NewsRelease



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Nippon Shokubai and Arkema: a strategic partnership to mass-produce LiFSI electrolyte salt for a European battery supply chain

Nippon Shokubai and Arkema are joining forces to launch feasibility studies and establish a joint venture for the construction of an industrial plant for the production of LiFSI (Lithium bis(fluorosulfonyl)imide) ultrapure electrolyte salt, a key component of battery cells for electric mobility.

Ultrapure and high performance LiFSI electrolyte salts, a key component of car battery cells, will speed up the development of new electrolyte formulations for the next generations of batteries, including semi-solid and solid state batteries, by significantly increasing their power, stability, cycle life, and recyclability, while reducing charging time in high or low temperature conditions.

This industrial project will support the development of the European battery value chain and participate in the global need for carbon-neutral mobility.

Combining Arkema's fluorochemicals expertise and Nippon Shokubai's unique know-how in the industrial-scale production of high-purity LiFSI, both partners have joined forces in a strategic partnership that has led to the development of an innovative and integrated process. Based on this cutting-edge patented technology, a LiFSI pilot production line has been installed on the Pierre-Bénite site and successfully came on stream in 2021.

To support the exponential growth in demand for battery cell materials, Arkema and Nippon Shokubai are taking a step forward by launching feasibility studies and establishing a joint venture to enable the mass-production of LiFSI electrolyte salt at Arkema's Pierre-Bénite site in France by end 2025.

About Nippon Shokubai:

Since 1941, Nippon Shokubai has grown up its business with unique catalyst technology. Nippon Shokubai has supplied, for example, ethylene oxide, acrylic acid, automobile catalysts, process catalysts and so on. Among all, our global market share of superabsorbent polymers is the largest in the world now (according to Nippon Shokubai research). Nippon Shokubai is a global chemical company operating under its corporate mission "TechnoAmenity – Providing prosperity and comfort to people and society, with our unique technology."

About Arkema:

Building on its unique set of expertise in materials science, Arkema offers a portfolio of first-class technologies to address ever-growing demand for new and sustainable materials. With the ambition to become in 2024 a pure player in Specialty Materials, the Group is structured into 3 complementary, resilient and highly innovative segments dedicated to Specialty Materials - Adhesive Solutions, Advanced Materials, and Coating Solutions- accounting for some 85.5% of Group sales in 2021, and a well-positioned and competitive Intermediates segment. Arkema offers cutting-edge technological solutions to meet the challenges of, among other things, new energies, access to water, recycling, urbanization and mobility, and fosters a permanent dialogue with all its stakeholders. The Group reported sales of around €9.5 billion in 2021, and operates in some 55 countries with 20,200 employees worldwide.

[Contacts]

Corporate Communications Dept.,

NIPPON SHOKUBAI CO., LTD.

TEL: +81-3-3506-7605 E-mail: shokubai@n.shokubai.co.jp