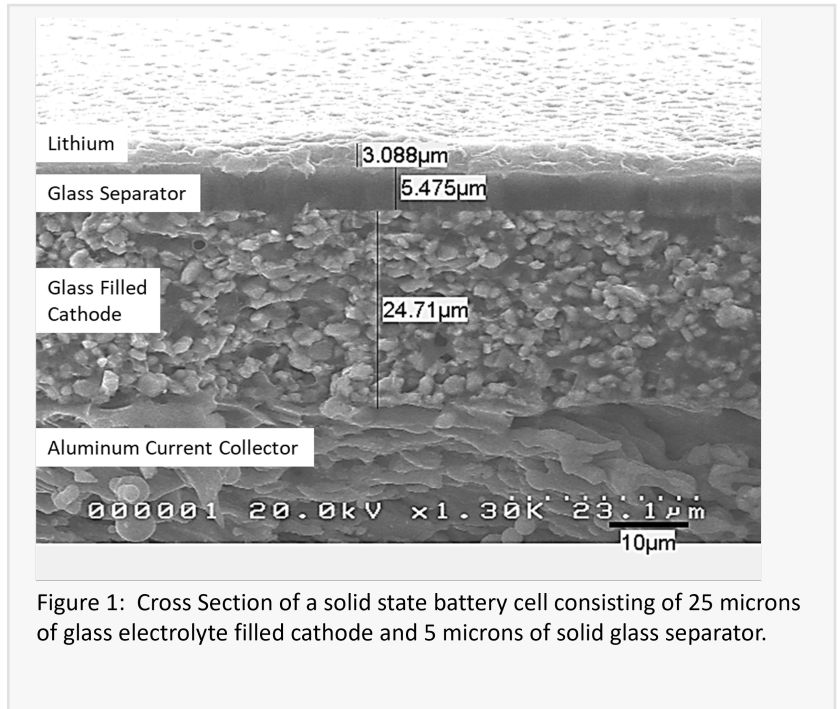


Johnson Energy Storage Unveils Solid State Batteries with Industry-Leading 5 Micron Separator

Ultra-Thin Glass Separator Doubles Performance

ATLANTA, GA, UNITED STATES, November 16, 2023 / EINPresswire.com/ -- In a groundbreaking advancement in battery technology, [Johnson Energy Storage](#) today unveiled its latest solid-state battery featuring an unprecedented 5-micron glass separator. This technological leap, achieved through a proprietary low-cost manufacturing process, is a significant step towards more reliable and efficient energy storage solutions.



The new solid-state batteries, characterized by their thin glass separator, exhibit reduced cell resistance and enhanced performance, particularly at lower temperatures—a notable improvement over conventional lithium-ion batteries. This advancement is a direct result of the company's innovative glass infiltration process, which has been refined to produce remarkable results.

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This is a critical breakthrough in enabling solid state batteries to compete in the marketplace.”

Bill Rauch, VP of Research at Johnson Energy Storage

Unlike traditional batteries that rely on highly flammable liquid electrolytes, Johnson Energy Storage's batteries are entirely solid-state, using the unique ion-conducting properties of glass. This structure not only eliminates the risk of flammability but also incorporates lithium metal plating at the anode, doubling the energy density compared to current market offerings.

“Creating a solid electrolyte that is in direct contact with the active cathode was our first challenge. Since achieving this, we have advanced our fabrication process to reliably create an ultra-thin separator in the same process” said Bill Rauch, VP of Research at Johnson Energy Storage. “This is a critical breakthrough in enabling solid state batteries to compete in the marketplace.”

The company's pioneering approach significantly undercuts the thickness of traditional polymer-based separators, which are typically over 5-times as thick and saturated with liquid electrolyte. By employing a lithium metal anode and eliminating the need for graphite or silicon, Johnson Energy Storage's batteries not only cut down on volume, weight, and cost but also promise unparalleled safety and energy density.

Johnson Energy Storage is rapidly advancing towards commercializing this cutting-edge solid-state battery technology. With its glass-based electrolyte and cost-effective production methods, the company is poised to redefine energy storage standards and bring a superior battery solution to the market.

To learn more about Johnson Energy Storage and the research behind their all-solid-state-battery, please visit www.johnsonenergystorage.com.

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About Johnson Energy Storage

Johnson Energy Storage (JES) is a cutting-edge technology company dedicated to transforming the way the world stores energy. Our team of experts is committed to developing innovative solutions that will make energy storage safer, more efficient, more affordable, and more sustainable. We believe that our all-solid-state battery technology will be a step towards realizing this goal. JES is dedicated to leaving a softer footprint wherever we tread and to making a positive impact on the environment.

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