

Newsletter 7 | August – December 2021

Highlights and updates from the Cluster of Excellence Living, Adaptive and Energy-autonomous Materials Systems (*livMatS*)

Dear *livMatS* Community, dear Colleagues and Friends,

If there is one thing we have learned this year, it is to be flexible and adapt our plans to the current conditions. And so we had to switch to a digital format for this year's retreat as well. We would have been very happy to finally meet everyone again in person in Breisach. Nevertheless, our virtual retreat was a great success, and it showed in an impressive way how far the cluster has already come in the last 3 years. We thank everyone for their valuable contributions and look forward to continuing the fruitful exchange in the future.

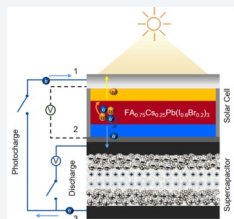
2022, again, has a lot in store for us. We will publish the Project Call 2022 to initiate new collaborative projects between individual *livMatS* scientists and the research areas. The first generation of *livMatS* doctoral researchers will complete their PhD theses and a second generation will shortly follow. Our Scientific Advisory Board will meet for the second time in March and we will participate in the Freiburg Rising Stars Conference. And last but not least: the cluster will contribute to the university-wide strategy process for the next Excellence Competition.

Best wishes for a joyous and peaceful Holiday Season and for health, success and happiness throughout the coming year to the whole *livMatS* community.

The *livMatS* Spokesperson Team
Jürgen Rühle, Anna Fischer, Thomas Speck

Highlighted Publications

Supplying Sustainable Technologies and Sensors Reliably with Energy

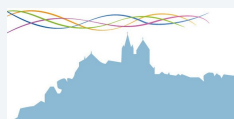


A team around Dr. **Taisiia Berestok**, Prof. Dr. **Anna Fischer**, **Christian Diestel** and Prof. Dr. **Stefan Glunz** have succeeded in developing a photosupercapacitor with an integrated perovskite solar cell. It can harvest, convert, store and deliver solar energy on demand in a single, compact system. They published their results in the scientific journal *Solar RRL*. [Read more](#)

[Find all *livMatS* publications here](#)

News

livMatS Retreat 2021: The Vision Clearly in Sight



This year's *livMatS* retreat could not take place in person and as planned in Breisach. But the virtual format also provided many opportunities to exchange ideas and initiate collaborations. [Read more](#)

*liv*MatS Pavilion in Two Exhibitions



The *liv*MatS pavilion was part of two exhibitions in 2021: In the exhibition "Natur Futur - Bioökonomie erleben" at the Natural History Museum Berlin from November 2 to December 5, 2021, models of the robot-wound flax fibers and of the saguaro cactus, which inspired the pavilion, were on display along with a picture of the pavilion. In addition, the "Anthropocene" exhibition at the Natural History Museum in Stuttgart is displaying a model of the pavilion. The exhibition will run until mid-June 2022.

Making Data Accessible, Recognizing Technological Potential



As the new *liv*MatS Data Steward, **Johannes Hörmann** will develop strategies and best practices for the management of research data. Also new to *liv*MatS is Dr. **Frank Scherag**, who will oversee the cluster's technology transfer as Intellectual Property Manager. [Read more](#)

Discover, Experiment and Understand



From October 21 to 23, 2021, the Science Days took place at Europapark Rust. At the *liv*MatS booth, the more than 8,000 visitors to the festival were able to experiment with shape-memory polymers, try out for themselves how hydrophobic surfaces or metamaterials behave, and learn why thermoresponsive plastics change color. [Read more](#)

Expand and Facilitate Data Access for Materials Researchers



Better access to data is now promised by a project led by Freiburg scientists and involving *liv*MatS: "NFDI-MatWerk". It aims to structure as many decentrally hosted data collections as possible in the field of materials science. "NFDI-MatWerk" is one of ten consortia of the National Research Infrastructure NFDI. [Video about NFDI-MatWerk](#)

New Round of *liv*MatS Master Lab Kicks off



On October 15th, fourteen Master students from various study programs came together for the third iteration of the *liv*MatS Master Lab. Students from polymer sciences, engineering, psychology and philosophy successfully applied to the semester-long program and received stipends to work on *liv*MatS-themed research challenges. [Read more](#)

First *liv*MatS Young Researchers Retreat



From September 30 to October 1, 2021, the first *liv*MatS Young Researchers Retreat took place. Due to the Corona pandemic, many young researchers have not had the chance to meet their peers properly, yet. The goal of this retreat was to jump-start the interaction between them, so that it become even more frequent and fruitful in the future. After a team building workshop the young researchers visited various workshops on topics such as time management, conflict management and scientific writing.

Awards

The **livMatS pavilion** was awarded at the "Materialpreis 2021". The Stuttgart-based company "raumprobe" has been awarding the prize since 2013 to honor new material developments and innovative building materials as well as their use in the built project.

[Read more](#)

Prof. Dr. Wolfram Burgard has received the 2022 IEEE Robotics and Automation Award for his contributions to the fundamentals and applications of robot navigation and perception. [Read more](#)

Upcoming Events



Pedro M. Reis

Jan 19 2022

livMatS Colloquium

Prof. Pedro Reis | Ecole Polytechnique Federale de Lausanne

A Virtual lab tour of the Flexible Structures Laboratory at EPFL



Marc Willinger

Feb 9 2022

livMatS Colloquium

Dr. Marc Willinger | ETH Zürich
t.b.a.



Stephen Schrettl

Mar 16 2022

livMatS Colloquium

Prof. Stehpan Schrettl | University of Fribourg
t.b.a.

[The livMatS Events Calendar](#)

We welcome feedback and comments on the newsletter and suggestions for the next issues (pictures, texts or topics). Please contact sonja.seidel@livmats.uni-freiburg.de.

Living, Adaptive and Energy-autonomous Materials Systems (*livMatS*) is an interdisciplinary, DFG-funded Cluster of Excellence at the University of Freiburg.



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