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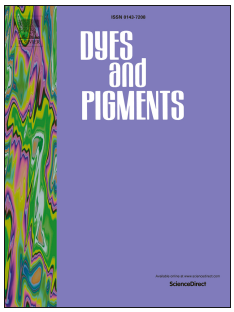

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Synthesis, Characterization and Fluorescence Imaging Property of BODIPY-DPP-based Dyad/Triad

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Abstract: Organic dyes with intensive near-infrared (NIR) absorption have shown practical application for fluorescence imaging. Based on Diketopyrrolopyrrole (DPP) and Boron-dipyrromethene (BODIPY), NIR dyad **BD** and triad **BDB** with two BODIPY units have been synthesized. There is a great steric hindrance existing between the DPP and BODIPY units; however, triad **BDB** shows a little more effective intramolecular charge transfer than dyad **BD**, as result in a stronger absorbance of the longest absorption band. According to theoretical calculations, the longest absorption maxima are contributed by the HOMO-LUMO transition for both **BD** and **BDB**. Both dyes were then fabricated into hydrophilic nanoparticles (NPs)