# News Release

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## Shell qualifies BASF Sorbead® Adsorption Technology for Carbon Capture and Storage Applications

- **Sorbead Adsorption Technology provides an environmentally friendly solution for the dehydration of $CO_2$ prior to pipeline transportation and underground storage**
- **Allows operators to capture and store $CO_2$, reducing their overall carbon footprint**
- **Customers benefit from the reliability, ease of operation, and lower OpEx compared to molecular sieve technology**

Shell and BASF are collaborating to accelerate the transition to a world of net-zero emissions. To this end, both companies worked together to evaluate, de-risk, and deploy BASF's Sorbead® Adsorption Technology for pre- and post-combustion Carbon Capture and Storage (CCS) applications. The Sorbead Adsorption Technology is used to dehydrate $CO_2$ gas after it has been captured by Shell's carbon capture technologies such as ADIP Ultra or CANSOLV.

The Adsorption Technology has several advantages for CCS applications: Sorbead, an aluminosilicate gel material, is acid resistant, has high capacity for water, and regenerates at a lower temperature compared to activated alumina or molecular sieves. Furthermore, Sorbead Adsorption Technology ensures the treated gas is free of glycol and will meet stringent pipeline and underground storage specifications. Customers also benefit from long life, operational turndown flexibility and immediate on-spec gas at startup.

The Sorbead Adsorption Technology is now in Shell's portfolio for use in the

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numerous CCS projects around the world to achieve their Powering Progress strategy. “BASF has enjoyed a great partnership with Shell over the past several years and I am happy to see another successful qualification. BASF is proud to support Shell in their effort to reach net-zero emissions and work toward improving environmental conditions around the world”, says Dr. Detlef Ruff, Senior Vice President, Process Catalysts at BASF.

“The cost effective and efficient removal of water from $CO_2$ is essential for the success of carbon capture and storage and BASF Sorbead Technology provides an effective solution. Shell is pleased that the technology is now available for use within the company as well as by the support BASF will provide in implementing the technology for specific cases,” comments Lori Motherwell, General Manager Gas Processing Technology in Shell.

**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 110,000 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 is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €59 billion in 2020. 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.