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### 特邀报告

利用金属纳米颗粒改善有机光电器件性能

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引用本文

摘要：有机发光和有机光伏器件为代表的有机光电器件在显示、照明、能源等领域有着广阔的应用前景。有机发光器件具有发光效率高、发光颜色丰富、响应速度快等优点,而有机光伏器件具有质轻、成本低、可实现柔性器件等优点。金属纳米颗粒的表面等离子体共振耦合效应可以提高有机发光器件的效率和有机光伏器件的光电转换效率,因而得到了研究人员的广泛关注。本文综述了金属纳米颗粒改善有机发光/光伏器件性能方面的研究进展,并对其今后的应用趋势进行了讨论。

关键词：有机光电器件 金属纳米颗粒 表面等离子体共振耦合

### 本刊中的类似文章

1. 激发光的表面等离子体共振增强效应导致的双光子荧光增强[J]. 2013,34(2): 240-244

## High-efficiency Organic Photoelectric Devices with Metal Nanoparticles

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Abstract: Organic photoelectric devices including organic light-emitting devices (OLEDs) and organic photovoltaic cells (OPVs), etc, have great potential applications in flat-panel display, solid-state lighting and energy. OLED is a promising technology for display due to its high efficiency, excellent color gamut and quick response. OPV has the advantages of light weight, low cost and flexibility. Surface plasmon resonance of metal nanoparticles could improve the efficiency of OLED and OPV. This paper reviewed the research progress of high-efficiency OLED/OPV with metal nanoparticles and discussed the prospective applications.

Keywords: organic photoelectric devices metal nanoparticles surface plasmon resonance

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