TECHFLASH

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We are pleased to introduce you to Fraunhofer TechFlash - Fraunhofer's Flash News on latest and exciting technologies.
This week's TechFlash is about new technologies in **Process Engineering and Packaging**:

1. Cost-effective methods for modelling migration from paper-based packaging materials
2. Ensuring product quality using food scanners
3. Consultation services for developing company-specific digital transformation strategies

Fraunhofer Institute for Process Engineering and Packaging (IVV) develops technologies for the food and packaging industries, such as packaging and processing machinery construction, the chemical industry, the pharmaceutical and cosmetics sectors. The agricultural industry benefits from the expertise and the technologies that Fraunhofer IVV develops. The range of services include Food, packaging, processing machinery, product impact, and recycling and the environment.

Cost-effective methods for modelling migration from paper-based packaging materials

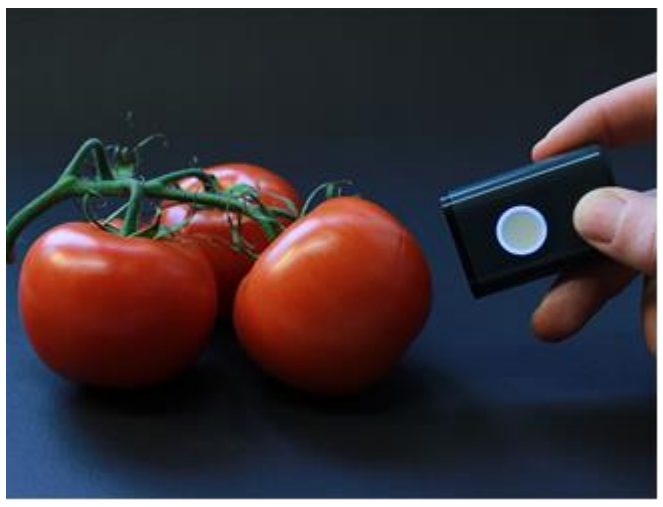
The requirements for compliance testing and safety assessments with respect to the transfer of substances from food packaging are steadily growing. Even very low migration limits must be taken into account. For paper and cardboard packaging, standardized extraction and migration tests with food simulant E are mainly used for dry foods. However, these tests can seriously overestimate the real level of migration, resulting in materials being unjustifiably deemed to be non-compliant with food law requirements. The aim is to establish realistic test methods and model-based prediction methods for the material transport process of chemical substances to and from fibre-based packaging materials.

Fraunhofer IVV also supports in developing tailored sustainable packaging concepts in line with the principles of the circular economy.

We look forward to hearing of your interest to discuss your requirement.

Yes, I am interested

Ensuring product quality using food scanners



Fraunhofer IVV's "Monitoring Quality Changes" working group is researching the application of food scanners in the food industry. The sensor technology deployed in these scanners is often based on infrared spectroscopy, which is used to determine the chemical composition of food. Specially designed sensor concepts are used so that the food scanners can be provided at a fraction of the price of conventional IR spectrometers. Thanks to their compact design and cost efficiency, these devices can be used for a wide range of mobile applications at various levels of the value chain. One key feature of the technology is the detection of quality changes that are not visible to the naked eye, which offers huge potential for reducing food waste and verifying the authenticity of products.

We are happy to advise you on the use of optical methods for conducting quick quality assessments.

We look forward to hearing of your interest to discuss your requirement.

Yes, I am interested

Consultation services for developing company-specific digital transformation strategies

The intelligent automation of manual processes, the industrial internet of things (IIoT), networked production and connected data exchange encompassing the entire value chain all offer solutions to challenges we are currently facing, such as ensuring the resilience of processes, facilitating the transition to the circular economy and tackling the shortage of skilled workers. However, the practical implementation of these concepts poses new challenges for companies. This is particularly the case when integrating digital transformation solutions into existing systems, as a wide range of requirements and conditions must be taken into account.

Fraunhofer IVV supports companies in their transformation by developing company-specific technology and assistance solutions as well as individually tailored software for supporting system integration and AI applications for the production process.

We look forward to hearing of your interest to discuss your requirement.

Yes, I am interested

About Fraunhofer-Gesellschaft:

The Fraunhofer-Gesellschaft, headquartered in Germany, is the world's leading applied research organization. With its focus on developing key technologies that are vital for the future and enabling the commercial exploitation of this work by business and industry, Fraunhofer plays a central role in the innovation process. As a pioneer and catalyst for ground-breaking developments and scientific excellence, Fraunhofer helps shape society now and in the future. Founded in 1949, the Fraunhofer-Gesellschaft currently operates 76 institutes and research institutions throughout Germany. The majority of the organization's 30,000 employees are qualified scientists and engineers, who work with an annual research budget of 3 billion euros. Of this sum, 2.5 billion euros is generated through contract research. Our global footprint is very strong, with offices and research centres in the USA, Europe and Asia. Some of our renowned innovations are the MP3 software, white LED's and the smallest of cameras.

Fraunhofer has been a long-time trusted innovation partner in India, collaborating with some of the major players in the field of Material Science, Energy, Environment, Automotive, Electro-mobility, Production Technology and Smart Cities, working with Industry, Government and Public Sector.

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