



Joint News Release

August 29, 2025

BASF Delivers First Cathode Active Materials for Semi-Solid-State Batteries to WELION New Energy

- **Significant progress through close collaboration in the Solid-State battery sector**
- **New CAM technology enhances energy density and safety**
- **From concept to mass production in just one year**

BASF Battery Materials, through its joint venture BASF Shanshan Battery Materials Co., Ltd. (BSBM), has achieved a major milestone in next-generation battery technology. In collaboration with Beijing WELION New Energy Technology Co., Ltd., BASF has successfully delivered its first batches of mass-produced Cathode Active Materials (CAM) for Semi-Solid-State batteries – marking a significant step towards industrializing Solid-State batteries.

With the rapid development of the new energy industry, the market demands higher energy density and further enhanced safety from batteries. Solid-State batteries, including Semi-Solid-State batteries, are seen as the next generation of battery technology and have garnered widespread attention.

WELION New Energy is recognized as a pioneer with over 40 years of experience in exploring Solid-State battery technologies that are primarily used in electric

vehicles, energy storage, and other applications such as drones and power tools. BSBM brings more than two decades of expertise in cathode active materials development and production, and, with that, the ability to handle critical challenges of Solid-State batteries.

Since the project initiation in August 2024, both parties have moved swiftly from concept to mass production in just one year through seamless teamwork and a shared commitment to technological advancement. The BSBM R&D team developed an ultra-high Nickel NCM (Nickel Cobalt Manganese) cathode active material with a unique composite coating layer to address interface issues between CAM and solid electrolytes. This not only enhances the energy density by higher capacity and lower resistance but also improves the cycling performance and calendar life through suppressing side reactions in interfaces between CAM and electrolyte. Therefore, this successful collaboration represents a true milestone toward the next generation of advanced batteries.

“The commercial implementation of this project is a result of our high technological competency as well as the close interaction between our technical teams,” commented Dr. Xin Xia, CTO of BSBM. “We are proud to jointly contribute to the future of the battery industry,” added Dr. Wenjun Li, Director of WELION New Energy Engineering Institute.

“We are impressed by BASF’s robust technology and fast response. As a leading manufacturer in the Solid-State battery industry, WELION will use BASF’s cathode materials in our new generation of Semi-Solid-State batteries and look forward to more joint projects both at home and globally,” said Dr. Jin Xiang, General Manager of WELION New Energy.

“We sincerely thank WELION New Energy for their trust. This collaboration marks a milestone for our battery materials business and is a significant step forward in the field of Solid-State batteries. We look forward to further deepening our cooperation with WELION New Energy and achieving further breakthroughs in Solid-State battery technology together,” added Desmond Long, Senior Vice President of BASF Battery Materials and CEO of BSBM.

This milestone reflects the shared commitment of WELION New Energy and BASF to accelerate the development, commercialization, and large-scale industrialization of next-generation battery technologies. By combining WELION’s pioneering

expertise in Solid-State Batteries with BASF's advanced materials innovation, both companies are driving meaningful progress toward safer, more energy-dense solutions. The successful delivery of Cathode Active Materials for Semi-Solid-State batteries marks a strategic advancement in their global collaboration and sets the stage for future breakthroughs in the battery industry.

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About BASF Battery Materials

BASF's Battery Materials business is a global leader in advanced cathode active materials (CAM) for lithium-ion batteries. We empower the world's leading cell manufacturers and OEM platforms with high-performance solutions tailored to their needs. Our portfolio includes base metals sourcing and management, as well as various battery recycling solutions. By leveraging our industry-leading R&D platforms and passion for innovation, we develop unique, proprietary solutions that drive customer success and support the transition towards electromobility. Our international production and R&D footprint ensure a reliable supply of high-quality materials and localized support for our customers worldwide. For more information, visit www.battery-materials.basf.com.

BASF Shanshan Battery Materials is a joint venture established in 2021 by BASF and Shanshan, dedicated to proprietary research and development and production of cathode active materials, it has delved into the battery materials industry for more than two decades. We have strong technological innovation capabilities, and the BASF Shanshan Battery Materials Research Institute is a leading international research and innovation center. Our main products are battery cathode materials (such as ternary, lithium cobalt oxide, Solid-State battery materials, lithium manganese oxide, lithium-rich manganese, and sodium batteries) and precursors, which are widely used in the electric vehicle industry, consumer electronics industry, and other fields. For more information, please visit www.bsbm.com.

About WELION New Energy

Beijing WELION New Energy Technology Co., Ltd., founded in 2016 and located in Fangshan District, Beijing, is the Solid-State battery production and incubation center of Institute of Physics, Chinese Academy of Sciences. The company's main business is solid state lithium-ion batteries and covers R&D, production, market, sales, etc. WELION New Energy has over 40 years of solid-state battery industry research experience and holds multiple "first breakthroughs" in the solid state lithium battery industry field. For more information, please visit www.solidstatelion.com.