

Aluminum foil and energy storage power station





Overview

Why should we use copper & aluminum composite foils in energy storage?

At the same time, the raw material price of aluminum is much lower than that of copper, which can lead to a reduction in the raw material cost of the battery. Therefore, copper-aluminum composite foils are expected to be applied in the energy storage field that prioritizes high energy density and lightweight over excellent cycling performance.

Why are metal foils used as current collectors important?

While substantial progress has been made in the exploration of active materials and battery electrolytes, innovation is also necessary in the metal foils used as current collectors, which are crucial for electron transport between the electrode and external circuits.

What is a 5 μm aluminum foil substrate used for?

Briefly, a 5 μm aluminum foil of grade 1235, purchased from Dare Global, was used as the substrate. The aluminum foil substrate was initially pretreated with a mixture of NaOH, Na₂CO₃, and detergent to remove oil and dirt, and to prevent surface contamination for the subsequent plating process.

Can aluminum be used as a starting material for rolled foils?

The resulting aluminum is used as the starting material for producing rolled foils. The cost of aluminum is relatively low (Table 1 and Fig. 1), but if an electrolytic Al foil process with inert anode, i.e. a direct foil production process is implemented in society, it would cut the material cost further.



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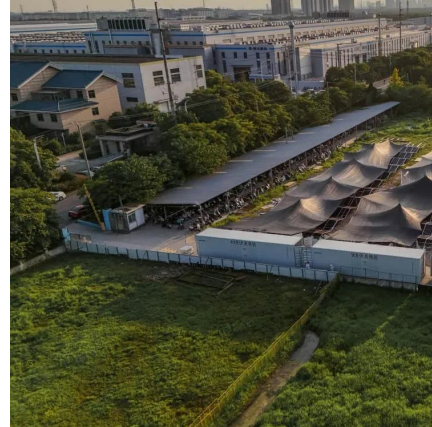


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