

PRESS RELEASE

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Novalled announces a large area OLED device fulfilling international lighting specifications

The Novalled 15x15 cm OLED device reaches a power efficiency of 30 lm/W at an initial brightness of 1,000 cd/m². It shows a high quality white light with CIE color coordinates at illuminant A being in line with DoE energy star specifications. By using Novalled's proprietary 'litternity' technology a lifetime of 20,000 h can be reached.

Novalled developed a 15x15 cm white OLED with a thickness of less than 2 mm. The Novalled OLED stack allows for a natural and warm white light performing a very high color rendering index (CRI) of 90. The perception of this light is similar to sunlight or what is delivered by incandescent bulbs. The achieved color coordinates of (0.44, 0.41) are inside the US Department of Energy (DoE) quadrangles at Illuminant A and even meet the more restrictive 7step MacAdams Ellipsis around Illuminant A.

With this large area flat light element OLEDs will enable a pleasant illumination of the room together with revolutionary design. By reaching 30 lm/W on a 15x15 cm area Novalled achieved an intermediate step in line with the European project OLED100.

The specific electrode structure Novalled developed and now commercializes under the name 'litternity' increases the device lifetime. Using the litternity technology the 15x15 OLED device can reach a lifetime of 20,000 h. Litternity OLEDs maintain the appearance of a homogeneously lighted-up surface over the entire life span of the OLED. The litternity technology will allow the upscaling towards very large OLED panel sizes. Long lifetimes will be crucial to reduce maintenance cycles for commercial applications.

"Novalled is using its leadership on power efficiency and long lifetime to pave the way for large and thin lighting products which the market is expecting from OLED," says Gildas Sorin, CEO of Novalled AG. "The performance of this 15x15 OLED element perfectly illustrates the potential of both: Novalled PIN OLED[®] and litternity technology. It reflects as well our company is dealing with the market requests and various aspects of a lighting product going beyond the OLED stack and materials."

about OLEDs

OLEDs (organic light-emitting diode) are semiconductors made of thin organic material layers of only a few nanometers thickness. They emit light in a diffuse way to form an area light source. In a fast growing display market OLEDs are key part of a revolution: the dream of paper-thin, highly efficient displays with brilliant colors and great flexibility in design. OLEDs represent the future of a vast array of completely new lighting applications. By combining color with shape, organic LEDs will create a new way of decorating and personalizing personal surroundings with light. At the same time OLEDs offer the potential to become even more efficient than energy-saving bulbs.

about Novalled

Novalled AG is a world leading company in the OLED field specialized in high efficiency long lifetime OLED structures and an expert in synthetic and analytical chemistry. The company offers complete solutions to the organic electronic markets, commercializing its Novalled PIN OLED[®] technology along with its proprietary OLED materials. Novalled has developed long term partnerships with major OLED players worldwide. Based on more than 400 patents granted or pending, Novalled has a strong IP position in OLED technology, and was named No. 1 on a list of coming world market leaders by the German newspapers Handelsblatt and Wirtschaftswoche. Main investors are eCAPITAL, Crédit

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