

The impact of high temperature of base stations on batteries





Overview

Does high temperature affect battery performance?

High temperature not only degrades battery performance but also reduces battery safety. High temperature will accelerate battery capacity degradation.

What is the evolution mechanism of battery thermal safety under high-temperature conditions?

Under high temperature conditions, the cyclic aging and calendar aging tests are performed. After the tested battery decays to different aging levels, thermal runaway tests and multi-angle characterization tests are conducted to clarify the evolution mechanism of battery thermal safety under high-temperature conditions.

Does high-temperature aging affect the performance of lithium-ion batteries?

ABSTRACT: High-temperature aging has a serious impact on the safety and performance of lithium-ion batteries. This work comprehensively investigates the evolution of heat generation characteristics upon discharging and electrochemical performance and the degradation mechanism during high-temperature aging.

Does high temperature affect battery degradation?

In general, high-temperature environment could induce the decomposition of electrolytes and the transfer of electrode structure; therefore, aggravates battery degradation [14, 25]. In addition, it can be found that both a high cycle rate and low cycle rate would exacerbate battery degradation; finally, the optimal cycle rate is obtained at 2C.



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