We create chemistry

News Release

P218/23e
May 23, 2023

BASF's gas treatment technology to be used by Linde and Heidelberg Materials' large-scale CO_2-capture plant

- **Milestone paves the way for a more sustainable cement production**
- **Third industrial-scale OASE® blue carbon capture facility globally**

Ludwigshafen, Germany –May 23, 2023 – A CO_2 capture process, jointly developed by Linde, Heidelberg Materials, and BASF, and based on BASF's advanced OASE® blue technology, will be used for the first time at a large-scale CO_2-capture facility operated by Capture-to-Use (CAP2U) – a new joint venture established by Heidelberg Materials and Linde. The plant will be the world's first industrial-scale carbon capture and utilization (CCU) facility. Around 70,000 tons per year of CO_2 will be captured, purified and liquefied. Linde will sell the majority of the resulting liquid CO_2 as a feedstock for the chemicals industry and into the food and beverage end-use markets.

The process will also use the patented OASE® aerozone design – a technology that reduces dust and aerosol-induced emissions from the gas flow – in one of its first industrial applications.

"Our portfolio of OASE® technologies makes a significant contribution to sustainability and is perfectly suited to help our customers achieve their sustainability targets. This carbon capture and use unit facility has the potential to become a show-case project in a hard-to-abate sector. We are proud to work with Linde and Heidelberg Materials and contribute our more than 50 years of experience in industrial gas treatment and pave the way for a sustainable cement production," said Andreas Northemann, Head of BASF's global Gas Treatment business.

Media Relations
Klaus-Peter Rieser
Phone: +49 621 60-95138
klaus-peter.rieser@basf.com

BASF SE
67056 Ludwigshafen
www.basf.com
presse.kontakt@basf.com

According to a study by the Oxford Institute for Energy Studies, the cement industry is responsible for seven percent of global industrial greenhouse gas emissions. Despite the environmental techniques adopted by the industry, cement production is, and will continue to be, associated with significant amounts of CO_2 generation because it uses a calcination process to treat calcium carbonate (limestone). In contrast to other energy-intensive industries, emissions caused by fuel consumption do not constitute the major part of total emissions. As a result, carbon capture utilization and storage (CCUS) is essential to mitigate these hard-to-abate industrial emissions[1].

About OASE

With more than 50 years of experience, BASF offers its customers efficient gas treating solutions for a variety of applications such as natural gas, synthesis gas, and biogas. Worldwide, these solutions have been proven and demonstrated in about 500 reference plants. BASF markets its range of gas treating technologies, the corresponding solvents and complete technical services including the digital platform OASE connect under the brand OASE® – Gas Treating Excellence by BASF. The OASE products are parts of the system solutions that make a significant contribution to sustainability in the value chain. Compared to conventional technologies, OASE offers high efficiency in gas treatment and thus makes important contributions to conserving resources and reducing emissions by saving energy. For more information, please visit www.oase.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 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 €87.3 billion in 2022. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the United States. Further information at www.basf.com.

[1] Source: The role of CCUS in decarbonizing the cement industry: A German case study - Oxford Institute for Energy Studies (oxfordenergy.org)