



Press Release

200,000 euros for research into sustainable energy

The Eva Mayr-Stihl Foundation is funding a new Saltus! group at the University of Freiburg

Solar panels, batteries and fuel cells will all play a key role in the energy revolution. Interfaces and interphases control their efficiency and longevity. A Saltus! research group on sustainable energy at the University of Freiburg will in future work on advancing these technologies, with the help of 200,000 euros funding for two years from the Eva Mayr-Stihl Foundation. The Saltus! format is designed for research groups from the University of Freiburg's strategic areas and areas of potential. With its funding, the group will launch new joint projects, substantively further the profile fields 'Environment and Sustainability' and 'Functional and Bioinspired Materials' and boost the attractiveness and visibility of Freiburg as a home for international scientists. Prof. Dr. **Birgit Esser** from the Institute of Organic Chemistry, Prof. Dr. **Anna Fischer** and Prof. Dr. **Ingo Krossing** from the Institute of Inorganic and Analytical Chemistry and Dr. **Severin Vierrath** from the Department of Microsystems Engineering (IMTEK) will head the project.

"By establishing Saltus! groups we promote research projects that have outstanding scientific and innovative potential," says Prof. Dr. **Kerstin Krieglstein**, rector of the University of Freiburg. "We are very grateful to the Eva Mayr-Stihl Foundation for its generous support, which enables us to set in motion a highly promising project in the field of sustainability research."

The funding is part of a cooperation agreed in 2020 between the University of Freiburg and the Eva Mayr-Stihl Foundation, which will now provide a total

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of two million euros support for research and transfer activities in relation to 'Environment and Sustainability'. Explaining the Foundation's support for the project, director **Robert Mayr** said, "The Saltus! group is an important element in our commitment to sustainability research at the University of Freiburg. It is certain to further strengthen the university's deservedly excellent reputation in this field."

Saltus! group researchers will develop innovative interfaces and interphases for materials that are used to generate, convert or store energy. These control for instance the charge transfer or electrochemical reactions in systems: interfaces segregate areas with opposing charge carriers from one another, while interphases form a transitional area in which charge carriers such as ions can move freely. Interfaces are essential components in solar panels, photoelectrolysis cells and fuel cells. Interphases are a component of lithium ion batteries. The boundary layers substantially affect the lifespan and performance of the applications. The group will jointly develop concepts on how interfaces and interphases can be shaped in solar panels, batteries or fuel cells.

"The funding from the Eva Mayr-Stihl Foundation enables us to make decisive progress in the design of interphases and interfaces, for example in sustainable batteries," says Birgit Esser. "The unifying approach will significantly enhance our understanding of the fundamental processes in the various applications," sums up Anna Fischer.

The project combines expertise from four faculties and will complement the research of the Living, Adaptive and Energy-autonomous Materials Systems (*livMatS*) Cluster of Excellence of the University of Freiburg. It will unite researchers from the Freiburg Center for Interactive Materials and Bioinspired Technologies (FIT), the Freiburg Materials Research Center (FMF) and the Department of Sustainable Systems Engineering (INATECH) at the University of Freiburg and the Freiburg Fraunhofer Institute for Solar Energy Systems (ISE).

The Eva Mayr-Stihl Foundation was founded in 1986 by **Eva Mayr-Stihl** and her husband Robert Mayr. One of the key areas of the foundation's work is the funding of science and research. Since the 1990s it has made significant contributions to strategic developments in the Environment and Sustainability strategic area at the University of Freiburg – in particular by establishing both foundation and named professorships, as well as prizes and research funding, initially at the Faculty of Environment and Natural Resources, later also at the Department of Sustainable Systems Engineering (INATECH) of the Faculty of Engineering. The University of Freiburg has named Eva Mayr-Stihl and Robert Mayr honorary senators for their special contribution to the positive development of the university.

[More information about the cooperation agreement between the Eva Mayr-Stihl Foundation and the University of Freiburg](#)

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The University of Freiburg together with the Universities of Basel, Haute-Alsace and Strasbourg and the Karlsruhe Institute of Technology make up the Eucor – The European Campus association. It bundles the competencies and potential of 15,000 researchers, 11,000 PhD students and more than 120,000 students. Together, the universities are developing a shared strategy in research and teaching, and creating overarching structures for academic work in the Upper Rhine region.

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