

Mini review

## A Brief Review of Post-Lithium-Ion Batteries

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Energy storage is an extremely important problem today. Among the most efficient batteries, lithium-ion occupy a special place. Lithium is the most active known reducing agent. It has a huge energy storage resource. 1 kg of lithium is capable of storing 3860 ampere-hours. However, lithium-ion batteries have almost reached their limits and are characterized by a high cost, which raises the question of the further development of such technologies based on the so-called post-lithium-ion batteries. This paper provides an overview of post-lithium-ion batteries such as lithium-oxygen batteries, sodium-ion batteries, lithium-sulfur batteries and their comparison with known lithium-ion batteries. The commercialization of post-lithium-ion batteries is also discussed.

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**Keywords:** Lithium-ion batteries; Lithium-oxygen batteries; Sodium-ion batteries; Lithium-sulfur batteries; Post-lithium-ion batteries

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