# Article information:

Comprehensively analysis the failure evolution and safety evaluation of automotive lithium ion battery - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S2590116821000382>

# Article summary:

1. The energy crisis, environmental pollution, and greenhouse gases are urgent global problems that are largely caused by the consumption of fossil fuels by vehicles.

2. Electric vehicles (EVs) have been introduced to mitigate these problems, but EV fire and explosion accidents have been reported frequently.

3. Lithium-ion batteries (LIBs) are widely used as power sources in EVs due to their advantages, but extreme abuse conditions can lead to thermal runaway or fire of LIBs.

# 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 provides a comprehensive analysis of the failure evolution and safety evaluation of automotive lithium ion batteries. The article is well-structured and provides an overview of the current state of electric vehicles (EVs), their potential benefits, and the risks associated with them. It also outlines the various standards/regulations used to evaluate battery system safety and provides a detailed description of how lithium-ion batteries can fail under extreme abuse conditions.

The article is generally reliable and trustworthy, as it cites relevant research studies to support its claims. However, there are some potential biases in the article that should be noted. For example, while it does mention some potential risks associated with EVs such as fire and explosion accidents, it does not provide any information on possible solutions or strategies for mitigating these risks. Additionally, while it does provide an overview of different standards/regulations used to evaluate battery system safety, it does not explore any counterarguments or alternative approaches that could be taken when assessing battery system safety.

In conclusion, this article provides a comprehensive analysis of the failure evolution and safety evaluation of automotive lithium ion batteries that is generally reliable and trustworthy; however, there are some potential biases that should be noted when considering its content.

# Topics for further research:

* Electric vehicle safety strategies
* Alternative approaches to battery system safety evaluation
* Mitigation of lithium-ion battery risks
* Fire and explosion prevention for EVs
* Regulations for lithium-ion battery safety
* Research on lithium-ion battery failure evolution

# Report location:

<https://www.fullpicture.app/item/87c28cf3013f43dc173c32978f6b0dc1>