

Supplementary Information

Laser highlighting on a flat panel display coated with a double-layered anti-reflection film containing an europium(III) complex

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1. The UV-stability of the Eu(III) complex [TDPP-Eu(III)] was investigated. Two polarizer films were attached in parallel to the rear side of the Eu(III) complex coated glass. UV irradiation was carried out from the rear side with a high pressure mercury lamp and PL intensity was measured every 3,000 mJ/cm² up to 9,000 mJ/cm². The emission intensity was slightly decreased after UV irradiation of 9,000 mJ/cm².

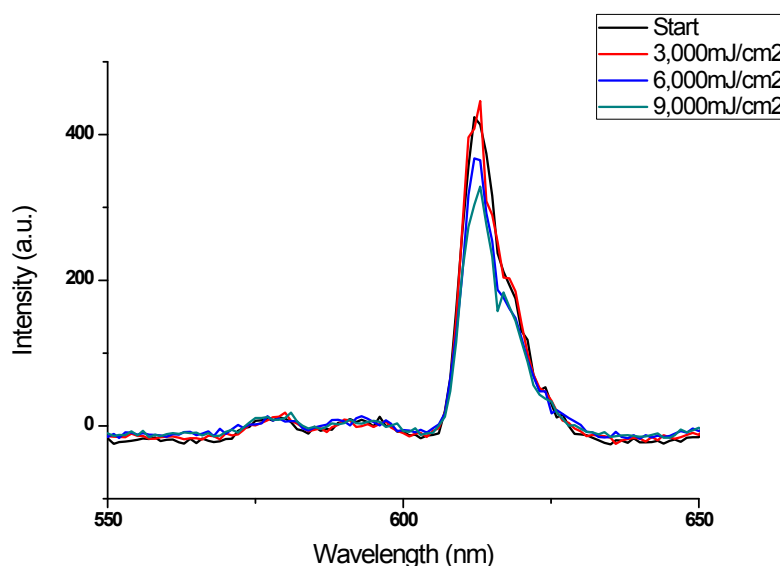


Fig. S1 The emission of the Eu(III) complex ($\lambda_{\text{exc}} = 405 \text{ nm}$) coated glass before and after UV irradiation.

2. An acrylate coated glass was prepared by spin coating a solution of Miramer M600 (0.24 g, 37.81 mM), and 1-hydroxycyclohexyl phenyl ketone (0.01 g, 4.46 mM) in THF (10.97 mL) at 300 rpm. The total solid contents was 2.5 wt%. The coated glass was UV irradiated by a high pressure mercury lamp up to 10,000 mJ/cm² and the yellow index change was measured by a spectrophotometer (Konica Minolta, CM-3600d). No significant color change was observed during the measurement.

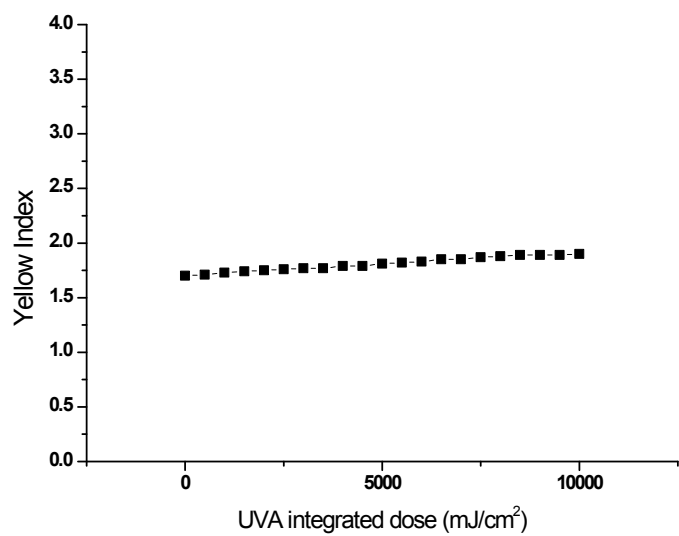


Fig. S2 Yellow index change by the irradiation of UVA (400 - 315 nm).