Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Light-Driven Methane Conversion: Unveiling Methanol using $TiO_2/TiOF_2$ Photocatalyst

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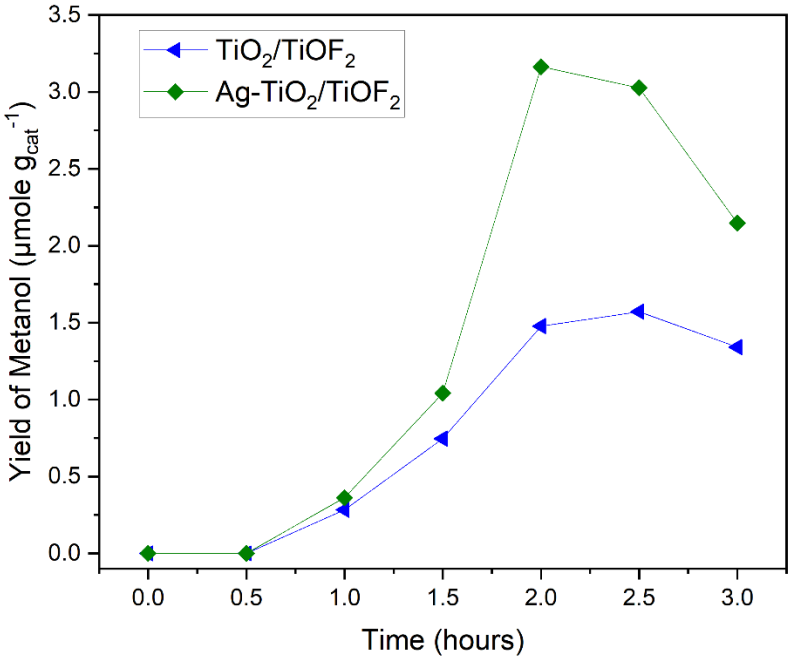

Figure S1. The yield of methanol comparison between $TiO_2/TiOF_2$ and Ag-$TiO_2/TiOF_2$ catalysts

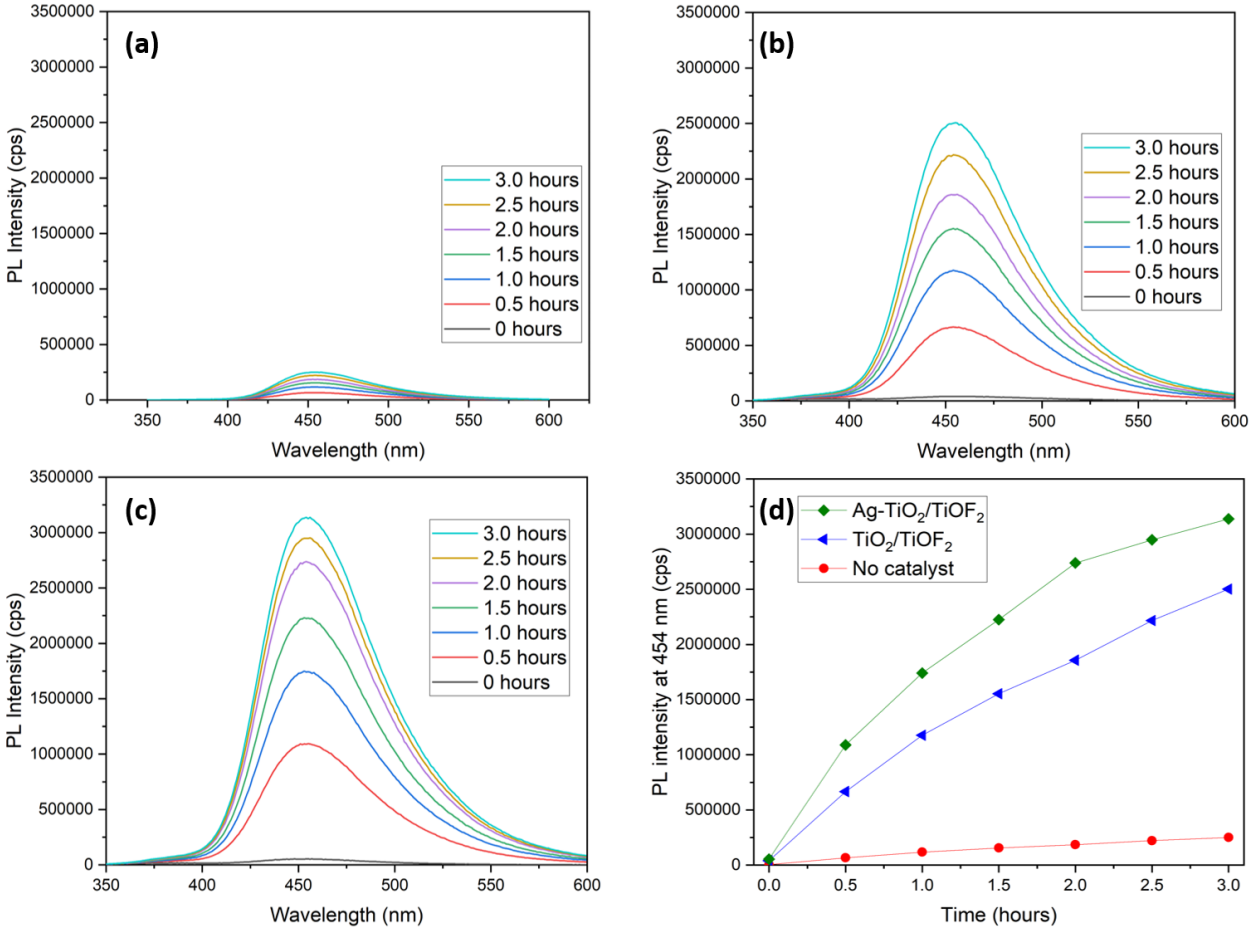

Figure S2. Photoluminescence spectra for detection of hydroxyl radicals using coumarin as a probe molecule (a) without catalyst (b) $TiO_2/TiOF_2$ (c) Ag-$TiO_2/TiOF_2$ (d) Photoluminescence signal intensity over time at λ_{max} = 454 nm.

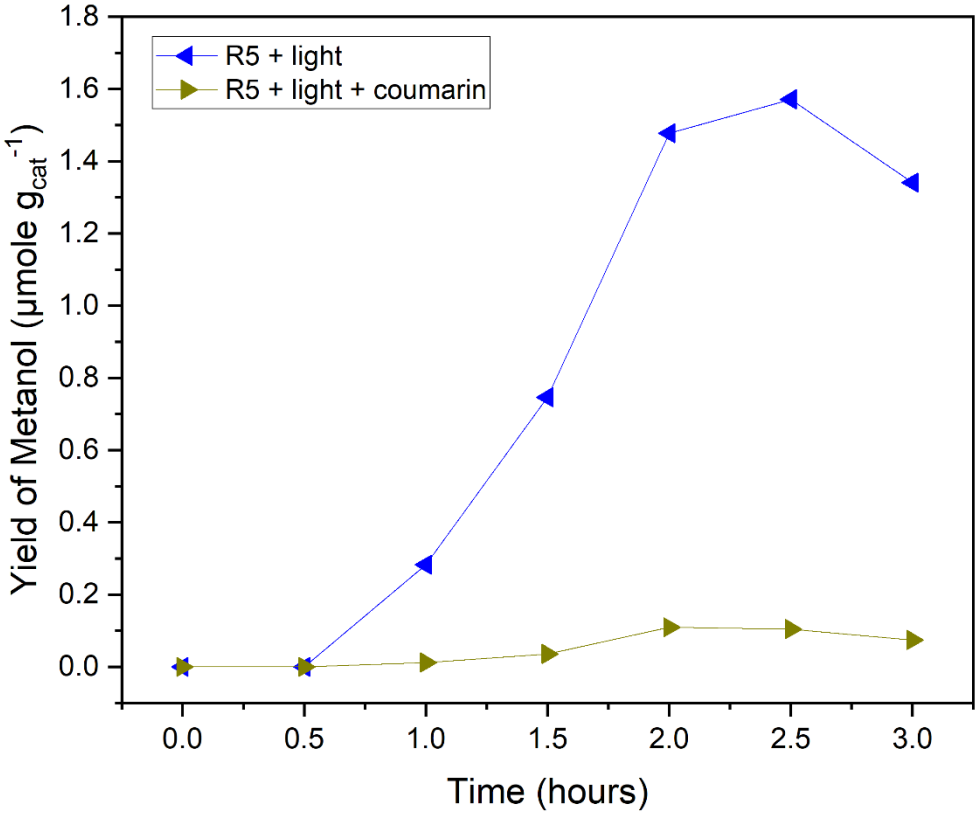

Figure S3. The yield of methanol comparison using $TiO_2/TiOF_2$ (R5) catalysts in the presence and the absence of coumarin as a hydroxyl radical scavenger