# Article information:

Carbon neutrality strategies for sustainable batteries: from structure, recycling, and properties to applications - Energy & Environmental Science (RSC Publishing)
<https://pubs.rsc.org/en/content/articlelanding/2023/ee/d2ee03257k>

# Article summary:

1. This article discusses the current state of lithium-ion battery recycling and proposes possible recycling technologies for future energy storage batteries.

2. It evaluates the highly promising new generation of future energy storage batteries from multiple dimensions and outlines the challenges and future directions for the advancement of key material recycling technologies.

3. The article also proposes initiatives to shift to carbon neutrality in order to achieve efficient and green recycling of lithium secondary batteries.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is written by a team of researchers from Beijing Institute of Technology, Advanced Technology Research Institute, and Collaborative Innovation Center of Electric Vehicles in Beijing, which provides credibility to the research presented in the article. The authors provide a comprehensive explanation of the current lithium secondary battery recycling techniques using an organic tetrahedron structure–recycle–property–application, which is a reliable approach for evaluating such technologies. Furthermore, they evaluate highly promising new generation of future energy storage batteries from multiple dimensions and propose possible recycling technologies based on the current state of lithium-ion battery recycling and recycling theory.

The article does not appear to be biased or one-sided as it presents both sides equally with regards to potential risks associated with lithium secondary battery recycling. It also does not contain any promotional content or partiality towards any particular technology or approach. However, there are some missing points that could have been explored further such as potential environmental impacts associated with different types of battery recycling techniques, economic considerations related to these techniques, etc. Additionally, there is no evidence provided for some of the claims made in the article such as “achieving their efficient and green recycling is not only a strategic requirement for the development of an ecological civilization but also a practical assurance for the secure supply of resources” which could have been supported by data or research findings from other sources.

# Topics for further research:

* Environmental impacts of lithium-ion battery recycling
* Economic considerations of lithium-ion battery recycling
* Ecological civilization development and lithium-ion battery recycling
* Secure supply of resources and lithium-ion battery recycling
* New generation of energy storage batteries
* Lithium-ion battery recycling technologies

# Report location:

<https://www.fullpicture.app/item/505ac1dd7fe66757ddc04d3422018f54>