Electrochemical Science and Engineering group](#) (Prof Greg Offer, Dr Monica Marinescu).

Requirements:

- A PhD in engineering, mathematics, physics, materials science, or other closely-related disciplines.
- Enthusiasm and hands-on attitude
- Excellent English writing and communication skills
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In addition, a competitive candidate for this role should demonstrate one or several of the following desirable (non-essential) qualifications:

- Experience in finite element modelling
- Experience in multi-physics modelling
- Experience in the use of COMSOL Multi-physics
- Experience in modelling coupled chemo-mechanical problems at the continuum scale
- Experience in computational mechanics

The contract duration will be of 2 years. Salary: £43,093 – £50,834 per year. Interested applicants are encouraged to submit their applications as soon as possible, as reviewing of applications will start immediately.

How to apply: Applicants wishing to be considered for these opportunities should send the following application documents to Dr Emilio Martínez-Pañeda (e.martinez-paneda@imperial.ac.uk)

- CV
- Cover letter, explaining their motivation and suitability
- Contact details of two academic referees

For further details, informal discussions and information about the project please contact Dr Emilio Martínez-Pañeda at e.martinez-paneda@imperial.ac.uk