

News Release

BASF's Process Catalysts research team receives 2023 Edison Patent Award for novel adsorbent

- **Awarded BASF US patent covers a novel method for reducing impurities in petrochemicals**
- **New adsorbent meets increased global customer demand for more sustainable products**
- **R&D Council of New Jersey awarded a team of BASF researchers for invention**

FLORHAM PARK, NJ, November 16, 2023 – A team of BASF catalysis researchers has been recognized by the Research & Development Council of New Jersey with the prestigious 2023 Edison Patent Award. The BASF researchers received the award in the environmental category for their patent addressing adsorbents and methods of making and using adsorbents. The patented innovative approach aims to remove impurities from industrial processing streams utilizing a safer and more environmentally friendly adsorbent composition based on bismuth.

New Jersey based BASF researchers Artem Vityuk, Al Maglio, Linda Hratko and former BASF researcher Keenan Deutsch were awarded The Edison Patent Award for 2023 at a ceremony held on November 15, 2023.

Adsorbents are used to remove impurities, e.g., from petrochemicals. High-value petrochemicals, especially plastics, rely on organic compounds, such as ethylene and propylene, as feedstocks during the production process. These compounds typically

contain arsine and phosphine which are contaminants to catalysts during downstream processing. Some adsorbents are lead based which is used when there are high reactivity components in the streams. BASF offers a portfolio of adsorbents, including the new lead-free adsorbent, registered as [PuriStar® R9-PAR S3](#), utilizing a more environmentally friendly composition removing arsine and phosphine from refined petroleum streams.

“Innovations from chemistry are becoming increasingly important for bringing sustainable solutions to the market. I congratulate the team very warmly on this great success. This example clearly shows that thanks to brilliant ideas of our researchers we always manage to make our existing product portfolio even better,” said Dr. Katrin Friese, Vice President, Catalysis Research, BASF SE.

BASF is actively developing its portfolio towards more sustainable solutions. This offer is met by increased global demand for more sustainable standards in chemical production. The novel approach in lead-free adsorbents for petrochemical processing introduces an environmentally friendly method with purity standards in useful conversion of materials and polymers.

“Sustainability is one of the key priorities for BASF’s chemical catalysts and adsorbents business. Our state-of-the-art innovative solution will enable customers to create value by ensuring hazard free material being used in their manufacturing steps and increasing the production efficiency for maximum output in their operation,” said Dr. Chris Wai, Vice President, global chemical market catalysts at BASF.

The Research & Development Council of New Jersey established the Edison Patent Award more than 40 years ago in recognition of Thomas Edison – who resided and conducted research in his laboratory in New Jersey. The annual award honors the state’s top inventors and research organizations who drive innovation and continue to position New Jersey as a global innovator. [Winners of the patent awards](#) are selected by a team of researchers from the council based on significance of a challenge, innovative approach, socioeconomical value and commercial influence.

About BASF

BASF Corporation, headquartered in Florham Park, New Jersey, is the North American affiliate of BASF SE, Ludwigshafen, Germany. BASF has approximately 16,000 employees in North America and

had sales of \$25.7 billion in 2022. For more information about BASF's North American operations, visit www.basf.com/us.

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.