

Li-Ion & Li-Metal Cells Current Collectors (Copper, Aluminium, CNT, Coated) Market Review

In order for the battery to have an acceptable capacity, the active material is almost always a thick layer of porous, particulate paste, and the electronic conductivity of this material is seldom very high. Hence it is necessary to have a current collector, which is usually a metal grid or sheet, to provide a conducting path through the electrode material and thereby minimize the resistance of the battery. The current collector also acts as a physical support for the active mass which otherwise would be a very brittle structure.

Clearly, the current collector must be stable to chemical attack by both electrolyte and active material, and this limits the choice of material.

Most of the current collectors are non-coated one but today there are new coated current collector that provide better performance over the non-coated.

Traditionally on Li-Ion cells the Anode current collector is made from Copper in a thickness of 8-25um and the cathode current collector is made from Aluminum in a thickness of 12-25um – We can find today new materials like CNT that can replace the heavy traditional current collector and provide a better performance.

Report Content

Introduction

Current collector academic research – 1 University work review

Current collector developers & Manufacturers

- Non coated copper current collectors – 25 companies review
- Coated copper current collectors – 4 companies review
- Non coated Aluminium current collectors – 12 companies review
- Coated Aluminium current collectors – 7 companies review
- Non coated Nickel current collector – 1 company review
- New current collectors' materials – 3 companies review

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Research files type: Power Point

** We do a custom-made market report per demand

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