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## Joint News Release

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### **Heidelberg University and BASF extend collaboration at jointly operated catalysis laboratory CaRLa for five more years**

- **Research collaboration at Catalysis Research Laboratory (CaRLa) in Heidelberg, Germany, extended until fall 2028**
- **One focus is now on new processes for chemical recycling of plastic waste**

BASF and Heidelberg University will continue to jointly operate the Catalysis Research Laboratory (CaRLa) for a further five years. The two partners signed an agreement to continue this successful research collaboration until 2028. Currently, 10 researchers are employed at CaRLa. Since the founding of the catalysis laboratory in 2006, more than 100 employees from 34 countries have been involved in the development of new processes for homogeneous catalysis and organic synthesis.

“Basic research in the field of homogeneous catalysis is important for BASF, as it helps us develop chemical processes that require less energy and generate less waste. CaRLa is thus an important cornerstone for us to achieve BASF’s sustainability goals,” said Dr. Helmut Winterling, President BASF Group Research. “At BASF, we have benefited in recent years from CaRLa’s broad expertise and research findings. We are therefore very pleased to continue our collaboration with Heidelberg University and our access to this chemical and technical know-how in the future.” Since 2015, 18 projects have been transferred to BASF research, where they are further developed for industrial applications. CaRLa therefore represents a successful collaboration between academic and industrial research.

“Going beyond the classic partnerships between science and industry, the concept of the CaRLa catalysis laboratory is based on close integration of the research fields. This accelerates the transfer of technology and knowledge into large-scale

applications, which is particularly important given that society is facing the challenge of sustainable resource use. Another important building block of this collaboration is promoting new talent. Young researchers benefit from this collaboration within the framework of CaRLa because the knowledge relating to sustainability that they acquire can also be applied in their subsequent careers in industry or academia,” said Prof. Dr. Katja Patzel-Mattern, Vice-Rector Innovation and Transfer at Heidelberg University.

To use raw materials more efficiently and reduce the CO<sub>2</sub> footprint of products and production processes, CaRLa has in recent years intensified its work on new processes for the chemical recycling of plastic waste. One example is selectively breaking down polyurethane plastics into basic building blocks which can be recycled to form polymers (complete plastics) again. Besides the development of new processes for chemical recycling, the scientists are also working on catalysis systems for the efficient production of bio-based and biodegradable polymers.

CaRLa’s work has so far resulted in 104 academic papers published in renowned journals. Moreover, the catalysis laboratory has filed 41 patent applications since its founding.

In connection with the extension of the contract, there will be organizational changes at CaRLa: Prof. Dr. Thomas Schaub and Dr. Jaroslaw Mormul will jointly assume leadership of the laboratory on the BASF side. In addition to Dr. Julia Schüller, Vice President Chemicals Research at BASF, Dr. Christian Rein, head of the research group Homogeneous Catalysis and Acrylics at BASF, will join the steering committee. From Heidelberg University, the steering committee includes organic chemist Prof. Dr. A. Stephen K. Hashmi as scientific manager, and inorganic chemist Prof. Dr. Peter Comba as another member.

CaRLa is an “Industry on Campus” project of Heidelberg University. With these projects – strategic collaborative research partnerships with companies located in the scientific hub of Heidelberg and the region – the university encourages the transfer of research results and scientific findings to business and industry. To accomplish this, the university establishes networks between basic research and application-oriented research by industry partners, thereby enabling the joint development of technological innovations.

## **Catalysts play a key role in industrial chemistry**

Catalysis is one of the most important technologies in industrial chemistry. More than 80 per cent of all chemical products come into contact with catalysts at least once during their synthesis. Catalysts reduce the need for energy and raw materials and help reduce waste. They enable new, resource-saving and less expensive methods for making established products as well as the efficient production of new products. Homogeneous catalysis is a special form of catalysis in which the reactants (substances that are consumed in the course of a chemical reaction) and the products exist in the same physical state (either solid, liquid or gas) as the catalyst.

### **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](http://www.basf.com).

### **About Heidelberg University**

Founded in 1386, Ruperto Carola is an internationally oriented research university whose subject spectrum includes the humanities, the social sciences, law, the natural, engineering and life sciences, and medicine. As one of the Universities of Excellence in Germany, Heidelberg University's successes in the Excellence Competitions and its standing in international rankings confirm its leading role in the academic landscape. It is part of Heidelberg University's self-concept to further develop outstanding individual disciplines, to strengthen interdisciplinary cooperation, and to carry research results over into society. With a research-oriented course of study in more than 180 programmes, its nearly 30,000 students can choose from a virtually singular array of subject combinations and individual qualification pathways.

[www.uni-heidelberg.de/en](http://www.uni-heidelberg.de/en)

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