QuantumScape Achieves Major Milestone: Cobra Separator Process Enters Baseline Production

June 24, 2025

Achieves Key 2025 Goal, Bringing its Technology Closer to Commercialization

SAN JOSE, Calif.--(BUSINESS WIRE)-- QuantumScape Corporation (NYSE: QS), a global leader in next-generation solid-state lithium-metal battery technology, today announced a major milestone in the scale-up of its production capabilities: the successful integration of its advanced Cobra separator process into baseline cell production.

Cobra forms the foundation of QS's high-throughput, continuous-flow separator production platform. Designed to enable faster, more energy-efficient production with a smaller equipment footprint compared to earlier processes, Cobra represents a step-change improvement in ceramic separator manufacturing. Compared to the prior-generation Raptor process, Cobra offers a ~25x improvement in heat treatment speed and occupies a fraction of the physical space per film start – key advantages in the design of a scalable gigafactory production line.

"Our team has made impressive strides in advancing Cobra, a technology that exemplifies our progress in scaling solid-state battery production," said Dr. Siva Sivaram, QS CEO. "By significantly improving throughput and shrinking the equipment footprint, Cobra gives us a powerful path forward for commercializing our next-generation battery technology."

"Cobra is a step-change innovation in ceramic processing, enabling a major improvement in productivity compared to Raptor — which was already a considerable advancement compared to the previous generation," said Tim Holme, QS co-founder and CTO. "This advancement is central to bringing our high-performance solid-state battery platform to market at gigawatt scale."

The Cobra platform replaces the company's Raptor process, which was used for B0 cell production and delivered important gains in separator quality and process stability. With Cobra in place as the new baseline, QS will continue to improve its production speed, efficiency and scalability, laying the groundwork for higher-volume B1 sample production. These production metrics are expected to further improve as the company introduces future iterations of Cobra.

About QuantumScape Corporation

QuantumScape is on a mission to revolutionize energy storage to enable a sustainable future. The company's next-generation solid-state lithium-metal battery technology is designed to enable greater energy density, faster charging and enhanced safety to support the transition away from legacy energy sources toward a lower carbon future. For more information, visit www.quantumscape.com.

Forward-Looking Statements

Certain information in this press release may be considered "forward-looking statements," within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including, without limitation, statements regarding the company's plans and objectives for future operations and growth, the performance of its technology and its applications, including Cobra, and the potential impacts of the company's technology, among others. These forward-looking statements are based on management's current expectations, assumptions, hopes, beliefs, intentions and strategies regarding future events and are based on currently available information as to the outcome and timing of future events. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely upon forward-looking statements as predictions of future events. The events and circumstances reflected in the forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements, including due to the building out of processes to scale solid-state battery production, the achievement of the speed, quality, consistency, reliability, safety, cost and throughput required for developing products for commercialization, changes in economic and financial conditions, and other factors, including those discussed in the section titled "Risk Factors" in our Annual Report and Quarterly Reports and other documents filed with the Securities and Exchange Commission from time to time. Except as otherwise required by applicable law, the company disclaims any duty to update any forward-looking statements.

media@quantumscape.com

Source: QuantumScape Corporation