



//

Holistic lightweight design plays a key role in making products sustainable in applications. However, the diverse material combinations challenge the end-of-life management and the recyclability too often. Adapting this diversity without sacrificing lightweighting benefits or reducing it with material developments is one of the research goals within Fraunhofer CCPE."

Prof. Dr. Frank Henning
Board of Management | Director Fraunhofer ICT



Materials for the Circular Economy in Efficient Lightweight Design



How can lightweight design become more circular? What role are composites playing in this? And what developments in this field is the Fraunhofer CCPE researching? Sascha Kilian, Head of the Research Department Application and Demonstration at the Fraunhofer Cluster of Excellence Circular Plastics Economy CCPE, answers these questions in a short interview. More information on the state of research in the recycling of lightweight materials awaits interested parties at the online event "Fraunhofer CCPE compact - Materials for the Circular Economy in Efficient Lightweight Design" on October 19 from 2 to 4 pm.

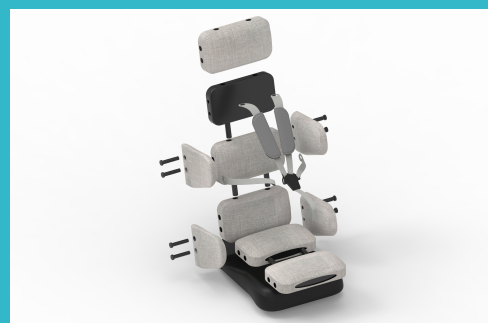
[MORE INFO](#)

News from the CCPE research

Bioadditives – nature's best for plastics



Circular Design: Increasing Circularity and Intensity of Use



In a circular economy, products are kept in

Small quantities show a big effect - this is how additives for plastics could be described in a few words. Today, plastic additives are still mainly obtained from petrobased sources. However, phenolic antioxidants are also found in nature. Fraunhofer CCPE employees are researching to produce efficient additives from suitable plant raw materials.

[MORE INFO](#)

circulation for as long as possible and used as intensively as feasible by consumers. At the end of their life, they are recycled as completely as it is possible so that new products can be made from the materials.

[MORE INFO](#)

Future recyclate use rates - Possible material cycles



Scientists at Fraunhofer CCPE are looking at ways in which non-deposited plastic packaging can be taken back by retailers and returned to a (closed) material cycle as part of their activities on take-back systems for plastic packaging. This includes a wide range of packaging for consumer goods, e.g. from the food and hygiene product range.

[MORE INFO](#)

New guide to the future of plastics



How does a future-proof, circular and sustainable plastics economy look like? The answer is a balance ranging from plastics reduction to a sustainable use of recyclable plastics. With four strategic approaches, researchers from the German institute Fraunhofer UMSICHT and the Dutch institute TNO now provide insights into how this future scenario could look like in their recently published white paper "From #plasticfree to future-proof plastics".

[MORE INFO](#)

You can meet us here

October 19, 2023

**Fraunhofer CCPE compact:
Materials for circularity in efficient
lightweight design**

[MORE INFO](#)

May 06 - October 15, 2023

**Fraunhofer CCPE in the
exhibition "World Trade. History,
Present, Perspectives"**

[MORE INFO](#)

Contact



Dr. Hartmut Pflaum

Head of CCPE Office

Fraunhofer UMSICHT

+49 208 8598-1171

[→ Send e-mail](#)



Kristiane von Imhoff

Head of Marketing CCPE

Fraunhofer UMSICHT

Telefon +49 208 8598-1443

[→ Send e-mail](#)

© 2023 Fraunhofer Institute for Environmental, Safety, and Energy Technology UMSICHT

Folgen Sie uns



[CONTACT](#)

[PUBLISHING NOTES DATA PROTECTION POLICY](#)

Fraunhofer is Europe's largest application-oriented research organization. Our research efforts are geared entirely to people's needs: health, security, communication, energy and the environment. As a result, the work 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.

The Fraunhofer Institute for Environmental,
Safety, and
Energy Technology UMSICHT
Osterfelder Str. 3
46047 Oberhausen
Germany
Phone +49 208 8598-0

is a constituent entity of the Fraunhofer-
Gesellschaft, and as such has no separate legal
status.
Fraunhofer-Gesellschaft
zur Förderung der angewandten Forschung e.V.
Hansastraße 27 c
80686 München
Internet: www.fraunhofer.de

Umsatzsteuer-Identifikationsnummer gemäß § 27
a
Umsatzsteuergesetz: DE 129515865

Unsubscribe from our newsletter service.

[→ Unsubscribe](#)

[→ Unsubscribe from the entire institute](#)

[→ Tell a friend](#)

Unsubscribe from all of our newsletter services:
Please consider, that you will not receive any
further mails from any Fraunhofer institution after
your unsubscription.

[→ Unsubscribe from all of our newsletters](#)

Registergericht
Amtsgericht München
Eingetragener Verein
Register-Nr. VR 4461

Copyright:

Title: @ Photo XYZ/Fotolia.de | Article: © Photo Fraunhofer | ...