

News Release

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BASF introduces Altrium™ Fluidized Catalytic Cracking (FCC) catalyst to increase transportation fuel yields

- Superior coke selectivity through improved metals tolerance
- Deeper bottoms conversion for resid feeds to improve margins
- Flexible zeolite to matrix control to tune yield selectivity

BASF announced today the commercial launch of Altrium[™], a new Fluid Catalytic Cracking (FCC) catalyst for mild to heavy resid feedstock. Altrium incorporates BASF's newest Advanced Innovative Matrix (AIM) and the proven technology IZY (Improved Zeolite-Y). It has been optimized to increase transportation fuels yield (gasoline and distillate) while having a deeper coke selective bottoms conversion of resid feeds.

Altrium's commercial trials have confirmed its ability to deliver better economic performance through coke selectivity, deeper resid bottoms conversion, and by improving the gasoline and distillate yields that help increase a refiners' profitability.

BASF's AIM technology consolidates several novel matrix technologies that are selectively incorporated into the catalyst design for a broad selection of performance targets and applications. AIM technology enhances the performance of the FCC catalysts through the creation of a unique meso pore architecture to improve access for heavy resid molecules and improves the metals tolerance of the catalyst. Linking the AIM technology together with IZY technology creates this

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unique catalyst which can help refiners improve margins and provide the operating flexibility needed to quickly react to market changes.

"BASF continues to drive innovation to help our customers be more successful and Altrium is a creative combination of technologies creating value for our customers," says Detlef Ruff, Senior Vice President, Process Catalyst at BASF. "We are excited to see performance improvement with Altrium and the potential to make the refineries more profitable."

"BASF continues to rapidly respond to our customers' needs," says Jim Chirumbole, Vice President, Refining Catalysts at BASF. "Customers told us they needed a coke selective bottoms upgrading catalyst improvement and this product is a step up to meet the needs of the resid market looking to maximize transportation fuels. We are delighted to deliver this new product to the market."

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About BASF's Catalysts Division

BASF's Catalysts division is the world's leading supplier of environmental and process catalysts. The group offers exceptional expertise in the development of technologies that protect the air we breathe, produce the fuels that power our world and ensure efficient production of a wide variety of chemicals, plastics and other products, including advanced battery materials. By leveraging our industry-leading R&D platforms, passion for innovation and deep knowledge of precious and base metals, BASF's Catalysts division develops unique, proprietary solutions that drive customer success. Further information on BASF's Catalysts division is available on the Internet at www.catalysts.basf.com.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. More than 117,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €59 billion in 2019. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at www.basf.com.