

# New colloidal energy storage battery

## APPLICATION SCENARIOS



## Overview

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In a new study recently published by Nature Communications, the team used K-Na/S batteries that combine inexpensive, readily-found elements — potassium (K) and sodium (Na), together with sulfur (S) — to create a low-cost, high-energy solution for long-duration energy storage. Developments in batteries and other energy storage technology have accelerated to a seemingly head-spinning pace recently — even for the scientists, investors, and business leaders at the forefront of the industry. After all, just two decades ago, batteries were widely believed to be destined for. Columbia Engineering scientists are advancing renewable energy storage by developing cost-effective K-Na/S batteries that utilize common materials to store energy more efficiently, aiming to stabilize energy supply from intermittent renewable sources. Their unique characteristics offer several advantages including 1. High efficiency in energy conversion, 2. Improved safety compared to traditional batteries, 3. This article explores the technology's breakthroughs, real-world applications, and why it's becoming a game-changer for EV manufacturers and energy storage solutions. Batteries can be either mobile, like those in electric vehicles, or stationary, like those needed for utility-scale.

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