Fraunhofer CCPE

Fraunhofer Cluster Circular Plastics Economy CCPE
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CCPE Newsletter 2/2021

Dir Sir or Madam,

The Fraunhofer Cluster Circular Plastics Economy CCPE aims to improve the recyclability of plastic ma-terials with its research. Material mixtures hamper this process. For both mechanical and chemical re-cycling, it is therefore important to ensure that the materials are easy to separate or to design them directly in a way that they consist of only one material. Thus, the researchers in the cluster are working on so-called monomaterial composites made of polylactic acid (PLA). Here, the reinforcing fibre consists of a PLA stereo complex (scPLA) in a PLA matrix. This eliminates the need for material separation of the components in the process. In addition, PLA can be recycled very well chemically and the lactic acid or its esters can be returned to the process. You can learn more about this in our Fraunhofer CCPE compact event series on »Chemical Recycling - Most wanted for a Circular Economy?« on the 16th of June.

If you find these approaches as exciting and appealing as we do, please feel free to contact us - let's create a more circular plastics world together!

Yours sincerely,

Prof. Dr. Alexander Böker
Board of Management / Division Leader Materials

Chemical Recycling - a means of choice?

Chemical recycling can also be used to recycle heterogeneous or contaminated plastic waste. The most important processes, their potentials and the legal framework conditions are presented in the online seminar Fraunhofer CCPE compact »Chemical Recycling« on the 16th of June 2021 as well as in the position paper »Recycling

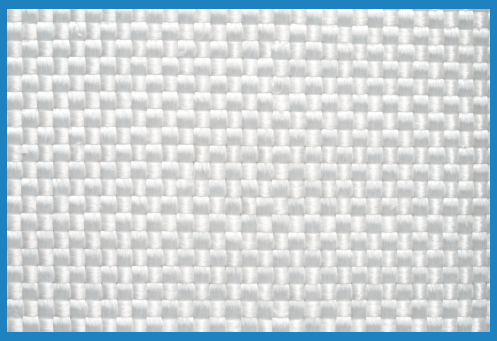
Technologies«.

MORE INFO

News from the CCPE research

Division Materials

Stable and circular: Thermally stable self-reinforced PLA composites

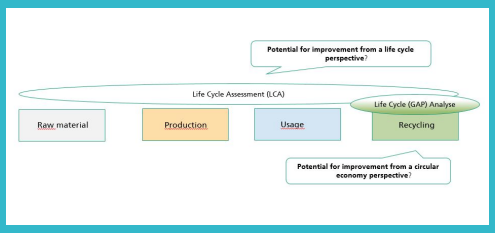


Fraunhofer CCPE researchers are investigating composites made of thermally stable PLA filaments and a chemically identical matrix. In recycling processes, these materials have a clear advantage over established fibre-reinforced systems and thus offer an option to contribute to the UN Sustainable Development Goals.

MORE INFO

Division Systems

Circularity, sustainability, environmental impact – the life cycle assessment of your new development



What contribution does your new development make to the circular economy? And what about the overall balance? Does the overall bottom line improve? Answers to these questions are provided by the Life Cycle Assessment (LCA) in the Fraunhofer CCPE cluster by evaluating the circular economy properties of a product over its entire life cycle

MORE INFO

Division Business

Light, rigid, sustainable – cycle-optimised lightweight plastics

For many products, a large part of the CO2 emissions occur during the use phase.

Division Business

Innovative business models: Transformation towards a circular future!

These can be significantly reduced through lightweight construction. Due to their unrivalled weight-specific properties, fibre-reinforced plastics play a key role in this context.

MORE INFO

How can linear value creation logics be transformed into circular ones? What tasks are expected by companies in the transformation process and can a supposed obstacle, properly addressed, not rather become an individual lever and advantage? All these questions lead to the development of a new methodology by the Business Division of Fraunhofer CCPE!

MORE INFO

You can meet us here

16 June 2021

Fraunhofer CCPE compact: Chemical Recycling - Most wanted for a Circular Economy?

MORE INFO

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