WE MAKE MATERIALS FIT FOR THE FUTURE!

Fraunhofer Institute for
Applied Polymer Research IAP

Potsdam Science Park

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Fraunhofer IAP - News

We make materials fit for the future!

Dear reader,

In 2022, the Fraunhofer IAP will turn THIRTY!
In 1992 we started with 106 employees and 4 research divisions in Teltow. Today, about 250 employees work in 7 research divisions at 7 locations. Our subject areas and competencies have continued to develop along the needs of society and industry, so that today we can offer a range of sustainable and innovative materials and technologies along the entire value chain.

Despite all our successes, we have our sights firmly set on the next 30 years. With new materials for the bioeconomy, sustainable and energy efficient processes for industry and holistic solutions for health and quality of life, we will provide important contributions.

We look forward to going down this path together with you, our partners and our employees!

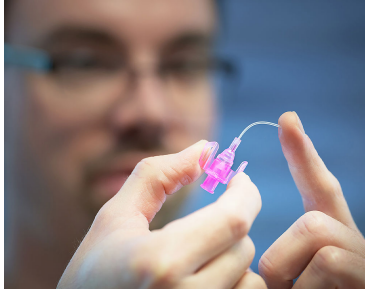
Yours sincerely,

Prof. Alexander Böker

NEWS FROM RESEARCH AND DEVELOPMENT

Health and Quality of Life

From medical applications to sporting goods – biocompatible and sustainable plastics

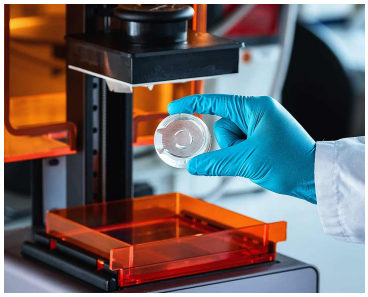


Numerous plastic products are made of polyurethanes. Fraunhofer researchers have developed a manufacturing method for polyurethanes that avoids use of toxic isocyanates while making use of carbon dioxide as a starting material. Sustainable polyurethanes of a reproducible standard are being developed in collaboration with partners from industry.

MORE INFORMATION

Health and Quality of Life

Personalized medicine: 3D printing enables tissue with customized shape

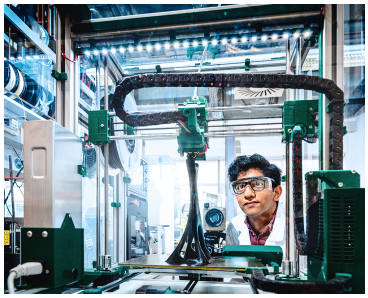


In the case of severe soft tissue injuries, tissue transplantation is sometimes unavoidable. For the patient, however, this means a serious intervention. In the future, the missing tissue could grow back directly in the patient's body - in isolation chambers that can be implanted under the skin and individually adapted to the wound geometry.

MORE INFORMATION

Industry and Technology

4D printing: heat shrinks printed objects



Printed polymers that change shape once in a predefined way when heated? This is now possible thanks to a 4D printing technology developed in the Fraunhofer Cluster of Excellence Programmable Materials CPM. The extent of the change in shape of the printed objects is drastic: they can shrink by up to 63 percent.

MORE INFORMATION

Bioeconomy and sustainability

Interview with Dr. Christina Gabriel-Liebs about coatings made from starch

“I want to research possibilities for living a sustainable life”. In an interview with Potsdam Science Park, our scientist Dr. Christina Gabriel-Liebs presents the potential of renewable raw materials for coating surfaces.

TO THE INTERVIEW

ON OUR OWN ACCOUNT

Focus Future

The Fraunhofer IAP celebrates its 30th anniversary. We proudly look back on a successful history and look forward to the next 30 years together with our scientists.

What contribution do composites make to the energy turnaround?

Prof. Dr.-Ing. Holger Seidlitz, lightweight design expert and head of the research division „Polymer Materials and Composites PYCO“ at Fraunhofer IAP gives an outlook.

MORE INFORMATION

What contribution do composites make to the energy turnaround?

Dr. Antje Lieske, head of department “Polymer Synthesis” at Fraunhofer IAP, develops new synthesis processes for sustainable plastics.

MORE INFORMATION

How do we manage water as a resource sustainably?

Dr.-Ing. Murat Tutuş, head of department for "Membranes and Functional Films" at the Fraunhofer IAP, is an expert in the selective separation of mixtures of substances.

MORE INFORMATION

We make materials fit for the future!

Creative solutions are the key to overcoming the challenges of the present and the future - whether they be climate change, pandemics, the energy transition, structural change or new mobility concepts.

Fraunhofer IAP tackles these challenges through innovative materials, processes and technologies, targeting the entire

value chain - from the idea to the customized prototype.

Our subject areas:

- BIOECONOMY and SUSTAINABILITY
- ENERGY TRANSITION and MOBILITY
- HEALTH and QUALITY of LIFE
- INDUSTRY and TECHNOLOGY

TO THE HOMEPAGE

Potsdam Science Park

Fraunhofer IAP is part of the largest science location in the state of Brandenburg: the Potsdam Science Park. Just 30 minutes from the center of Berlin, more than 12,500 people research, work and study in the fields of biotechnology, medical technology, optics, geosciences, astrophysics and gravitational physics. On an area of more than 50 hectares, the innovation- and founder-friendly park continues to offer office and laboratory space for startups and ready-to-build plots for small and medium-sized companies. We live science!

TO THE HOMEPAGE OF THE POTSDAM SCIENCE PARK

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undertaken by our researchers and developers has a significant impact on people's lives. We are creative. We shape technology. We design products. We improve methods and techniques. We open up new vistas. In short, we forge the future.

Fraunhofer Institute for Applied Polymer Research IAP

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