Supporting Information

Covalent modification of Black phosphorus with alkoxy group to improve the solubility and ambient stability

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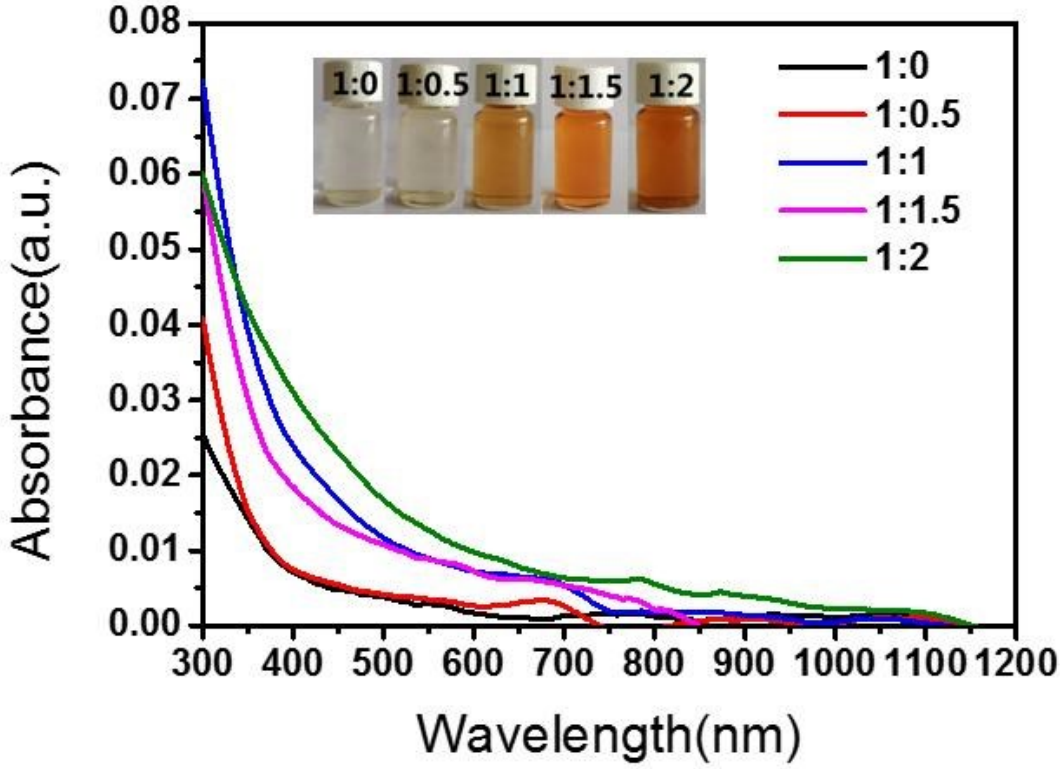

Figure S1. UV-Vis absorption spectra of the modified BP dispersion obtained with different molar ratios of BP and Sodium methoxide.

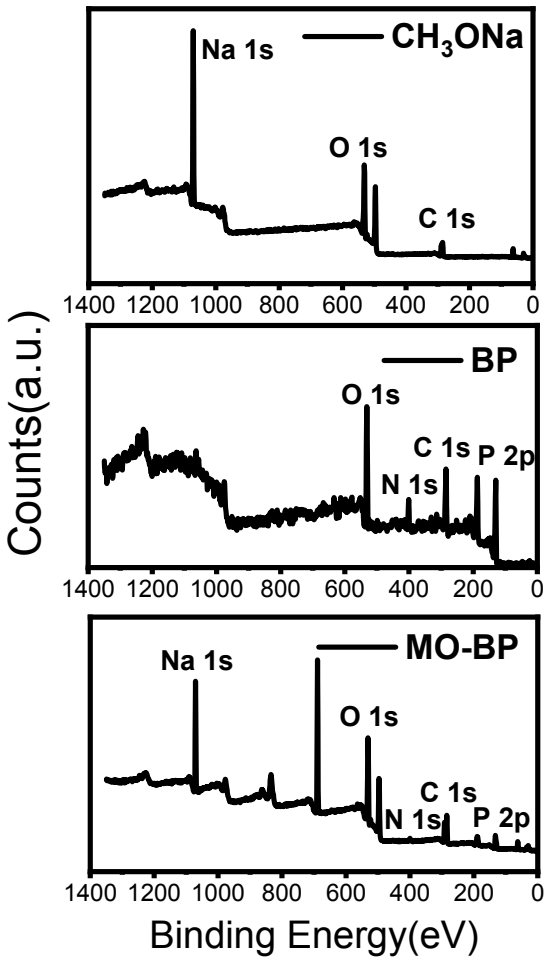

Figure S2. The XPS survey spectra of sodium methoxide (CH_3ONa), control BP and MO-BP.

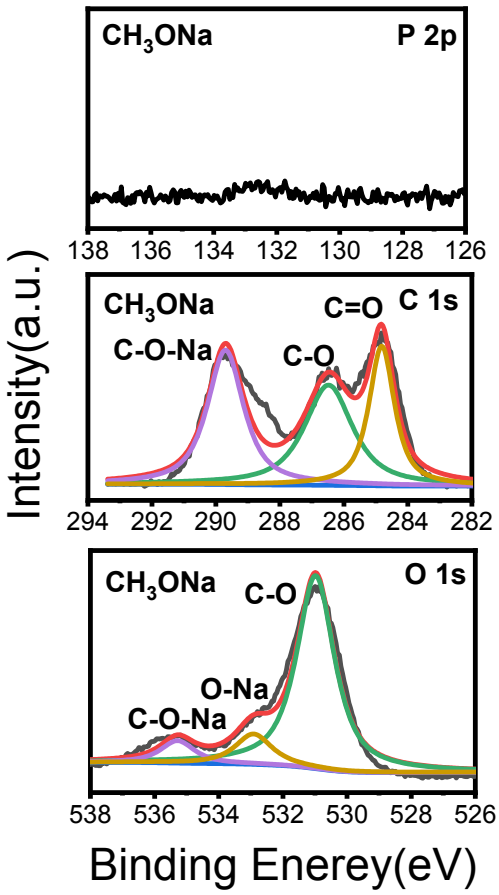

Figure S3. XPS wide scan spectra of the CH_3ONa: P 2p core-level, C 1s core-level, O 1s core-level.

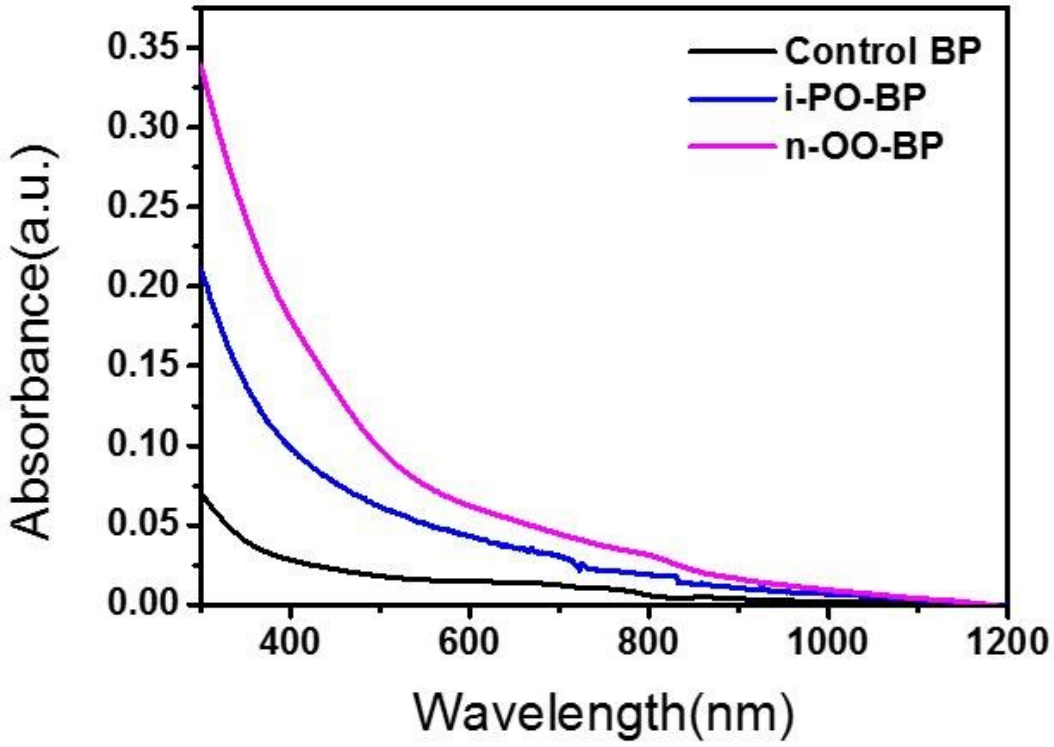

Figure S4. UV-Vis absorption spectra of the control BP and isopropoxy and n-octyloxy modified BP dispersion in DMF.