

NEWS RELEASE

Ascend Elements and Koura Unveil Innovative Technology Yielding 99.9% Pure Graphite from Used Lithium-ion Batteries

Westborough, Mass. (Feb. 15, 2022) – [Ascend Elements](#), a vertically integrated lithium-ion battery recycling and engineered materials company and [Koura](#), an Orbia business and one of the world’s largest producers of fluoroproducts and technologies, today announced the launch of a proprietary process technology yielding battery-grade graphite material from spent lithium-ion batteries. Orbia is serving as a development partner to Ascend Elements to scale the company’s technology for commercial production. Orbia has also backed the company through several investment rounds.

With sales of plug-in electric vehicles expected to grow at a 30% compound annual rate through 2030, Ascend Elements’ technology is a game-changer in the battery recycling and sustainable materials spaces. With consistent yields of over 99.9% pure graphite and energy capacity and cycle life on par with virgin battery-grade graphite anode material, Ascend Elements’ **Hydro-to-Anode™** process technology has the additional benefit of extending recycling and manufacturing throughput beyond cathode active materials to anode materials as well. This innovation dramatically increases the value of every lithium-ion battery recycled using the Ascend Elements process.

“With this advancement, we just made the case for battery recycling a lot more compelling. Increasing the value of the extracted materials improves the economics of recycling, which creates an incentive for even more recycling,” says Michael O’Kronley, Chief Executive Officer of Ascend Elements. “The ability to recover graphite for use in batteries helps solve another critical material challenge in the battery supply chain and minimizes the need for mining new materials.”

“Orbia is committed to developing and deploying sustainable solutions across all our business in pursuit of our purpose of advancing life around the world,” says Sameer Bharadwaj, CEO of Orbia. Bharadwaj continued, “Ascend Elements is a perfect development

partner for our Koura business given our focus on renewable technologies and the incredible material opportunities in the lithium-ion battery space.”

High-purity graphite is a mineral included on the United States critical minerals list, according to U.S. Executive Order 13953. To lessen reliance on foreign entities, U.S. material manufacturing and recycling companies are charged with making this mineral more available within the North American supply chain. Other minerals on the list include lithium and cobalt; both of which are reclaimed in the Ascend Elements recycling and manufacturing processes. Ascend Elements is currently producing battery-grade graphite in its facility located in Westborough, Massachusetts.

ABOUT ASCEND ELEMENTS

Based in Westborough, Mass., [Ascend Elements](http://ascendelements.com/) is revolutionizing the production of lithium-ion battery materials by establishing a clean and sustainable supply chain using recycled feedstock. Its patented Hydro-to-Cathode™ technology directly synthesizes new cathode materials from spent lithium-ion cells more efficiently than traditional methods, resulting in reduced cost, improved performance, and lowered GHG emissions. The results are lower cost, better performance batteries with fewer discarded in landfills, a cleaner manufacturing process, and a truly sustainable closed-loop circular battery economy. Ascend Elements is taking the lithium-ion battery industry to a higher level. To learn more, visit <http://ascendelements.com/>.

ABOUT KOURA

Koura is a global leader in the development, manufacture and supply of fluoroproducts that play a fundamental role in enhancing everyday lives. Koura is an Orbia business, working to tackle some of the world’s most complex challenges. Koura’s products are used in a vast range of applications including the construction of towns and cities, keeping homes cool, food fresh and even in the treatment of respiratory conditions. Headquartered in Boston, Koura has commercial activities across the world, with operations in the United Kingdom, Mexico, United States, India and Japan. To learn more, visit <http://kouraglobal.com/>.

ABOUT ORBIA

Orbia is a community of businesses bound by a shared purpose: to advance life around the world. The Orbia businesses have a collective focus on ensuring food and water security, reinventing the future of cities and homes, connecting communities to data infrastructure and expanding access to health and wellness with basic and advanced materials and solutions. Orbia operates in the Precision Agriculture, Building and Infrastructure, Data Communications, Fluorinated Solutions and Polymer Solutions sectors. The company has commercial activities in more than 110 countries and operations in over 50, with global headquarters in Mexico City, Boston, Amsterdam and Tel Aviv. To learn more, visit <http://orbia.com>.

MEDIA CONTACTS:

Thomas Frey, APR

Ascend Elements | media@ascendelements.com | +1.734.658.0143

Becca Wirta

Publitek | ascendelements@publitek.com | +1.206.390.9021

Kacy Karlen

Orbia | kacy.karlen@orbia.com | +1-865.410.3001