

The battery cabinet was deformed





Overview

An important deformation mode during ground impacts of battery packs made of cylindrical battery cells is axial compression. This type of loading subjects the cell to a complex deformation pattern and failure mechanism.

What is the deformation mode of a battery pack?

An important deformation mode during ground impacts of battery packs made of cylindrical battery cells is axial compression. This type of loading subjects the cell to a complex deformation pattern and failure mechanism. The design of endcaps plays an important role in such deformations.

Why are lithium ion battery cells prone to axial deformation?

1. Introduction Cylindrical lithium ion battery cells have been a major power source for Electric Vehicles like Tesla Model S. The vertical configuration of these cells in the floor mounted battery packs make them prone to axial deformation in case of a ground impact.

What is the separator of 18650 battery cell made of?

The separator of the studied 18650 is made of polyethylene (PE) . Fig. 1. Composition of the 18650 battery cell (a) 18650 battery cells; (b) safety valve; (c) jellyroll; (d) shell casing; (e) sub-components of the safety valve structure; (f) anode; (g) cathode; (h) separator.



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Slightly deformed battery casing of 100AH 12v agm battery.

The battery was like this from day 1 of purchase. its about 2 and a half years old and hasn't changed even with some light to moderate use. mainly being on standby/float at 13.5v or ...

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