

2026-08-10, Joint press release, Smoltek Nanotech Holding AB (publ) and Heraeus Precious Metals

This press release is an English version of the previously published Swedish version, which has interpretive precedence.

Smoltek Hydrogen and Heraeus Precious Metals Advance Next-Generation Ultra-Low Iridium Electrolysis Technology

Smoltek Nanotech Holding AB (publ) (“Smoltek” or “the Company”) announces that its subsidiary Smoltek Hydrogen and Heraeus Precious Metals advance their strategic collaboration to develop next-generation, ultra-low iridium Porous Transport Electrodes (PTEs) for Proton Exchange Membrane (PEM) water electrolysis. As a major milestone in this partnership, the companies will initiate a rigorous 3,000-hour long-term durability test this autumn.

The testing campaign will specifically evaluate the long-term operational stability of Smoltek’s proprietary nanostructured iridium catalyst layer, marking a critical step toward the commercialization and large-scale industrialization of cost-effective green hydrogen production.

The collaboration leverages Smoltek’s innovative nanotechnology alongside Heraeus Precious Metals’ world-class expertise in precious metal electrocatalysts and material analysis.

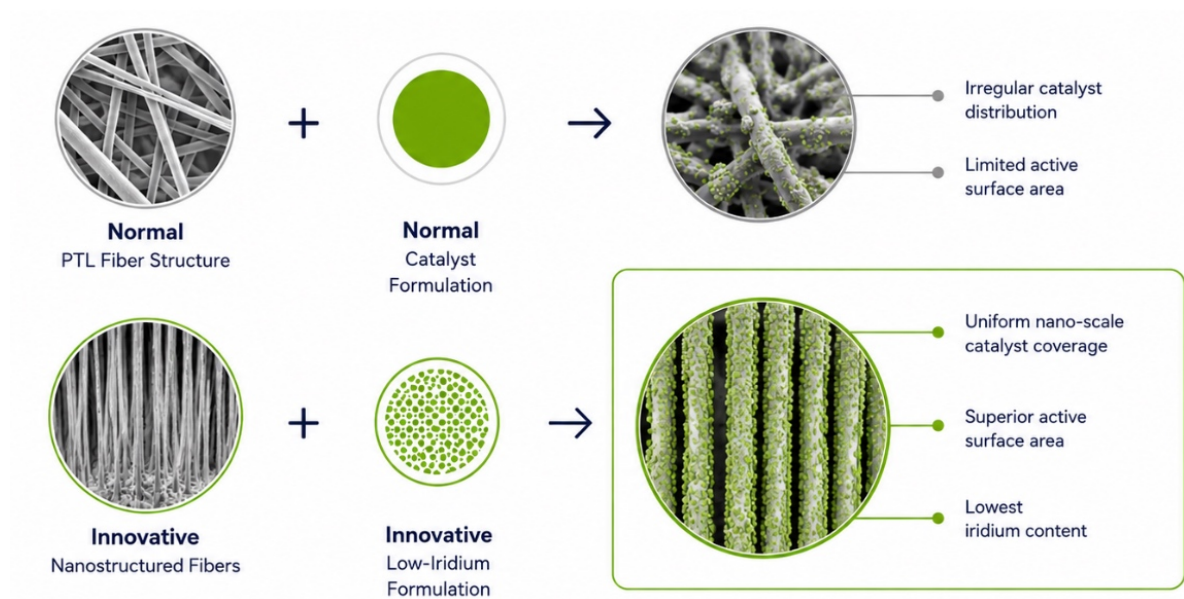
“Our nanostructured layer offers a unique capability to maximize charge and mass transport properties within a thickness of just a few microns. By optimizing this specific catalyst architecture, we can simultaneously maintain high electrolyzer efficiency while successfully reducing the amount of iridium needed to below 0.1 mg/cm² loading,” says Fabian Wenger, Head of R&D at Smoltek Hydrogen.

Testing and validation are central to transitioning this breakthrough from the laboratory to industrial application. Heraeus Precious Metals will lead the upcoming testing phase, bringing extensive resources to evaluate the catalyst’s performance under realistic operational conditions.

“We are looking forward to commencing this extensive testing campaign and to provide the critical material analysis required to validate this technology. With our capabilities we will continue to support all steps towards an industrialization of these highly promising ultra-low iridium PTEs with our comprehensive analytical and testing capabilities” says Christian Gebauer, Head of Innovation at the Hydrogen Systems Division of Heraeus Precious Metals.

This joint effort directly addresses one of the primary bottlenecks in scaling PEM electrolysis: the high cost of iridium. By drastically reducing the required loading without sacrificing durability, Smoltek

Hydrogen and Heraeus Precious Metals are paving the way for the sustainable expansion of the global green hydrogen infrastructure.



The combination of Smoltek's proprietary nanotechnology and Heraeus Precious Metals low-loading iridium catalysts lead to significant lower iridium consumption at high catalytic activity and conductivity. (AI generated illustration.)

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About Smoltek

Smoltek Nanotech Holding is a public technology company that provides a technology that enables the production of conductive nanostructures on various materials. The company's technology multiplies the actual surface area for electrical and chemical processes and can be used in several industrial sectors. Customers are found in semiconductors and the global process industry. The products that the company develops are used as infrastructure components for stable power supply to microchips as well as electrodes and coating of surface structures in applications for the production and use of fossil-free hydrogen. The company protects its carbon nanotechnology through an extensive patent portfolio. Smoltek's share is listed on the Spotlight Stock Market under the ticker

symbol SMOL. Smoltek is a development company and forward-looking statements regarding time to market, production volume and price levels should be interpreted as forecasts and not commitments.

About Smoltek Hydrogen

Smoltek Hydrogen specializes in the development of nanostructure-supported electrocatalysts, utilizing proprietary carbon nanofiber technology to create highly efficient, low-loading catalyst layers for the hydrogen economy.

About Heraeus Precious Metals

Heraeus Precious Metals is one of the world's leading players in the precious metals industry. As part of the Heraeus Group, the company covers the value chain from trading to precious metals products to refining and recycling. It has extensive expertise in all platinum group metals as well as gold and silver. With about 2,500 employees at 11 sites worldwide, Heraeus Precious Metals offers a broad portfolio of products that are essential for many industries such as the automotive, chemicals, semiconductor, aerospace, pharmaceutical and hydrogen industry.

About Heraeus

Heraeus is a globally active, family-owned technology group based in Hanau, Germany. The company develops and manufactures high-quality materials and solutions across its business areas Precious Metals, Healthcare, Semiconductor & Electronics, and Industrials. The group is among the leading providers of precious metals, quartz glass solutions for the semiconductor and telecommunications industries, and sensor systems for industrial applications. In addition, the company improves the quality of life of millions of people through materials and technologies for medical applications. In fiscal year 2025, the company generated revenues of €43.2 billion (€2.8 billion excluding precious metals) and employed around 15,100 people in 40 countries. It is therefore among the top 10 family-owned companies in Germany. Innovation is a key driver of Heraeus's success. In 2025, 5.5% of revenues (based on revenues excluding precious metals) were invested into research and development. The company's roots date back to 1660. Since then, Heraeus has combined its extensive materials expertise with a clear focus on innovation – and stands for technological strength, sustainable growth and responsible business practices.

MATERIALS. INNOVATIONS. FOR GENERATIONS