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Amprius Announces Breakthrough SiCore™ Cell Chemistry to Boost Battery Performance for Electric Mobility Applications

Designed to Transform the Future of Advanced Air Mobility, Electric Vehicles, and Drones by Offering Unmatched Energy Density at High Discharge Rates

FREMONT, Calif.--(BUSINESS WIRE)-- [Amprius Technologies, Inc.](#) (“Amprius”) (NYSE: **AMPX**), a leader in next-generation lithium-ion batteries with its Silicon Anode Platform, today announced a new SiCore™ cell as part of its expanding [SiCore product platform](#). Designed to revolutionize high-performance electric mobility, the SiCore platform utilizes a proprietary silicon anode material system to deliver the best-known commercially available energy and power performance in one cell.

This press release features multimedia. View the full release here:
<https://www.businesswire.com/news/home/20250114667030/en/>

 Amprius Announces Breakthrough SiCore™ Cell Chemistry to Boost Battery Performance for Electric Mobility Applications (Graphic: Business Wire)

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The new SiCore cell offers unparalleled power-to-energy capabilities for high-demand applications. With an impressive energy density of 370

Wh/kg, the SiCore cell extends runtimes while still delivering exceptional high-power performance exceeding 3000 W/kg. The cell’s advanced design supports high discharge rates of up to 10C without cooling and 15C with active cooling, ensuring quick power delivery without compromising runtime. This cutting-edge solution is expected to set new standards for applications operating in the most demanding conditions. The new SiCore cell is ideal for aviation, including drones, and high-performance electric vehicle applications that require both endurance and rapid energy delivery.

Amprius customers, such as [Teledyne FLIR](#), a leading provider of unmanned solutions to military and public safety customers, are turning to SiCore for the new possibilities it can enable.

“Amprius’ new SiCore cell is positioned to deliver a transformative boost in power and energy for our unmanned aerial systems, extending mission durations while maintaining critical performance under demanding conditions,” said Tung Ng, Vice President, Unmanned Systems North America at Teledyne FLIR. “We are eager to evaluate how this breakthrough technology can meet the rigorous needs of our defense, security, and industrial customers, enabling longer runtimes and increasing operational flexibility.”

“This SiCore cell is a significant technical breakthrough for the industry, achieving a level of power-to-energy ratio that we believe has not been seen at such high-energy density,” said Dr. Ionel Stefan, CTO of Amprius Technologies. “By optimizing the silicon anode composition without compromising the other performance metrics of the cell, we have redefined the trade-off between power and energy. This cell is not just about performance but about creating new power possibilities for high-demand applications.”

“Amprius SiCore Platform has achieved a new performance level. With its unparalleled power-to-energy performance and adaptability across industries such as advanced air mobility, drones, electric vehicles, and light electric vehicles, the new SiCore cell offers our customers more design options and capabilities,” said Dr. Kang Sun, CEO of Amprius Technologies. “It is expected to enable our customers to achieve superior range, speed, and reliability. This advanced power delivery is especially critical for applications like eVTOL aircraft, where high power is essential for takeoff and landing, and high energy ensures extended flight times and longer ranges. Backed by our strong manufacturing partnerships and capabilities, we believe this innovation positions Amprius to meet growing market demand while driving the widespread adoption of silicon anode technology in rapidly expanding industries.”

In the fourth quarter of 2024, pre-production 10Ah samples were delivered to six of Amprius’ customers, enabling real-world testing in challenging environments. This early access ensures the SiCore cell meets industry standards ahead of its planned commercialization in the first quarter of 2025.

For more information, please visit the Amprius investor relations website at ir.amprius.com.

About Amprius Technologies, Inc.

Amprius Technologies, Inc. is a leading manufacturer of high-energy and high-power lithium-ion batteries, producing the industry’s highest-known energy density cells. The company’s commercially available SiMaxx™ batteries deliver up to 450 Wh/kg and 1,150 Wh/L, with third-party validation of 500Wh/kg and 1,300 Wh/L. Amprius expanded its product portfolio to include the SiCore™ platform in 2024, significantly enhancing its ability to serve additional customer applications. The company’s corporate headquarters is in Fremont, California, where it maintains an R&D lab and a MWh scale manufacturing facility for the fabrication of silicon anodes and cells. To serve customer demand, Amprius entered into several agreements to secure over 500MWh of contract manufacturing available today. For additional information, please visit amprius.com. Also, see the company’s [LinkedIn](#) and [Twitter](#) pages.

Forward-Looking Statements

This press release includes “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, each as amended. Forward-looking statements may be identified by the use of words such as “estimate,” “plan,” “project,” “forecast,” “intend,” “expect,” “anticipate,” “believe,” “seek” or other similar expressions that predict or indicate future events or trends or that are not statements of historical matters. These forward-looking statements include, but are not limited to, statements regarding the potential application and addressable market of the new SiCore cell, the performance of the new SiCore cell, the benefits of the new SiCore cell to Amprius’ customers and the industry, and the ability of Amprius to meet market demand and drive the adoption of silicon anode technology. These statements are based on various

assumptions, whether or not identified in this press release, and on the current expectations of Amprius' management and are not predictions of actual performance. Actual results could differ materially from these forward-looking statements as a result of certain risks and uncertainties. These forward-looking statements are subject to a number of risks and uncertainties, including Amprius' liquidity position; risks related to the rollout of Amprius' business and the timing of expected business milestones; Amprius' ability to commercially produce high performing batteries; the effects of competition on Amprius' business; supply shortages in the materials necessary for the production of Amprius' products; and changes in domestic and foreign business, market, financial, political and legal conditions. For more information on these risks and uncertainties that may impact the operations and projections discussed herein can be found in the documents we filed from time to time with the Securities and Exchange Commission (the "SEC"), all of which are available on the SEC's website at www.sec.gov. There may be additional risks that Amprius does not presently know or that Amprius currently believes are immaterial that could also cause actual results to differ from those contained in the forward-looking statements. In addition, forward-looking statements reflect Amprius' expectations, plans or forecasts of future events and views as of the date of this press release. These forward-looking statements should not be relied upon as representing Amprius' assessments as of any date subsequent to the date of this press release. Accordingly, undue reliance should not be placed upon the forward-looking statements. Except as required by law, Amprius specifically disclaims any obligation to update any forward-looking statements.

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Investors

Tom Colton, Greg Bradbury
Gateway Group, Inc.
949-574-3860
IR@amprius.com

Media

Zach Kadletz, Brenlyn Motlagh
Gateway Group, Inc.
949-574-3860
Amprius@Gateway-grp.com

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