A reflection on lithium ion battery cathode

With the award of the 2019 Nobel Prize in Chemistry to the development of lithium-ion batteries, it is enlightening to look back at the evolution of the cathode chemistry that made the modern lithium-ion ...

Here, Professor Arumugam Manthiram looks back at the evolution of cathode chemistry, discussing the three major categories of oxide cathode materials with an emphasis on the fundamental solid-state chemistry that ...

Solid-state lithium-ion batteries are gaining attention as a promising alternative to traditional lithium-ion batteries. By utilizing a solid electrolyte instead of a liquid, these batteries offer the potential for ...

With the award of the 2019 Nobel Prize in Chemistry to the development ...

This review article provides a reflection on how fundamental studies have facilitated the discovery, optimization, and rational design of three major categories of oxide cathodes for lithium-ion batteries, and a personal ...

The first chapter presents an overview of the key concepts, brief history of the advancement in battery technology, and the factors governing the electrochemical performance metrics of battery ...

Among the various components involved in a lithium-ion cell, the cathodes (positive electrodes) currently limit the energy density and dominate the battery cost.

Web: https://www.religio.es