

News Release

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Johnson Matthey to offer Gusev Ester Hydrogenation Catalysts *via* an exclusive global licensing agreement with GreenCentre Canada.

Johnson Matthey (LSE: JMAT), a global leader in science that enables cleaner air, improved health and more efficient use of natural resources, today announced the successful scale-up and commercial availability of a novel Gusev catalyst for ester hydrogenation. Using licensed technology developed by GreenCentre Canada, the catalyst combines high activity with high chemoselectivity that could revolutionise industrial applications of ester hydrogenation.

The technology, which was originally conceived and developed in the laboratories of Professor Dmitri Gusev of Wilfrid Laurier University, was exclusively licensed from GreenCentre Canada, a provider of intellectual property services to support the development of chemistry-driven activities, to JM in 2016. Following this agreement, JM has scaled the manufacturing process of the Gusev catalyst, known as Ru-SNS, that shows exceptional activity for the important chemical transformation known as ester hydrogenation.

Ester hydrogenation is an essential transformation in the chemical industry used to form primary alcohols. It is widely used in the manufacture of a variety of commercial products including pharmaceuticals, detergents, cosmetics, flavours and fragrances.

Compared with existing industrial processes, the Gusev catalyst offers exceptional reactivity and improved selectivity, as well as possessing a higher tolerance of challenging functional groups. Reactions using this catalyst are also safer, owing to the milder operating conditions, and produce less environmental waste. The advantages offered by this catalytic process have the potential to greatly improve the economic and environmental performance of many large-scale commercial chemical processes.

"As a leader in the development and application of catalyst technologies, JM is delighted to add this new technology to its portfolio of leading capabilities," commented Gerard Compagnoni, General Manager at JM. "We believe that this new method of ester reduction will enable the development of many novel, elegant and sustainable processes."

About Johnson Matthey

Johnson Matthey is a global leader in science that enables a cleaner and healthier world. With over 200-years of sustained commitment to innovation and technological breakthroughs that improve the function, performance and safety of our customer's products. Our science has a global impact in areas such as low emission transport, pharmaceuticals, chemical processing and making the most efficient use of the planet's natural resources. Today more than 13,000 Johnson Matthey professionals collaborate with our network of customers and partners to make a real difference to the world around us. For more information, visit www.matthey.com

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Media enquiries:

For more information regarding JM, contact:

Kate Whelan
Notch Communications
+46(0) 70 238 11 49 / +44(0) 161 457 7230
kate.whelan@notchcommunications.co.uk