

News Release

Hyundai CRADLE Partners with Ionic Materials to Advance Battery Technology Development

- Strategic investment supports Hyundai roadmap to EV innovation
- Ionic Materials uses innovative solid polymer electrolyte technology to improve battery safety and performance

MENLO PARK, Calif., July 10, 2018 – <u>Hyundai CRADLE</u>, Hyundai Motor Company's corporate venturing and open innovation business, is investing in <u>lonic Materials</u>, a privately held battery developer based in Massachusetts, to advance the development of battery technology and improve EV performance with solid-state battery innovation.



lonic Materials is a materials technology company developing advanced materials for high-energy-density batteries that are safer and less expensive than current ones. Using a patented solid polymer material, lonic Materials enables solid-state batteries that are inherently safe, affordable, high in energy density and operational at room temperature. The special properties of lonic Materials' polymer electrolyte also support lithium-ion cells with little to no cobalt in their cathodes.

Expected Benefits of Solid-State Batteries:

- Inherent Safety: Eliminates safety issues with liquid electrolytes
- Higher Performance: Enables higher energy anodes and cathodes
- Lower Cost: Reduces battery cost through less expensive chemistries and manufacturing

"lonic Materials' breakthrough technology could significantly improve battery technology today," said John Suh, vice president of Hyundai CRADLE. "We are always looking for ways to ensure our cars provide the highest level of clean and efficient solutions. Our investment in lonic Materials will



keep us at the forefront of battery development, allowing us to build better eco-friendly vehicles."

"The investment by Hyundai represents another key company milestone and demonstrates our rapid momentum as we develop polymer-based materials for solid-state batteries," said Mike Zimmerman, founder and CEO of Ionic Materials. "With the ongoing help of our investment partners, we have expanded our facilities and are adding to our team to meet the ever-growing demand for this technology."

Further advancements made possible by Ionic Materials' polymer will support additional highenergy and eco-friendly battery chemistries, including lithium metal, lithium sulfur and inexpensive and low-cost rechargeable alkaline batteries.

About Ionic Materials

Ionic Materials is a materials technology company that enables next-generation solid-state batteries. Its breakthrough polymer is the first solid electrolyte to fully function at room temperature and be compatible with lithium and alkaline-based batteries, and enable new and advanced electrode chemistries to significantly improve battery safety, performance and cost. Developed by a world-class team of polymer scientists, Ionic Materials is headquartered in Woburn, MA. For more information, please visit www.ionicmaterials.com.

About Hyundai CRADLE

Hyundai CRADLE is the Center for Robotic-augmented Design in Living Experiences. CRADLE strengthens Hyundai Motor Group's core automotive business and expands it into new and adjacent markets with the goal of enhancing transportation on and off the road. The company also plans to expand the Hyundai CRADLE innovation concept globally.

About Hyundai Motor

Established in 1967, Hyundai Motor Company is committed to becoming a lifetime partner in automobiles and beyond. The company leads the Hyundai Motor Group, an innovative business structure capable of circulating resources from molten iron to finished cars. Hyundai Motor has eight manufacturing bases and seven design and technical centers worldwide and in 2017 sold about 4.5 million vehicles globally. With more than 110,000 employees worldwide, Hyundai Motor continues to enhance its product line-up with localized models and strives to strengthen its leadership in clean technology, starting with the world's first mass-produced fuel cell electric vehicle and IONIQ, the world's first model with three electrified powertrains in a single body type.

More information about Hyundai Motor and its products can be found at: http://globalpr.hyundai.com or http://globalpr.hyundai.com

Contact

Hyundai Motor Company Jin Cha Global PR Team / Hyundai Motor sjcar@hyundai.com +82 2 3464 2128

Hyundai Motor America Miles Johnson (714) 366-1048 milesjohnson@hmausa.com