CATHODE MATERIAL ENGINEER

Company Description

No matter which country you're in, the transition from an economy based on fossil fuels to one based on sustainable energy sources is well underway. It takes slightly different approaches, and it progresses from different starting points depending on the area, but it's clear, we're all engaged in a global shared "electrification" challenge. At BASQUEVOLT our mission is to develop sustainably the best battery materials and cells that will make possible the mass deployment of electric transportation, stationary energy storage and advanced portable devices. Our proprietary solid-state battery technology will allow us to develop and commercialise safe, high performance and affordable products for a diverse portfolio of customers, from mobility, stationary energy storage and consumer electronics.

Information

Deadline: 2023-01-13
Category: Business
Province: Araba / Álava
Country: Basque Country
City: Vitoria-Gasteiz

Company

BASQUEVOLT

Main functions, requisites & benefits

Main functions

JOB DESCRIPTION The Cathode Material Engineer is responsible for the development of Basquevolt's cathode materials to be implemented in solid-state and semi solid-state cells. We are actively searching for a highly qualified engineer who would bring strong Li-ion battery material background, solid work ethic and personal integrity to our dedicated fast paced dynamic environment. The cathode material engineer will work closely with the R&D director to develop an efficient solid-state and semi solid-state battery. In particular, the successful candidate will possess strong experience in development, characterization of cathode active materials for lithium batteries from R&D to production scale-up. Reporting directly to the R&D director, s/he will be responsible for: Leading cathode development to achieve project goal and on-time milestone deliverables. Building the supplier's network for cathode active materials. Improving cathode/semi solid and solid-state electrolyte interface at high voltage. Developing cathode material for fast charging in semi solid and solid-state battery configurations. Optimizing cathode formulation, loading and density for cell optimum performance. Understanding cathode failure modes during semi solid and solid-state battery cycling and storage. Analysing cathode active material interfacial behaviour with semi solid and solid-state electrolytes. Conducting electrode design, proof of concept DOE, down selection, process scale up and materials/semi product analysis whilst studying of various cathode materials and their technical roadmaps and strategy. Working with cell design, semi solid-state, solid-state engineers, and material suppliers to develop Basquevolt's cathode in design compatibility and prospect for promising suppliers in business-wise perspective. Identifying and generating new ideas to strengthen intellectual properties, by developing your own as well as the group's expertise in this field, exploring new techniques and contribute to the growth of the knowledge domain. Working closely with the prototype testing manager to organize DOE at pouch cell level. Organizing material characterization together with the material qualification manager. The Cathode Material Engineer is expected to work as a key team member within the R&D team to develop further Basquevolt's IP and provide innovative solutions to increase energy density and safety of Li-ion cell technology.

Requisites

We are looking for a highly skilled and motivated individual capable of taking up this challenging opportunity to develop an ambitious project. Applicants should have a high degree of initiative and should be open to intense interdisciplinary collaboration, first in an early-stage start-up but moving progressively to an efficient mid-size organisation. The Cathode Material Engineer should have experience in the development of lithium-ion battery cathode materials, ideally within a corporate organization. In particular, experience developing cathode materials with solid-state and semi solid-state electrolytes is a plus. Specifically, we will assess expertise in the following aspects: MSc, PhD in electrochemistry, chemical engineering, or materials science, in particular in the field of lithium batteries and related electrochemical systems. >2 years industrial experience in the area of cathode material development, qualification, and deep understanding of the challenges associated with the cathode/solid or semi-solid electrolyte interface. Strong Hands-on laboratory experience. Some experience in risk analyses, including Design Failure Mode and Effect Analysis (DFMEA) to