

### **Research cooperation: LANXESS and IBU-tec to develop iron oxides for LFP battery material**

- **Collaboration aims to improve performance of LFP cathode material**
- **Reduced carbon footprint of batteries through use of local raw materials**
- **Focus on European value chain for LFP batteries**

**Cologne/Weimar, January 23, 2024** - Specialty chemicals company LANXESS and battery materials manufacturer IBU-tec advanced materials have entered into a research cooperation in the battery sector. The goal of the two German companies is to develop innovative iron oxides for the production of cathode material for LFP batteries and thus increase the performance of this battery type. The companies aim to optimize the electrochemical properties of LFP batteries, such as energy density, charging speed and number of charging cycles.

More and more car manufacturers are increasingly relying on LFP (lithium/iron/phosphate) batteries for their e-vehicles - especially for volume models. Compared to NMC (nickel/manganese/cobalt oxide) and NCA (nickel/cobalt/aluminum oxide) cell chemistry systems, LFP technology offers cost advantages of up to 50 percent and promises safer use, as the system makes the batteries virtually impossible to ignite.

#### **Strengthening European value chains**

The demand for LFP in Europe is expected to grow by 20 percent per year until 2030. So far, however, this demand has been met almost exclusively by non-European suppliers. With their development, both companies aim to contribute to the establishment of an independent, robust value chain in the European LFP battery market, while at the same time reducing the carbon footprint of batteries.

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IBU-tec, based in Weimar, Germany, is currently the only European manufacturer of LFP cathode material. LANXESS operates the world's largest plant for the key raw material iron oxide in Krefeld-Uerdingen. The company has almost 100 years of experience in developing this material and can supply iron oxide particles for LFP batteries in the required size, purity, morphology and quantities.

Michael Ertl, Head of the Inorganic Pigments business unit at LANXESS, said: "As IBU-tec is currently the only European manufacturer of LFP cathode materials, the company is the ideal partner for us to develop the new material, which is a key component for batteries in e-cars and stationary energy storage systems. This is an important contribution to sustainability and the development of a European value chain in the field of battery materials."

Jörg Leinenbach, CEO of IBU-tec, said: "With LANXESS, we are gaining one of the largest, globally positioned chemical companies as a strong partner in the battery sector. With the joint product development we will combine our expertise and together we will drive the development of the European LFP battery market and establish an independent value chain. We see this cooperation as an important step towards opening up the market. IBU-tec will inform about further material developments in the battery sector with new application possibilities in January."

### **LANXESS: Wide range of solutions for electromobility**

In addition to key ingredients for LFP precursors, LANXESS offers many other solutions for electromobility and the battery industry, including raw materials for electrolytes, battery coolants, flame retardants for plastic components in electric vehicles and charging infrastructure, and orange dyes for coloring high-voltage components.

### **About IBU-tec**

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The IBU-tec Group develops and produces innovative materials of the highest quality for industry. It combines unique, partly patented thermal process technology with the process and material know-how of around 250 highly qualified employees. The company's own products include LFP battery material, which is an important component of batteries for electromobility and stationary energy storage, as well as solutions for air purification, resource conservation and the reduction of plastic packaging. IBU-tec is thus well positioned for the long term in global megatrends - especially climate and environmental protection - and has an international customer base ranging from innovative SME's to global corporations.

LANXESS is a leading specialty chemicals company with sales of EUR 8.1 billion in 2022. The company currently has about 13,000 employees in 32 countries. The core business of LANXESS is the development, manufacturing and marketing of chemical intermediates, additives and consumer protection products. LANXESS is listed in the leading sustainability index Dow Jones Sustainability Index (DJSI World and Europe).

### Forward-Looking Statements

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All LANXESS news releases and their accompanying photos can be found at <http://press.lanxess.com>. Recent photos of the Board of Management and other LANXESS image material are available at <http://photos.lanxess.com>.

You can find further information concerning LANXESS chemistry at <https://lanxess.com/en/Media/Stories>.

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## News Release

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