

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. To this end, we offer the position of Anode Material Engineer (Lithium Metal).

Information

 **Deadline:** 2023-01-13
 **Category:** Business
 **Province:** Araba / Alava

 **Country:** Basque Country
 **City:** Vitoria-Gasteiz

Company

BASQUEVOLT



Main functions, requisites & benefits

Main functions

The Anode Material Engineer (Lithium Metal) is responsible for the development of Basquevolt's anode material used in solid-state and semi solid-state battery. We are actively searching for a highly qualified engineer who can bring strong lithium metal battery background, solid work ethic and personal integrity to our dedicated fast paced dynamic environment. The anode material engineer will work closely with the R&D director to develop an efficient solid-state and semi solid-state battery. Reporting directly to the R&D director, s/he will be responsible for: Leading lithium metal anode development to achieve project goal and on-time milestone deliverables. Providing technical direction for the electrochemical development of lithium metal pouch cells. Leading implementation of solutions to improve lifetime and performance. Developing technical roadmaps and strategy. Improving lithium metal anode stability with semi solid and solid-state electrolytes. Developing lithium anode material for improved charging capabilities in semi solid and solid-state battery configurations. Understanding lithium metal anode failure modes during semi solid and solid-state battery cycling and storage. Analysing anode interfacial behaviour with semi solid and solid-state electrolytes. Validating and optimizing formation and cycle life testing protocols. Working with cell design, semi solid-state electrolyte, and solid-state electrolyte engineers and material suppliers to develop lithium metal anode materials & electrodes 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 Anode Material Engineer (Lithium Metal) 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 Anode Material Engineer (Lithium Metal) should have experience in the development of lithium metal battery anodes, ideally within a corporate organization. Specifically, we will assess expertise in the following aspects: MSc, PhD in electrochemistry, chemical engineering, and/or materials science, in particular in the field of lithium batteries and related electrochemical systems. >2 years industrial experience in the area of lithium metal anode material development, qualification, with deep understanding of the challenges associated with the use of lithium metal anodes. Understanding of lithium metal anode electrochemical behaviour and interfacial behaviour with semi solid- and solid-state electrolytes. Experience in risk analyses, including Design Failure Mode and Effect Analysis (DFMEA) to define risks and carry out root cause analysis. Experience with battery testing design of experiments and in particular in qualifying lithium metal anodes in various