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Postdoctoral Researcher on cathode composites for advanced Li-ion batteries

Description

The energy storage and harvesting group announces a new position to work in the framework of the "COBRA" project devoted to the development and production of cobalt free batteries for future automotive applications. The European research project COBRA is an ambitious project which aims to cover to whole value chain of next generation Li-ion batteries, from battery components to pack design and testing.

Requirements

We are looking for excellent and highly motivated candidates with a PhD in Materials Science (or similar) with expertise on Li-ion batteries. The selected candidate will be focused on the cathode component, studying the electrical and electrochemical performance of electrodes based on Li-rich oxides with formula $x\text{Li}_2\text{MO}_3.y\text{LiMO}_2$ (M= Metal) containing no cobalt and operating at high voltage versus Li metal. The work will be conducted in close collaboration with consortium partners aiming to develop 1) new green manufacturing processes for the electrodes and 2) high energy cells able to withstand high current rates. During the course of the project, it is expected that the candidate demonstrates experience on material characterization (x-ray diffraction scanning electron microscope, conductivity measurements...), electrode formulation and casting, coin-cell assembly, electrochemical testing using different electrolytes and/or additives, electrochemical impedance spectroscopy analysis using 3-electrode or symmetric cells as well as full-cells. Previous experience on post-mortem analysis using x-ray photoelectron spectroscopy will be valued.

In addition to laboratory work described above, the selected candidate will summarize results in the form of deliverables and oral presentations for the consortium. Therefore, the candidate should have good communication and project management skills and she/he must be fluent in English, results-oriented and a team player. It is also expected relevant project results to be published in peer-reviewed journals.

What we offer

We offer a 2-year contract starting January 2020. The salary will be paid in accordance with the IREC's salary policy, depending on the candidate's qualifications and professional experience.

How to apply

Please, send applications by email directly to HR office (irecjobs@irec.cat) before 31st of December, 2019. Please indicate "**Postdoctoral Researcher on cathode composites for advanced Li-ion batteries**" as subject and attach your CV including your academic and professional records. A motivation letter is also welcome.