Micromeritics accelerates catalyst development with a full suite of catalyst characterization instruments

Experience leads researchers at the Universidad Loyola Andalucia to invest in Micromeritics gas adsorption and catalyst screening systems

Micromeritics

NORCROSS, GEORGIA, UNITED STATES, March 16, 2020 /EINPresswire.com/ -- Micromeritics Instrument Corp., a global leader in material characterization technologies, has extended its suite of complementary instruments for heterogeneous catalyst testing so customers can now readily select multiple systems that work efficiently together to accelerate catalyst development. The Micromeritics ASAP 2020 Plus, a research grade gas adsorption system, and the Micromeritics Microactivity Effi, a fully automated laboratory catalyst screening unit, are a popular and powerful combination. The ASAP 2020 Plus is used to quantify core characteristics of the active catalyst and support while the Effi enables efficient catalyst evaluation under process relevant conditions. Dr Manuel Antonio Díaz Pérez, from the Universidad Loyola Andalucia (Seville, Spain) is one of the most recent customers to invest in this dual instrument solution for efficient catalyst research.

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>
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"When it came to setting-up our new laboratory I had no hesitation in going straight to Micromeritics to duplicate a test set-up that had proven valuable to me in previous work," said Dr Díaz Pérez. "The Effi is very effective and highly reliable. The hardware is robust, the software intuitive and it is extremely easy to change out parts, should you need to. My experience of the ASAP 2020 Plus is primarily for physisorption, to study surface area and porosity which are performance-defining characteristics for any heterogeneous catalyst. Going forward I hope to invest in additional systems from Micromeritics to further enhance our research capabilities. The range of tools they offer generate a wealth of relevant and useful data to accelerate catalyst development."

Dr Díaz Pérez is establishing a new laboratory within the engineering department of the University of Loyola to develop new materials that address specific environmental concerns. Research themes include catalysts for the conversion of biofuels to bulk chemical building blocks and adsorbents for carbon dioxide. The ASAP 2020 Plus is specified for physisorption but also available in a chemisorption version. It will allow Pérez' team to measure the surface area of catalysts and quantify porosity via metrics such as total pore volume and pore size distribution. These parameters define how easily reactants and products can move to and from an active catalyst site, helping researchers to optimize the reaction environment at a molecular level. The Effi laboratory catalyst screening unit will be used to study catalyst activity, selectivity, yield and deactivation under representative conditions. It enables the generation of kinetic data and the assessment of strategies for catalyst regeneration, where appropriate.

"High quality, reliable analytical equipment is a worthwhile investment," said Dr Díaz Pérez "that has a big impact on the day-to-day running and productivity of the lab. Micromeritics' systems are great to use, and the company offers swift and efficient help with specific analyses and applications. I'm sure the new instruments we've purchased will make an important contribution to our ongoing research."

Micromeritics Microactivity Effi laboratory catalyst screening unit

Micromeritics ASAP 2020 Plus research grade gas adsorption system

About Micromeritics Instrument

Micromeritics Instrument Corporation is a global provider of solutions for material characterization with best-in-class instrumentation and application expertise in five core areas: density; surface area and porosity; particle size and shape; powder characterization; and catalyst characterization and process development.
The company is headquartered in Norcross, Georgia, USA and has more than 400 employees worldwide. With a fully integrated operation that extends from a world-class scientific knowledge base through to in-house manufacture, Micromeritics delivers an extensive range of high-performance products for oil processing, petrochemicals, and catalysts, to food and pharmaceuticals, and works at the forefront of characterization technology for next-generation materials such as graphene, metal-organic-frameworks, nanocatalysts, and zeolites. Under its premium brand Particulate Systems, Micromeritics discovers and commercializes innovative

material characterization technologies that are complementary to core product lines. Cost-efficient contract testing is offered via its laboratory Particle Testing Authority (PTA). The strategic acquisitions of Freeman Technology Ltd and Process Integral Development S.L. (PID Eng & Tech) reflect an ongoing commitment to optimized, integrated solutions in the industrially vital areas of powders and catalysis.

For additional information visit www.micromeritics.com

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