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# Recombination zone of blue thermally activated delayed fluorescent devices

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## Abstract

Recombination zone of blue thermally activated delayed fluorescent devices was identified by inserting a yellow sensitizer in the emitting layer made up of 1,3-bis(N-carbazolyl)benzene (mCP) and 4,6-di(9H-carbazol-9-yl)isophthalonitrile (DCzIPN) blue thermally activated delayed fluorescent emitter. Recombination of the mCP:DCzIPN emitting layer was mostly observed near electron transport layer at low doping concentration because of strong electron trapping effect by DCzIPN. Recombination zone of mCP:DczIPN emitting layer was broadened at high doping concentration by controlling electron density in the emitting layer.

Key words : electron trapping, recombination zone, sensitizer, delayed fluorescent emitter

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