

Eastern Europe Battery Anode Material Project

What is a graphite anode project?

The loan will finance an integrated graphite anode project powered by renewable energy, to produce low emission intensity anodes supporting green battery manufacturing in Europe. The objective of the project is to contribute to the global green transformation of transportation, the EU battery value chain and EU resource independence.

Can a 8,000 TPA Silumina anodes battery coating plant be built in Germany?

A Definitive Feasibility study for the construction of a 8,000tpa Silumina Anodes battery materials coating plant in Germany has been completed with robust project economics: On 25 November 2021, Altech announced a significant breakthrough in lithium-ion battery technology by its R&D laboratory based in Perth, Western Australia.

How did Altech develop a lithium-ion battery electrode?

To achieve its breakthrough, Altech successfully used silicon particles that had been treated with its innovative proprietary technology to produce a lithium-ion battery electrode. When energised, these materials held 30% more capacity compared to a conventional graphite only anode material.

Will high-purity alumina be used in electric vehicle battery anodes?

The R&D is focused on coating of high-purity alumina (HPA) on silicon, for inclusion within electric vehicle battery anodes. A 2020 public statement by US electric vehicle manufacturer Tesla, stated that its aim is to increase the amount of silicon in its batteries to achieve step-change improvements in energy density and battery life.

How good is Altech lithium ion battery anode?

Altech's lithium-ion battery anode material averaged energy retention capacity of ~430 mAh/g, compared to a normal lithium-ion battery anode at around 330 mAh/g, being 30% higher. Importantly, the Altech batteries demonstrated good stability and cycling performance.

What is Silumina anodes TM?

Based on Altech's test work, its Silumina Anodes TM product is expected to provide for the manufacture of battery anodes, that when incorporated into a lithium-ion battery result in a battery that has higher energy retention capacity by volume and weight, compared to a battery using the incumbent graphite only battery anode.

The project GR4FITE3 aims to reach graphite resilience for lithium-ion battery anodes through a sustainable European end-to-end supply chain. This supply chain includes environmentally responsible mining of natural crystalline flake ...

The EU-funded GR4FITE3 project aims to establish a sustainable end-to-end supply chain for European industrial graphite and carbon products. This is specifically targeted ...

FEASIBILITY STUDY FOR SILUMINA ANODES TM BATTERY MATERIALS PROJECT Highlights o
Highly positive preliminary feasibility study for 10,000tpa Silumina AnodesTM ...

Its segments include Silumina Anodes, CERENERGY, High Purity Alumina (HPA), and Corporate. The Silumina Anodes project involves coating silicon with a nanometre ...

This enables use of our electrodes in (i) continued battery use in scenarios where charging or replacement is difficult or impossible, such as in pacemaker batteries that currently need to be ...

According to Professor Jorma Jokiniemi from the University of Eastern Finland, it is important that raw materials available directly from the Finnish mining industry can be utilised in the aerosol ...

UK recycler Altilium expanding to provide "fully circular" model for Li battery materials British recycling firm Altilium is building up its operations to a "fully circular" model ...

electrode containing 10% metallurgical silicon in the anode of the battery. When energised, these materials held greater than 30% more capacity compared to a conventional graphite only ...

The EU-funded SPICY project aims to develop a more powerful, cheaper, safer, lighter, long-lasting eco-friendly Li-ion battery, which will meet the needs of EV drivers. The project is addressing production processes and the whole value ...

The objective is to reach 2000 deep cycles by (i) reducing the surface reactivity of the active materials by a combination of novel film-forming electrolyte additives and active ...

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