

Oral Presentation

## [OLED4]QD Material & Devices

Special Topics of Interest on Quantum Dot Technologies

Chair: Takeo Wakimoto (Merck Performance Materials)

Co-Chair: Toshiaki Ikuta (JNC Corp.)

Thu. Nov 28, 2019 9:00 AM - 10:35 AM Room 204 (2F)

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9:20 AM - 9:40 AM

## [OLED4-2(Invited)]Efficient Perovskite Light-Emitting Diodes Enabled by Synergetic Device Architecture

Yanqing Li<sup>1</sup>, Yang Shen<sup>1</sup>, \*Jianxin Tang<sup>1</sup> (1. Soochow University (China))

Keywords: Perovskite light-emitting diodes, CsPbBr<sub>3</sub>, light outcoupling, moth-eye nanostructures

In this work, we demonstrated a facile route was realized by combining bioinspired moth-eye nanostructures and half-ball lens to enhance light outcoupling. As a result, the maximum external quantum efficiency of green perovskite light-emitting diodes was improved to 28.2%, which represented a substantial step toward achieving practical applications of PeLEDs.