Albemarle Establishes Battery Materials Innovation Center in North Carolina

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State-of-the-art battery technology lab joins lithium R&D center at Kings Mountain site

CHARLOTTE, N.C., June 30, 2021 /PRNewswire/ -- Albemarle Corporation (NYSE: ALB), a leader in the global specialty chemicals industry, announced today the opening of the company's Battery Materials Innovation Center (BMIC) located at its Kings Mountain, North Carolina, site.

The BMIC is expected to be fully operational in July 2021 and will support Albemarle's lithium hydroxide, lithium carbonate and advanced energy storage materials growth platforms. It has been equipped to enable synthesis of new materials, material properties characterization and analysis, material scale-up capabilities, and material integration into battery cells for performance testing.

The facility includes a dry room with a multi-layer pouch cell line that can create cell-phone sized batteries to demonstrate critical aspects of battery performance and accelerate transition of new products to customers. The lab will also develop lithium metal anode technologies that will increase battery energy density by utilizing advanced lithium metal rolling to achieve lithium foils 20 microns thin – about one-fifth the average thickness of a human hair – or thinner. The team plans to demonstrate lithium foils as thin as 3 to 5 microns using new technologies currently being developed.

"The completion of the Battery Materials Innovation Center provides us with realistic and relevant cell building capabilities to generate meaningful data for next-gen battery material design," said Dr. Glen Merfeld, Albemarle Lithium Chief Technology Officer. "With this new resource, we will be equipped to optimize our lithium materials for a drop-in solution for customers that help them deliver high-performing cost-effective batteries for the rapidly growing electric vehicle market."

Currently, Albemarle is the only U.S.-based producer of lithium metal anodes; these and other novel materials developed in the company's labs will enable the next frontier of lithium-ion battery performance. In a June 14 roundtable discussion hosted by the U.S. Department of Energy, Dr. Merfeld stressed that advancements in lithium recovery and battery performance are critical to maximizing the energy yield of every gram of active lithium material. Moving from conventional graphite battery anodes to lithium metal offers the potential to double energy density and reduce cost by as much as 50%. Innovations that leapfrog current technologies and encourage step changes in disruptive cathode and next-generation anode manufacturing will make the future of high-capacity lithium-ion batteries possible.

About Albemarle
Albemarle Corporation (NYSE: ALB), headquartered in Charlotte, N.C., is a global specialty chemicals company with leading positions in lithium, bromine, and refining catalysts. We think beyond business-as-usual to power the potential of companies in many of the world's largest and most critical industries, such as energy, electronics, and transportation. We actively pursue a sustainable approach to managing our diverse global footprint of world-class resources. In conjunction with our highly experienced and talented global teams, our deep-seated values, and our collaborative customer relationships, we create value-added and performance-based solutions that enable a safer and more sustainable future.

We regularly post information to www.albemarle.com, including notification of events, news, financial performance, investor presentations and webcasts, non-GAAP reconciliations, SEC filings and other information regarding our company, its businesses and the markets it serves.

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