

## Micromeritics and Fraunhofer ICT announce advanced electrochemistry collaboration

Micromeritics and Fraunhofer ICT announce a technical collaboration to accelerate the development of novel materials critical for Cleantech applications.

NORCROSS, GA, UNITED STATES, February 24, 2025 /EINPresswire.com/ -- Micromeritics Instrument
Corporation, a Malvern Panalytical company, and Fraunhofer Institute for Chemical Technology ICT are pleased to announce a technical collaboration aimed at fostering the education and training of future scientists and engineers. This partnership is set to accelerate the development of novel materials critical for Cleantech applications, including thermochemical heat storage systems, electrolysis, fuel cells, and batteries.

As part of this collaboration, the Micromeritics <u>3Flex high-performance</u> <u>adsorption analyzer</u> will be installed in the Advanced Electrochemistry Lab in Pfinztal, near Karlsruhe. This state-of-the-art research instrument can perform physisorption, chemisorption, dynamic chemisorption, and pulse



Micromeritics 3Flex at Fraunhofer ICT



Micromeritics

chemisorption, delivering crucial data for catalysts and particulate material development across the Cleantech value chain.

Micromeritics is committed to educating scientists and engineers in Germany and worldwide by

providing training programs that will equip them with the expertise to effectively use our advanced characterization instruments. Our goal is to empower researchers to explore new methods and applications, ultimately driving innovation and progress in Cleantech industries.



Julia Melke, Ph.D., Fraunhofer ICT's Group Leader for Electrolysis and Electrosynthesis, said: "Sorption studies are essential for the development of electrocatalysts as they require a deep

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The 3Flex enables us to investigate sorbents for thermochemical heat storage systems with high accuracy - a starting point for the development of new sorption-based thermochemical heat storage systems"

Christian Teicht, Ph.D. Fraunhofer ICT

understanding of the interaction between structure, electrochemical activity and stability."

Christian Teicht, Ph.D., Fraunhofer ICT´s Scientist for Sorption technologies, added: "The new instrument will enable us to investigate sorbents for thermochemical heat storage systems with high accuracy. These measurements will be a starting point for the development of new sorption-based thermochemical heat storage systems. Personally, I will also use this instrument to continue my work on the modified potential theory of adsorption, which I started as one of the topics of my PhD thesis."

Jeff Hrivnak, Ph.D., Director of Market Development at

Malvern Panalytical, said: "The Fraunhofer ICT Advanced Electrochemistry Lab is pioneering the development of advanced materials for electrolysis, fuel cells, and batteries, driving exciting innovations. We are delighted to enhance their innovative efforts with our advanced high-performance systems and look forward to a partnership that educates future scientists and engineers in the field of electrochemistry."

## About Fraunhofer ICT

The Fraunhofer Institute for Chemical Technology ICT is a globally recognized research institution based in Pfinztal, Germany, renowned for advancing innovation in chemical and process engineering. Collaborating closely with industry partners, Fraunhofer ICT drives technological advancements and solutions in materials science, chemical engineering, and industrial processes. With a focus on applied research and development, the institute translates scientific discoveries into practical applications, addressing complex challenges in manufacturing, energy, and sustainability.

About Micromeritics Instrument Corporation Micromeritics Instrument Corporation, a Malvern Panalytical company, is the world's leading manufacturer of high-performance systems to measure density, surface area and porosity, powder rheology and catalyst activity. The company is headquartered in Norcross, Georgia, USA with manufacturing sites in the U.S. and Europe, and direct sales operations throughout North America, Europe, and Asia.

About Malvern Panalytical
Malvern Panalytical is a global leader in the
analytics of material and life sciences. We
unleash the power of small things to make big
things happen for our customers. Our vision is
to make the world cleaner, healthier, and more
productive. We partner with our customers to
make their solutions possible through the
power of precision measurements, our

Micromeritics 3Flex high performance gas adsorption system

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collaborate with our customers and with each other to discover new possibilities and achieve breakthroughs. Our culture is a healthy, high-performance culture shaped by our values: Own it, Aim High and Be True. We're committed to Net Zero in our own operations by 2030 and in our total value chain by 2040. With over 2300 employees across the globe, we are part of Spectris plc, the world-leading precision measurement group.

Malvern Panalytical. We're big on small™

expertise, trusted data, and insights. Our

people are partners in discovery. We

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