

#### For Immediate Release

# Orbia Fluorinated Solutions' Advanced Electrolyte Materials Boosting Performance of Amprius Technologies' industry-leading Li-ion Batteries

BOSTON, March 28, 2022 – Orbia's Fluorinated Solutions brand Koura, a global solutions leader in the fluorine and advanced materials space, is pleased to announce that its Silatronix OS3<sup>®</sup> electrolyte material is now being used in commercial lithium-ion batteries manufactured by Amprius Technologies, the performance leader in Silicon Anode Li-Ion battery cells with its Si-Nanowire<sup>™</sup> platform.

The introduction of Silatronix OS3 has seen the battery cells achieve an industry leading energy density of 450-Wh/Kg and 1150-Wh/L, which is among the highest of any commercial lithium-ion cell in the world. Amprius battery cells achieves this level of energy density by applying their proprietary Si-Nanowire platform, which utilizes 100% silicon in the anode.

"The collaboration between Amprius and Koura on this project has been a partnership which has resulted in outstanding performance of our battery cells, even in challenging environments," said Ronnie Tao, Vice President of Business Development for Amprius. "Using Silatronix OS3 has helped Amprius achieve the highest energy density of any commercial lithium-ion battery cell in the world."

Additionally, engineers at Amprius collaborated with Orbia Fluorinated Solutions to optimize high-performance electrolyte containing OS3, enabling the cells to operate with long cycle life in challenging environmental conditions.

Advanced electrolyte materials such as OS3 are a critical component of increasing energy density in lithium-ion batteries, working together with advanced electrode technologies such as Amprius Si-Nanowire.

Dr Miki Oljaca, Head of Growth and Technology at Koura, commented: "This application of OS3 represents a significant advancement in lithium-ion electrolyte performance and capability and serves as market validation for the benefit OS3 provides in high-performance lithium-ion cells. The energy density that Amprius achieves in these cells is far beyond anything else commercially available," added Dr Oljaca. "OS3 delivers stability in the most challenging electrolyte applications, and we are excited to see Amprius apply it in their commercial cells to achieve such high performance."

Orbia's Fluorinated Solutions brand Koura is a fully integrated fluorine technology company currently executing on a strategy to accelerate technology development in the rapidly expanding lithium-ion battery industry. Having recently announced the launch of Koflyte® electrolyte additives and cosolvents products developed to improve performance and safety of the next generation of Li-ion batteries in the support of a renewable future.



# **About Orbia**

Orbia is a company driven by a shared purpose: to advance life around the world. Orbia operates in the Polymer Solutions (Vestolit and Alphagary), Building and Infrastructure (Wavin), Precision Agriculture (Netafim), Data Communications (Dura-Line) and Fluorinated Solutions (Koura) sectors. The five Orbia businesses and their commercial brands have a collective focus on expanding access to health and wellness, reinventing the future of cities and homes, ensuring food and water security, connecting communities to data infrastructure and accelerating a sustainable, circular economy with basic and advanced materials and solutions. Orbia has commercial activities in more than 110 countries and operations in over 50, with global headquarters in Boston, Mexico City, Amsterdam and Tel Aviv. To learn more, please visit <a href="https://www.orbia.com">www.orbia.com</a>.

#### **About Koura**

Orbia's Fluorinated Solutions brand Koura is a global leader in the development, manufacture and supply of fluoroproducts that play a fundamental role in enhancing everyday lives and shortening the path to a sustainable, circular economy. Koura's products are used in a vast range of applications including energy storage, urban and rural infrastructure, indoor climate management, food and medicine refrigeration and even in treating respiratory conditions. Headquartered in Boston, Koura has commercial activities across the world, with operations in the United Kingdom, Mexico, United States, India and Japan.

### **About Amprius Technologies**

Amprius Technologies is a leading manufacturer of high-energy and high-capacity lithium-ion batteries producing the industry's highest energy density cells. The company's corporate headquarters is in Fremont, California where it maintains an R&D lab and a pilot manufacturing facility for the fabrication of silicon nanowire anodes and cells. Please go to <a href="https://www.amprius.com">www.amprius.com</a> for more information.

#### **About Silatronix**

Acquired by Orbia in November 2021, Silatronix is a Madison, Wisconsin based high-tech incubator for battery technology that was established in 2007 by Dr. Robert West and Dr. Robert Hamers of the University of Wisconsin. With support from the Department of Energy and the Office of Naval Research, Silatronix has built an industry-wide reputation for developing breakthrough solutions and electrolyte technologies for lithium-ion batteries. These technologies, including Silatronix's unique fluorosilane additive OS3®, deliver improved battery safety and enhanced performance in a range of applications.

# **About OS3**

OS3 is the latest generation in performance enhancing organosilicon electrolyte materials available from Silatronix. OS3 enables extreme performance of Li-ion batteries when added to LiPF6 based battery cells in concentrations of just 1-3%. OS3 provides dramatic performance enhancements while also delivering substantial safety and stability improvements. Silatronix is currently delivering production volumes of OS3.



# **About Koflyte**

Koflyte products are currently in development and will be ready for commercialization soon. These include polyfunctional ether compounds for high energy Li-ion batteries and cyclic polyether compounds that when used as a co-solvent may facilitate safe, stable, energy efficient cycling of Limetal anodes with various cathode chemistries.

## **Media Contacts**

North America

Kacy Karlen Global Head of Communications, Orbia 1 (865) 410-3001 kacy.karlen@orbia.com

For Amprius Technologies

Renee Maler renee@philosophypr.com (510) 499-9746

**EMEAI** 

Chris Porter
External Communications Lead, Orbia
+44 (0) 7887 692 925
<a href="mailto:chris.porter@orbia.com">chris.porter@orbia.com</a>

