PRESS RELEASE

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NOVALED REACHES A NEW RECORD FOR OLEDS

Novaled, the world leader in power efficiency for organic light emitting diodes (OLEDs), has developed a red top emission OLED achieving 10 lm/W at 500 cd/m² with a projected lifetime of more than 100,000 hours.

Organic light emitting diodes (OLEDs) that emit light away from the substrate (top emission type) are a key feature for future OLED applications. For displays, the top emission OLEDs increase the available light up to 50%, while when used in lighting applications they make possible cheap non-transparent and flexible substrates.

Novaled with its proprietary PIN OLED technology is the world leader in power efficient OLED technology. Novaled has achieved the highest power efficiency together with the longest OLED lifetime for top emission OLEDs by using its optimised transport layer doping technology. The combination of a red phosphorescent emitter system from Covion (Covion Organic Semiconductors GmbH, Germany) with the Novaled molecular dopant materials in the Novaled PIN structure resulted in a top emission OLED providing 10 lm/W with a projected lifetime of 100,000 hours at 500 cd/m^2. This power efficiency for the very deep red CIE color coordinates (0.68/0.32) translates into 14 cd/A current efficiency and 3.0 Volt operating voltage. The lifetime measurement was carried out at a brightness of 3500 cd/m² in order to elevate the OLED ageing process. At this starting brightness, 8000 hours of continuous operation were determined.

“The Novaled PIN OLED top emission performance opens the way to large OLED displays” said Jan Blochwitz-Nimoth, Novaled CTO. “Novaled is actively working on green, blue and white top emission emitter systems as well. The Novaled PIN technology is currently being tested by different OLED manufacturing companies.”

About Novaled

Novaled GmbH is engaged in the research, development and commercialization of organic light-emitting diode (OLED) technologies. The company is a spin-off of the Institute of Applied Photo Physics (IAPP) at the Dresden University and of the Fraunhofer Society's Institute for Photonic Microsystems (IPMS). Main investors are Technostart (Germany) and Techfund (France). In operation since March 2003, the company has developed into a world-class technology provider. Novaled is the world leader in power efficiency. Novaled markets its advanced PIN OLED technology together with its proprietary materials to display makers and lighting companies preparing their entry into this promising new field. The company has a strong IP position.

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