

## We make materials fit for the future!



Dear reader,

At Fraunhofer IAP we focus on **sustainable polymers**. The team at the Pilot Plant Center PAZ develops environmentally friendly polymer materials as well as resource- and energy-efficient synthesis processes. In September, we inaugurated a new expansion building with **additional capacities for more sustainable polymer syntheses** up to the ton scale. [Read on](#).

Dr. Taybet Bilkay-Troni, head of the "Polymers and Electronics" department at Fraunhofer IAP, and her team succeeded in synthesizing a new class of promising [anion exchange polymers](#) and manufacturing membranes from them. These membranes enable the production of electrolyzers that do not contain per- and polyfluoroalkyl substances (PFAS). This paves the way to environmentally friendly **hydrogen** as a climate-neutral source of energy.

Get to know more topics from our exciting research world. Learn, among other things, how our counterfeit-proof barcode system SmartID allows its users to verify the authenticity of products. Also, browse our event calendar. Save important dates for 2024 with more to come.

Enjoy reading.

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## NEWS FROM RESEARCH AND DEVELOPMENT

Industry and Technology

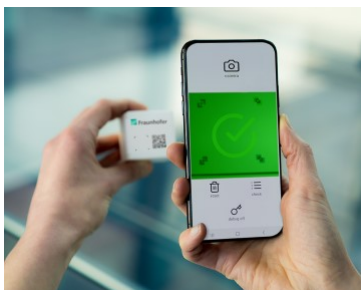
### More sustainability in the polymer industry – Fraunhofer PAZ expands facilities



The new expansion building of the synthesis plant of the Fraunhofer PAZ in Schkopau provides around 550 m<sup>2</sup> of space for research and development. The main focuses are innovative synthetic rubbers and energy-efficient synthesis processes. The new building was financed with approximately seven million euros from funds of the European Union (ERDF), the Ministry of Science, Energy, Climate Protection and the Environment of the state of Saxony-Anhalt and the German Federal Ministry of Education and Research.

[MORE INFO](#)

### Checking for counterfeit medication using a smartphone



Particularly with medication or medical devices sold online, end-users often wonder whether these are real or fake. In order to provide consumers with a way to confirm the authenticity of medications as well as products of all kinds, the Fraunhofer Institutes for Applied Polymer Research IAP, for Secure Information Technology SIT, and for Open Communication Systems FOKUS have developed a novel

[MORE INFO](#)

Energy Transition and Mobility

## Novel anion-conducting membranes for electrolysis



Researchers at Fraunhofer IAP succeeded in synthesizing a new class of promising anion exchange polymers and manufacturing membranes from them. These membranes are the basis for the development of low-cost, efficient electrolyzers. The membranes do not contain per- and polyfluoroalkyl substances (PFAS).

[MORE INFO](#)

Bioeconomy and Sustainability

## "Sustainable membranes are the invisible heroes of our everyday lives"



Dr.-Ing. Murat Tutuş develops technical membranes for industrial use at Fraunhofer IAP. Membrane technology is versatile and deeply integrated into our lives - from water filtration in sewage treatment plants to ventilators in medicine. That is why sustainability is important in his work. In the blog of Potsdam Science Park, he talks about his ideas and solutions for environmentally friendly membranes.

[→ read the blog](#)

[MORE ABOUT MEMBRANES](#)

## What drives the circular plastics economy?



Transforming the linear plastics economy into a circular one is the mission of the Fraunhofer Cluster of Excellence Circular Plastics Economy CCPE. Professor Alexander Böker, Director of Fraunhofer IAP and member of the Board of Management of Fraunhofer CCPE, explains in an interview why biobased polymers and recyclates of high quality are important for a circular plastics economy,

[→ watch the video-interview](#)

[Interview with Dr. André Lehmann about sustainability and plastics](#)



"It's all about making sure the circular plastic economy is energy-efficient, with the lowest possible level of loss."

Dr. André Lehmann heads the Fiber Technology department at Fraunhofer IAP. In an interview with Fraunhofer magazine, he reveals why he is fascinated by plastics and how they can be integrated into circular recycling systems.

[→ read the interview](#)

MORE ABOUT FIBER TECHNOLOGY

## YOUR TEAM AT FRAUNHOFER IAP

### Professor Alexander Böker appointed to the board of directors of the GDNÄ



For the 133rd assembly of the Society of German Natural Scientists and Physicians (GDNÄ), Professor Alexander Böker, Director of Fraunhofer IAP, has assumed the position of Managing Director for the Business Division. The event will take place from September 12 to 15, 2024 in Potsdam under the motto "Science for our life of tomorrow".

MORE INFO

### Appointment as honorary professor at the Berlin University of Technology



Dr. Joachim Storsberg has been an honorary professor in the Pharmaceutical and Chemical Engineering program at the Berlin University of Technology BTH since September. At Fraunhofer IAP, he develops new high-tech materials for medical technology, such as implants and drug delivery systems.

DISCOVER BIOMATERIALS FOR MEDICINE

## SAVE THE DATES 2024

Paris, France | March 5, 2023 - March 7, 2024

**JEC World**

Munich, Germany | March 6, 2024 - March 7, 2024

**LOPEC**

Hannover, Germany | April 22, 2024 - April 26, 2024

## Hannover Messe

Potsdam, Germany | May 4, 2024

### Potsdam Science Day

Jeju International Convention Center, Korea | August 14, 2024 - August 16, 2024

### IMID International Meeting on Information Display

Berlin, Germany | September 24, 2024 - September 27, 2024

### InnoTrans

Düsseldorf, Germany | November 11, 2024 - November 14, 2024

### MEDICA

Frankfurt am Main, Germany | November 19, 2024 - November 22, 2024

### Formnext

## 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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