

Supporting Information

Photo-induced reduction of CO₂ using magnetically separable Ru-CoPc@TiO₂@SiO₂@Fe₃O₄ catalyst under visible light irradiation

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Fig. S1: Fe₃O₄@SiO₂@TiO₂ a) adsorption desorption isotherm and b) pore diameter

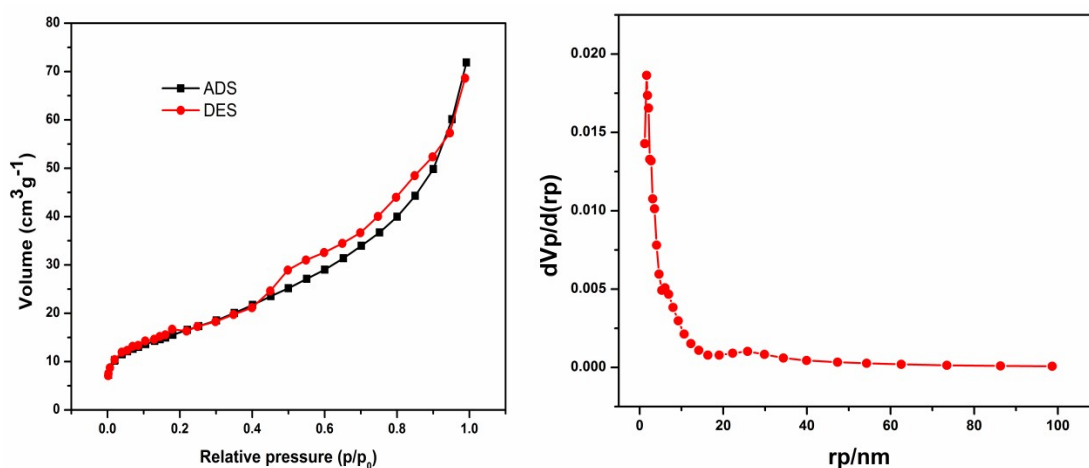


Fig. S2: Calibration curve for Quantification of product

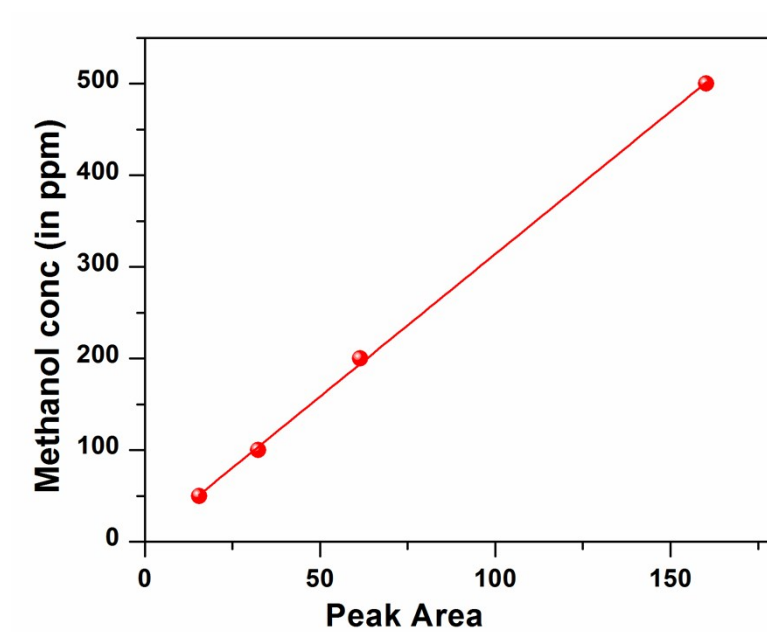


Fig. S3: ^1H NMR Spectra of $\text{Ru}(\text{bpy})_2\text{phene-NH}_2$ complex

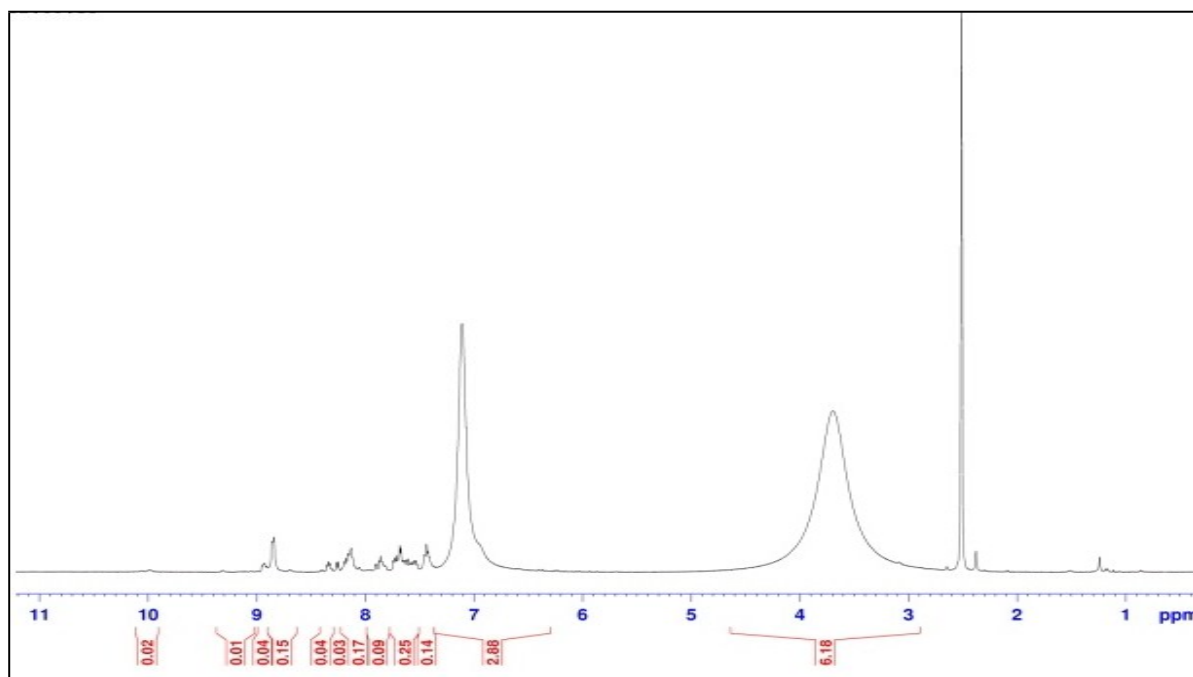


Fig S4: ^1H NMR ($\text{d}_6\text{-DMSO}$) of the reaction mixture obtained after 48 h of photoreduction of CO_2 using catalyst 6 under visible light irradiation.

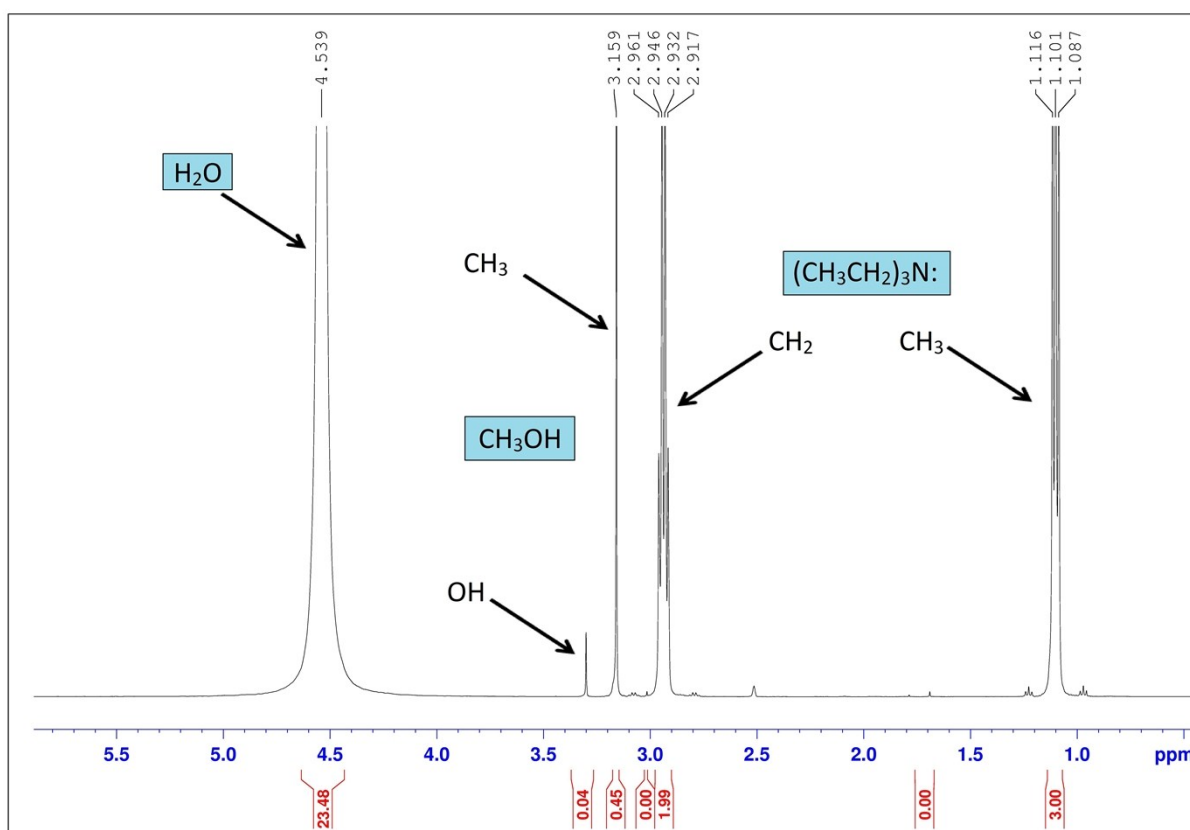


Fig S5: GC Chromatogram of product a) by using catalyst 6; b) blank reaction

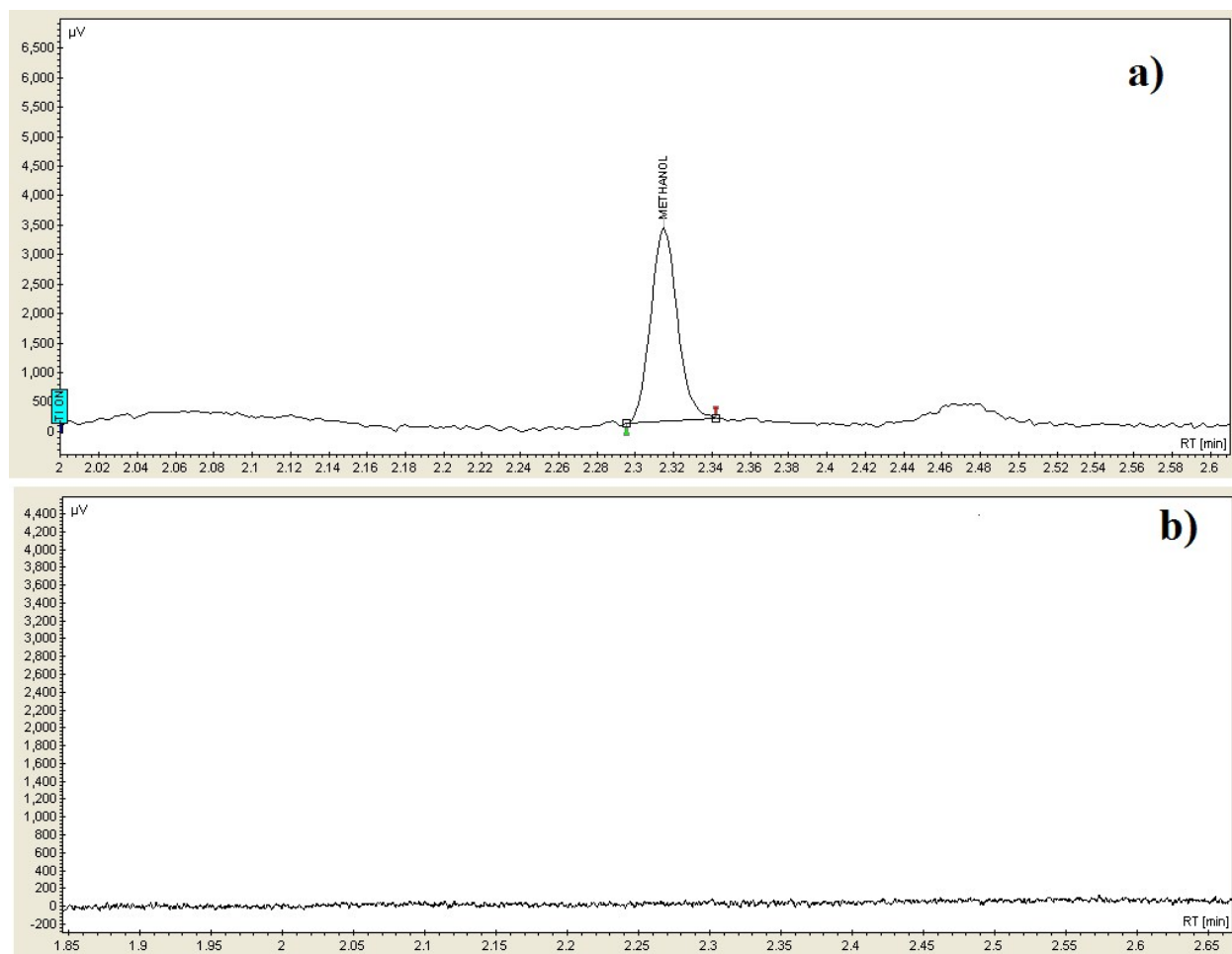


Fig S6: GC-Mass spectra of product a) using $^{12}\text{CO}_2$; b) using $^{13}\text{CO}_2$

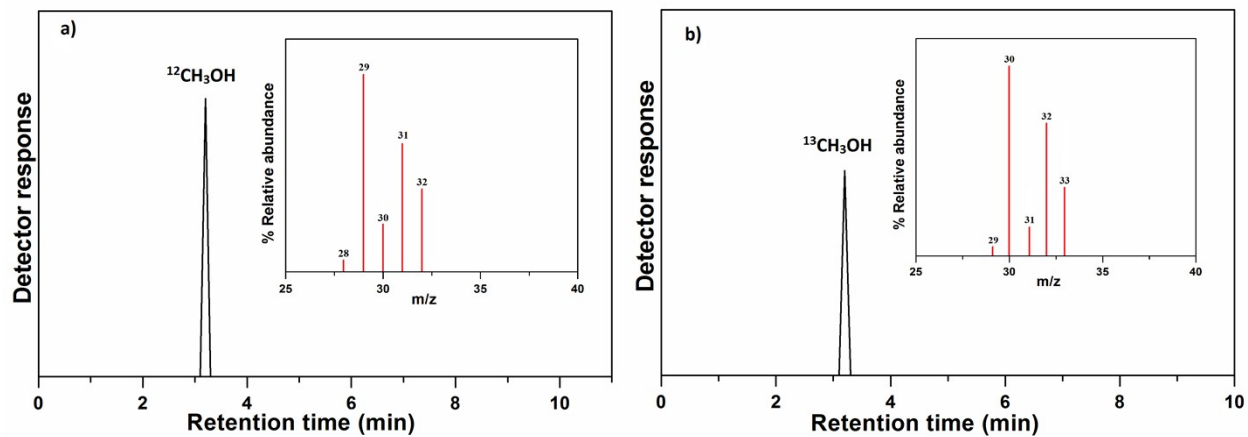


Fig S7: Methanol yield graph after re-purging CO₂ in reaction mixture using catalyst 6

