

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)

9:20 AM - 9:40 AM

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

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Keywords: Perovskite light-emitting diodes, CsPbBr₃, 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.