

## BASF, Philips develop OLED lighting for use as transparent car roof

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Transparent OLEDs are still in the research phase. Philips is leading research in this area and is the first to demonstrate transparent OLEDs in an application environment such as the car roof lighting concept with BASF.

(PhysOrg.com) -- BASF and Philips have achieved a practical breakthrough in the development of OLED (Organic Light Emitting Diode) technology that allows it to be integrated in car roofs. The OLEDs are transparent when switched off, allowing for a clear view outside the vehicle, yet providing light only within the vehicle when switched on. This OLED lighting concept for car roofs is the result of a longstanding cooperation between BASF and Philips in the research and development of OLED modules.

In addition to offering completely new design possibilities, the transparent OLED lighting concept also allows new approaches to automotive engineering. The transparent OLED sandwich structure can be combined with equally transparent [solar cells](#).

“This combination allows the driver to enjoy a unique open-space feeling while it generates electricity during the day and pleasantly suffuses the interior with the warm light of the transparent, highly efficient OLEDs at night,” said Dr. Felix Görth, head of Organic Light-Emitting Diodes and Organic Photovoltaics at BASF Future Business GmbH.



Philips' transparent OLED module for car roof lighting concept developed with BASF emits light into the vehicle when switched on.



Philips' OLED module for car roof lighting concept developed with BASF is transparent when switched off.

Dr. Dietrich Bertram, General Manager of OLED Lighting at [Philips](https://www.philips.com), added: “This project provides impressive evidence of new possibilities with OLEDs, and illustrates the potential of Philips’ Lumiblade OLED technology to help create innovative lighting applications that enhance people’s lives.”

BASF and Philips have cooperated closely since 2006 within the OLED 2015 initiative of Germany’s Federal Ministry of Education and Research (BMBF). [BASF](https://www.basf.com) develops organo-chemical materials such as dyes that are used in the development and manufacturing of OLEDs by

Philips. Working together, the two partners put the innovative transparent OLED lighting technology into practice on a car roof.

OLED technology offers the advantage of high energy efficiency, in addition to creative flexibility and new options for designers. OLED light sources are just 1.8 millimeters thin and can be transparent. The entire surface of an [OLED](#) illuminates with diffused light, making it a very soft light source that produces less harsh shadows compared to point light sources.

Source: Philips Electronics

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