



Joint News Release

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BASF and thyssenkrupp Uhde optimize STAR process[®] dehydrogenation technology and demonstrate significant sustainability benefits

- **Proprietary process to produce propylene from propane feedstocks, or iso-butylene from iso-butane feedstocks**
- **Reduction of CO₂ emissions and operating costs through lower energy consumption by up to 30%**
- **Significantly reduced investment costs and feedstock consumption**

BASF and thyssenkrupp Uhde achieved measurable improvements in the STAR process[®], a proprietary dehydrogenation process from thyssenkrupp Uhde that can produce propylene from propane feedstocks, or iso-butylene from iso-butane feedstocks. The technology has been optimized to reduce CO₂ emissions and operating costs through lower energy consumption by up to 30%, while also reducing investment costs and enabling additional feedstock savings. Started in 2020, thyssenkrupp Uhde focussed in this joint development on the optimisation and further development of the STAR process, while BASF validated the targeted improvements through an extended test program.

“The cooperation between BASF and thyssenkrupp Uhde over the past 18 months since announcing the joint development agreement has been exceptional and seamless”, says Guido Daniel, Executive Director Petrochemicals and Polymers at thyssenkrupp Uhde. “In a joint team effort, both partners have provided their specific expertise to improve the dehydrogenation process. The results show that we significantly exceeded our goals to reduce the consumption of energy and resources of the STAR process.”

Detlef Ruff, Senior Vice President, Process Catalysts at BASF, says: “We are proud to be part of this collaboration and to bring in our unique know-how as a world-leading catalyst manufacturer. This joint project is a perfect example of how we enable sustainability for our customers and partners.”

BASF

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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. Around 111.000 employees in the BASF Group contribute to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio comprises six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €78.6 billion in 2021. 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.

About thyssenkrupp Uhde

thyssenkrupp Uhde combines unique technological expertise and decades of global experience in the engineering, procurement, construction and service of chemical plants. We develop innovative processes and products for a more sustainable future and thus contribute to the long-term success of our customers in almost all areas of the chemical industry. Our portfolio includes leading technologies for the production of basic chemicals, fertilizers and polymers as well as complete value-chains for green hydrogen and sustainable chemicals. thyssenkrupp-industrial-solutions.com