Material

New OLED Structure for High-Definition Display Panel

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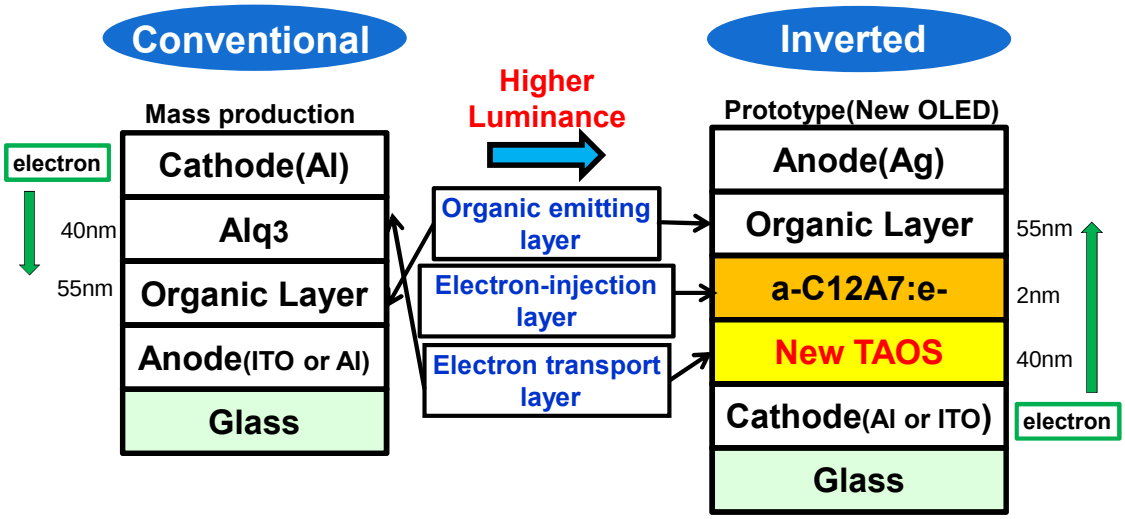
Succeeded in developing the higher luminance OLED than conventional OLED, by combining New TAOS and Electride.

1. OLED Structure

ITO : tin-doped indium oxide

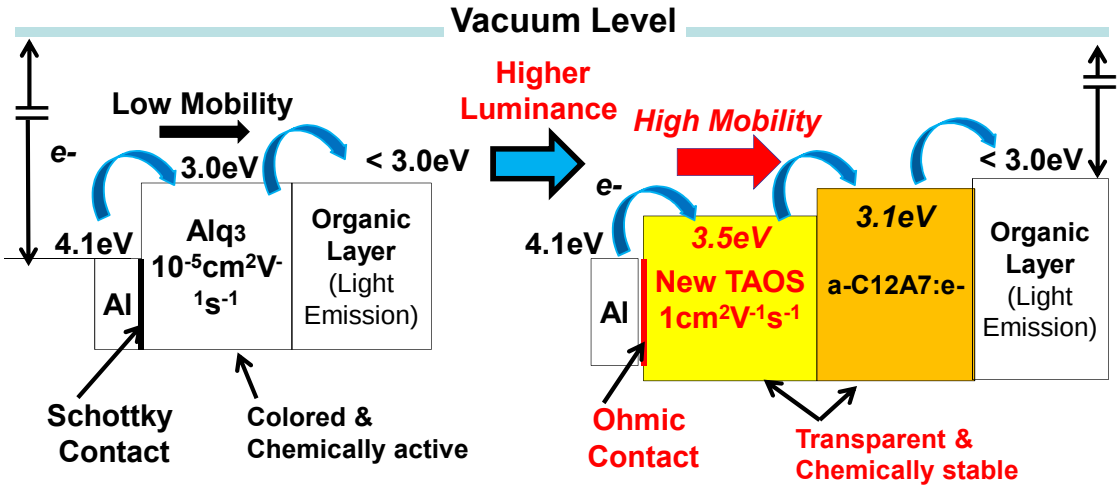
a-C12A7:e- : electride

TAOS : Transparent Amorphous Oxide Semiconductor



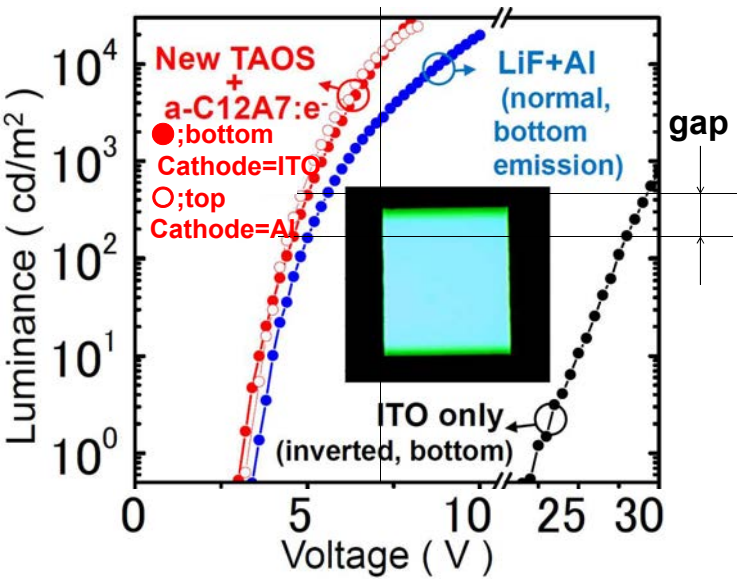
2. Energy Diagram

Smooth Electron transfer for high luminance



3. Luminance

Comparison with a high luminant conventional OLED (LiF+Al)



Material Stability

New OLED : Stable

LiF : Sealing is necessary to prevent deterioration

Application for New OLED

- Display panel
- Lighting equipment (high luminance and thin type)
  - -Embedded light in a mirror and a window
  - -Low profile interior lighting
  - -In the future
    New application using a flexible printed circuit

Patent Licensing Available

Patent Pending

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