



Factorial Introduces Solstice™, an All-Solid-State Battery with Mercedes-Benz as a Key Customer and Development Partner

September 10, 2024

- This represents a breakthrough in battery technology innovation to advance EV safety and performance
- Developed in partnership with Mercedes-Benz, Factorial's all-solid-state battery Solstice™ achieves a high energy density that can extend EV range up to 80% and unlocks a more sustainable, energy-efficient, and cost-effective battery production process
- Solstice™ is expected to be available to customers in the electric mobility and consumer electronics industries by the end of the decade



WOBURN, Mass.--([BUSINESS WIRE](#))--Factorial Inc. (Factorial), an industry leader in solid-state battery technology, announced today the introduction of Solstice™, an all-solid-state battery that can revolutionize the safety, performance, and sustainability of the next generation of electric vehicles (EVs). Solstice™ is set to achieve a breakthrough energy density of up to 450Wh/kg and incorporates a novel dry cathode design for more efficient and sustainable production. Solstice™ complements Factorial's industry-leading FEST® (Factorial Electrolyte System Technology) for automotive and other electric mobility applications while expanding Factorial's total addressable market to include consumer electronics. Solstice™ was developed in collaboration with Mercedes-Benz as part of their ongoing partnership, demonstrating a shared commitment to continuous innovation.

Solstice™ enables industry-leading performance and safety for electric mobility and Factorial expects the technology to be introduced by OEMs before the end of the decade. Solstice™'s high energy density can extend EV range up to 80% while significantly reducing vehicle weight and increasing vehicle efficiency. Its sulfide-based all-solid-state electrolyte system addresses safety concerns associated with more flammable and volatile liquid electrolyte designs, targeting a EUCAR safety rating of 2 and maintaining stability at operating temperatures over 90°C. This also has the potential to reduce the cooling system requirements within the battery pack to lower overall vehicle cost.

"Solstice™ embodies our team's technology leadership and the potential of solid-state batteries to address the most significant hurdles for electric vehicle adoption," said Siyu Huang, CEO and Co-Founder of Factorial. "Solstice™ not only will enhance the range and performance of electric vehicles but also aligns with our vision for a more sustainable future. We're grateful to have Mercedes-Benz's continued support, which underscores our ability to meet the needs of global automakers now and in the future."

Solstice™ is poised to revolutionize battery manufacturing by significantly enhancing sustainability. Through a novel dry coating process, Solstice™ eliminates the need for hazardous solvents and energy-intensive steps commonly used in traditional cathode production. The technology also bypasses the formation process, the most energy-consuming stage of lithium-ion battery manufacturing. By combining these innovations, Solstice™ reduces operating costs, energy consumption, and environmental impact, paving the way for a more sustainable future for battery production.

"The Solstice™ solid-state battery technology represents another landmark milestone in our partnership with Factorial, which is a cornerstone of Mercedes-Benz's strategy and commitment to leading the charge in battery development," said Markus Schäfer, Chief Technology Officer and Member of the Board of Management at Mercedes-Benz Group AG. "Solstice™ offers further improvements in energy density and safety features that will help us develop electric vehicles that set new standards in range, cost, and performance."

This announcement follows [Factorial's delivery of B-samples](#) of its solid-state battery cells utilizing its FEST® platform to Mercedes-Benz, an instrumental step in the development and deployment of Factorial's solid-state batteries utilizing FEST®, paving the way for Solstice™ and the next generation of EVs. Mercedes-Benz entered into a joint development agreement with Factorial in 2021 and led a \$200MM investment round for Factorial in 2022.

About Factorial Inc.

Founded and headquartered in the United States, Factorial is at the cutting edge of solid-state battery technology, developing

solutions that offer longer range per charge, increased safety, and cost competitiveness with conventional lithium-ion batteries. The company's proprietary solid-state platforms FEST® (Factorial Electrolyte System Technology) and Solstice™ utilize electrolyte innovations that enable safe and reliable cell performance with high-capacity cathode and anode materials. Factorial's solid-state batteries are designed to integrate seamlessly with existing manufacturing processes, ensuring scalability and efficiency. The company has established joint development agreements with leading global automakers, including Mercedes-Benz, Stellantis, Hyundai Motor Company, and Kia Corporation. For more information, visit www.factorialenergy.com.

© 2024 Factorial Inc. All rights reserved. Factorial, the Factorial logo, FEST® and Solstice™ are trademarks or registered trademarks in the United States and/or other countries. Other trademarks are the property of their respective owners.

Contacts

Media:

Chelsea Nolan

Antenna for Factorial Energy

factorial@antennagroup.com