Fraunhofer
FEP

PRESS RELEASE

22 | 17

Fraunhofer FEP awarded as „Innovator of the Year" twice

The scientists of Fraunhofer FEP are pleased about two awards: the editors of DESIGN&ELEKTRONIK were searching for the "Innovator of the Year" for the first time. The readers of the magazine have chosen Fraunhofer FEP as the winner of even two categories for the research in the field of flexible glass and for the latest innovations regarding OLED microdisplays.

Until September 2017 the readers of the business magazine DESIGN&ELEKTRONIK were asked to choose the companies with the most innovative ideas, which are needed to construct top products. These result from the smart combination of design, production and IP. With the award of the "Innovator of the Year" the magazine honors the stars behind the products for their development of top technologies. The winner in even two categories was Fraunhofer FEP.

The development of thin-film coating processes for ultra-thin glass and its integration into organic and hybrid electronic devices for the application of this new material in high-tech products are current research areas at Fraunhofer FEP. Even since 2013 we are working on new applications for ultra-thin and flexible glass together with our partners SCHOTT AG, VON ARDENNE GmbH and tesa SE within the public funded project KONFEKT (funding project 13N13818). Furthermore a roll of flexible thin glass, which was coated with highly conductive ITO continuously on 100 meters with roll-to-roll technology, has been presented for the first time.

Also the research and development within the field of OLED microdisplays and sensors made great progress. Our scientists developed new technologies for extremely energy saving but at the same time high-resolution OLED microdisplays, which are optimal for the use in wearable near-to-eye displays. Furthermore new possibilities for the integration of bidirectional OLED microdisplays in AR- and VR- applications, for optical fingerprint sensors and for the display of 2D- and 3D-content in data eyeglasses have been developed. Organic photodiodes on silicon-CMOS-chips/wafers for the detection within the NIR range with high resolutions have also been presented in 2017.

Fraunhofer FEP has now been awarded with the prize as "Innovator of the Year" for these results within the coating and functionalization of flexible glass and the research for microdisplays and sensors. As representatives for all scientists of the institute Dr. Manuela Junghähnel and Dr. Uwe Vogel received the awards of DESIGN&ELEKTRONIK on 8th November 2017 in Munich and comment unanimously: "We are very pleased

Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology FEP
Winterbergstraße 28 | 01277 Dresden, Germany | www.fep.fraunhofer.de

Head of Marketing: Ines Schedwill | Phone +49 351 8823-238 | ines.schedwill@fep.fraunhofer.de

Head of Corporate Communications: Annett Arnold, M.Sc. | Phone +49 351 2586-333 | annett.arnold@fep.fraunhofer.de

about this honor, which shows that our research for the products of tomorrow is of great interest for the readers, end users and partners! The award is a great motivation and encourages us to go forward with our developments and to face and meet new challenges in the functionalization of surfaces and new materials. Also together with R&D-partners for microdisplays and sensors we want to develop many new solutions, which can be integrated into innovative products from all spheres of life and transferred to industry. These include some so far unsolved challenges like very high luminosities and efficiency (wherefore the color filters used until now have to be replaced by directly structured emitters). Furthermore good yield with large (chip-) area, curved surfaces (for a more compact optic), circular illuminated areas, irregular pixel array with higher pixel densities or integrated eye tracking and transparent substrates are among the interesting objectives."

To take the various sectors of developments into account, which are regularly topics of the magazine, DESIGN&ELEKTRONIK nominated the best companies and institutions in the categories digital technology, chip manufacturing, analog instrumentation, metrology, optoelectronics, electromechanics, passive devices and services. Fraunhofer FEP won the prize as a part of the "best research consortium" within "KONFEKT" and within the category "optoelectronics".

Flexible glass
© Fraunhofer FEP, Fotograf: Jürgen Lösel
Picture in printable resolution: www.fep.fraunhofer.de/press

OLED Microdisplay
© Fraunhofer FEP, Photographer: Jürgen Lösel
Picture in printable resolution: www.fep.fraunhofer.de/press

The **Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology FEP** works on innovative solutions in the fields of vacuum coating, surface treatment as well as organic semiconductors. The core competences electron beam technology, sputtering and plasma-activated deposition, high-rate PECVD as well as technologies for the organic electronics and IC/system design provide a basis for these activities. Thus, Fraunhofer FEP offers a wide range of possibilities for research, development and pilot production, especially for the processing, sterilization, structuring and refining of surfaces as well as OLED microdisplays, organic and inorganic sensors, optical filters and flexible OLED lighting. Our aim is to seize the innovation potential of the electron beam, plasma technology and organic electronics for new production processes and devices and to make it available for our customers.