

Joint News Release

P095/25e
May 13, 2025

BASF and Group14 collaborate on market-ready silicon anode solution that is highly durable at extreme temperatures

Ludwigshafen, Germany, and Woodinville (WA), US – May 13, 2025 – [BASF](#), a global leader in chemical innovation, and [Group14 Technologies](#), the world’s largest manufacturer of advanced silicon battery materials, today announced a market-ready, performance-improving silicon battery solution using commercially available materials: BASF’s Licity® 2698 X F binder, and Group14’s advanced silicon battery material, SCC55®.

BASF and Group14 developed a drop-in-ready solution that greatly enhances the performance of batteries with silicon-dominant anodes, delivering faster charging, higher energy density, with extreme durability – even in the most challenging conditions. Under standard conditions at room temperature, test cells typically exceed 1,000 cycles with 80% of capacity remaining. However, at a temperature of 113°F, (45°C), these cells still achieved over 500 cycles while providing nearly four times the capacity of a traditional graphite anode.

“The future of energy storage powered by silicon batteries is here, and our collaboration with BASF is driving mainstream adoption at unprecedented speed,” said Rick Luebbe, CEO and Co-Founder of Group14 Technologies. “By combining technologies, we are giving battery manufacturers the power to deliver high-performance, scalable silicon batteries faster than ever to help meet today’s soaring energy needs.”

BASF’s Licity 2698 X F binder was developed specifically for silicon-rich anodes and can stabilize the electrode in the most demanding conditions. The collaboration optimizes BASF’s latest binder with the capabilities of SCC55, ensuring robust cycle life and transformational performance.

“Silicon is now an attractive technology without the limitations of the past,” said Dr. Dirk Wulff, Global Technical Battery Binder Manager at BASF. “By combining our expertise, we achieved an anode cell chemistry that not only meets but exceeds industry requirements.”

"Strong and capable lithium batteries are crucial for electric mobility's mass adoption. Our BASF dispersions business provides Licity binders that push this technology further." added Prof. Dr. Thomas Schiele, Vice President in charge of BASF's battery binder business in EMEA.

Media contacts

BASF SE

Ludwigshafen, Germany

Anna Maria Seiß

anna-maria.seiss@basf.com

BASF Corporation

Charlotte, United States

Joy Bryant

joy.bryant@basf.com

Group14 Technologies

Woodinville (WA), United States

Katie Rolnick

KRolnick@group14.technology

About Group14 Technologies

Founded to enable the electrification of everything, Group14 is the world's leading commercial manufacturer of silicon battery technology, ushering in the era of silicon batteries. Group14's flagship material, SCC55[®], currently powers millions of devices worldwide, delivering groundbreaking battery performance while also enabling the next generation of AI-powered technologies and mobility. Operating globally, Group14 delivers to customers representing 95% of worldwide lithium-ion battery production. Group14's investors and customers include Porsche AG, Microsoft Climate Innovation Fund, OMERS, Lightrock Climate Impact Fund, Decarbonization Partners, Amperex Technology Limited (ATL), BASF, Resonac and SK Inc.

Visit us at <https://www.group14.technology>.

About BASF

At BASF, we create chemistry for a sustainable future. Our ambition: We want to be the preferred chemical company to enable our customers' green transformation. We combine economic success with environmental protection and social responsibility. Around 112,000 employees in the BASF Group contribute to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio comprises, as core businesses, the segments Chemicals, Materials, Industrial Solutions, and Nutrition & Care; our standalone businesses are bundled in the segments Surface Technologies and Agricultural Solutions. BASF generated sales of €65.3 billion in 2024. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the United States. Further information at www.basf.com.

More information about BASF's Licity binders: www.basf.com/licity