



# Luminescence properties of the TRIMEB inclusion compound of a europium tris- $\beta$ -diketonate

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## Abstract

The adduct TRIMEB:Eu(BTA)<sub>3</sub> · 2H<sub>2</sub>O was prepared and primarily characterized by photoluminescence (PL), and compared with free Eu(BTA)<sub>3</sub> · 2H<sub>2</sub>O. Both spectra show the Eu<sup>3+</sup> ion emission, with subtle differences between lines for the free and encapsulated complex. The temperature dependence and chemical stability were studied, taking into account (in the latter case) the PL changes with time. The use of this new material as the emissive layer in OLEDs was tested by its successful incorporation into a device, using a conductive polymer as host. The use of the TRIMEB adduct increased the stability of the device (as compared with the free Eu complex).

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