

# **Perchlorate-doped PEDOT:PEG as an additional hole injection layer for quantum-dot light emitting diodes**

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## **Abstract**

A thin layers of perchlorate-doped poly(3,4-ethylenedioxythiophene)-block-poly(ethylene glycol) (PEDOT:PEG) was used as an additional hole injection layer for quantum-dot light emitting diodes (QLEDs). Perchlorate-doped PEDOT:PEG was inserted between transparent electrodes and poly(3,4-ethylenedioxythiophene):poly(styrene sulfonate) (PEDOT:PSS), and improved the interfacial contact. The electroluminescent characterizations indicate that increases of current density and luminance at the device with perchlorate-doped PEDOT:PEG. Therefore, double layer structure for the hole injection layer improved the device properties. We will present the

origin of the improvements as well as the device characteristics.

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