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[\[Applied Physics\]\[OLED\] NTHU Invents the Globally First Sunlight-Style Color-Temperature Tunable Organic Light-Emitting Diode](#)

[Applied Physics][OLED] NTHU Invents the Globally First Sunlight-Style Color-Temperature Tunable Organic Light-Emitting Diode ([Chinese Version](#))

United Daily News (2009/07/16) National Tsing Hua University-Department of Materials Science and Engineering Professor and Chair Jwo-Huei JOU's research team has succeeded in invention of the first "Sunlight-Style Color-Temperature Tunable" Organic Light-Emitting Diode (OLED) which can emit light styles similar to the natural sunlight changes with regard to the light-color and color-temperature etc. such as in the sunrise, sunset, sunny days or cloudy days. The invention has been accepted by the international journal Applied Physics Letters and applied for the patent in Taiwan, Europe, the US, Japan and Korea.

The similar-to-natural-light OLED can emit various quasi-sunlight styles, tuning with the variation of voltage. With is light source resembling the natural sunlight, OLED is the best indoor illumination technology by now, better than the so-far popular LED. Although LED is more energy-saving, as a point light source, however, LED is focused and sharp, which is not welcome to the indoor illumination. On the contrary, OLED is flat light source and emits low-temperature and tender light, which meets the demand of environmental protection and suits indoor applications. Hopefully there may be an output value of 200 billion NT dollars by 2018, with 25% of market share in 15 to 20 years; by that time, 7 million tons of GHG (2.3% of the global GHG) may be eventually reduced.

Further Information:

[Economic Daily/udn.com 2009/07/16](#)

[Economic Daily/ud.com 2009/07/16](#)

[United Daily News/udn.com 2009/07/16](#)

[The Liberty Times E-paper 2009/07/16](#)

[China Times E-paper 2009/07/16](#)

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