

Supporting Information

For

Molecular Linking Selectivity on Self-Assembled Metal-Semiconductor Nano-Hybrid Systems

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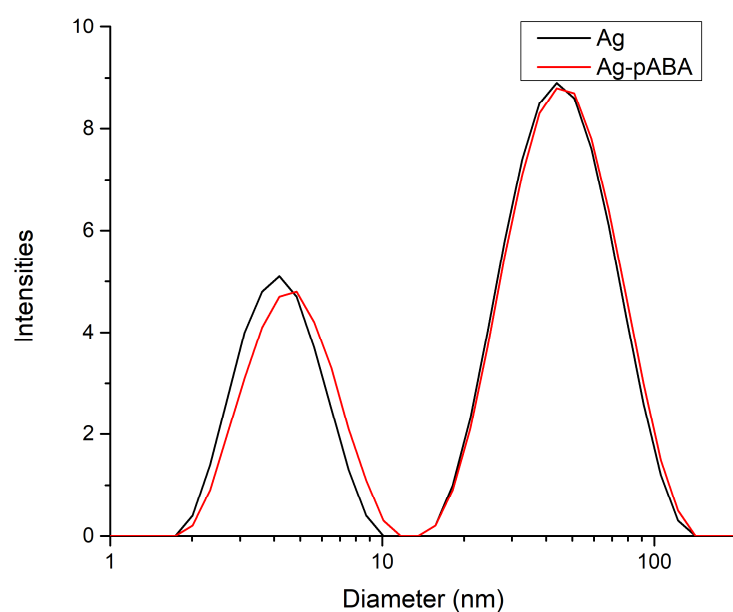


Figure S1. Dynamic light scattering (DLS) of Ag NPs (black trace), and Ag-pABA (red trace).

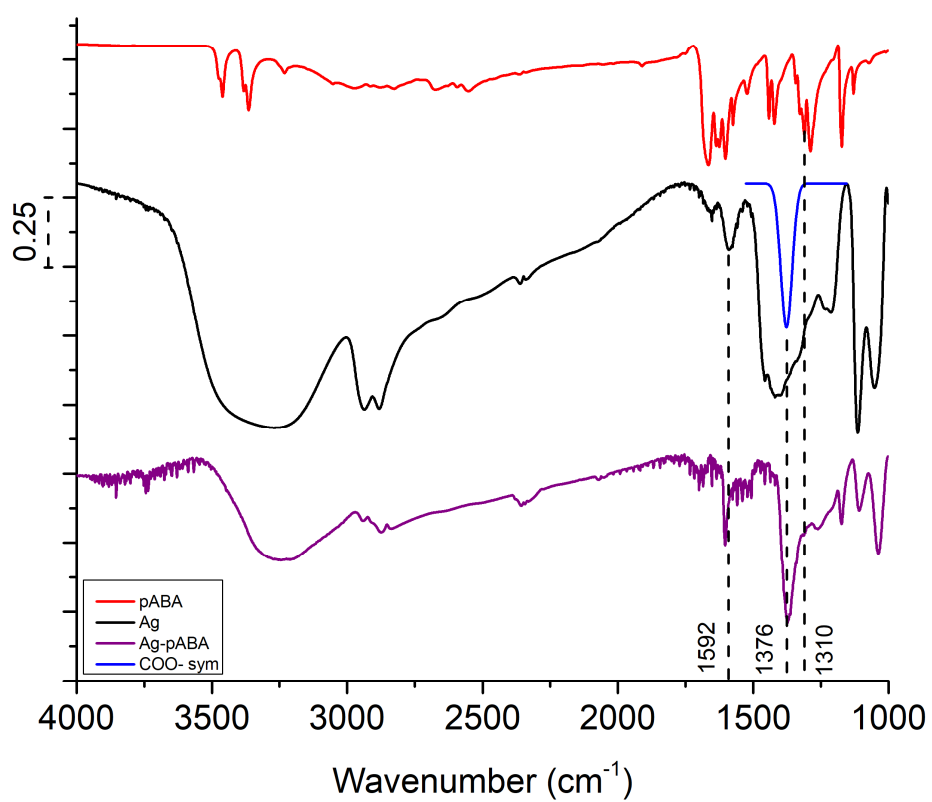


Figure S2. FTIR spectra of pABA (red trace), Ag NPs (black trace), and Ag-pABA (purple trace). The fit peak (blue trace) was obtained from deconvolution, showing COO⁻ symmetric stretching.

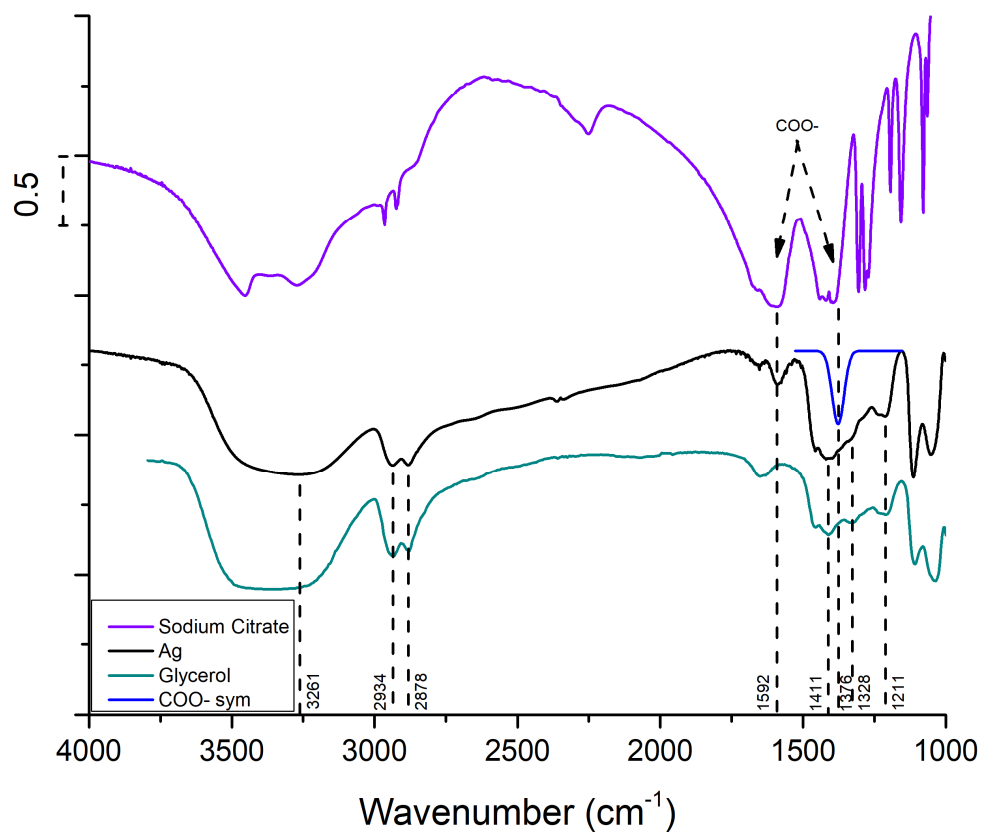


Figure S3. FTIR spectra of Ag NPs (black trace) along with sodium citrate (violet trace), and glycerol (cyan trace). Even after washing, the signal from glycerol is present in Ag NPs.

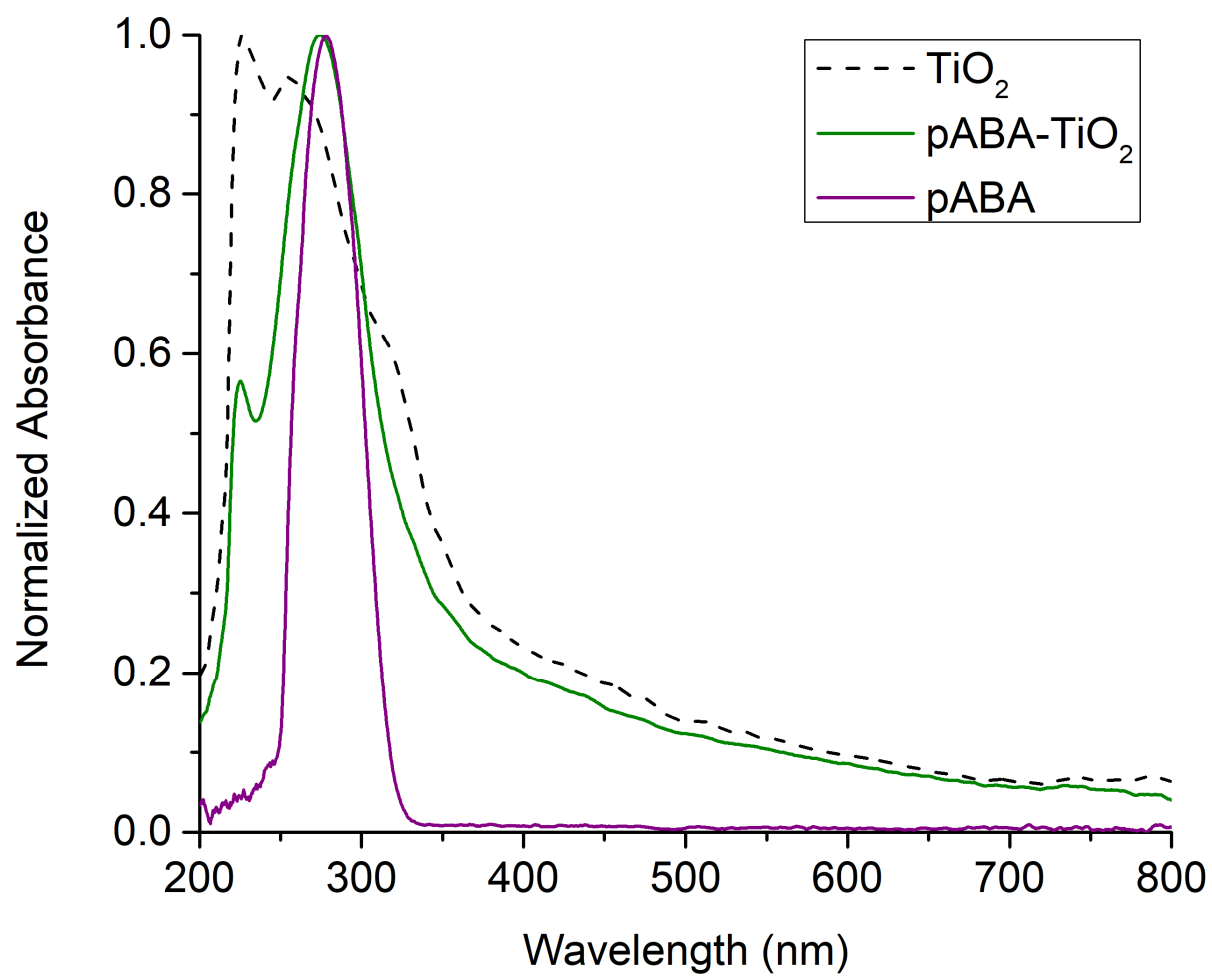


Figure S4. UV-Vis spectra of TiO_2 (black dashed trace), pABA (purple trace) and pABA on TiO_2 (green trace).

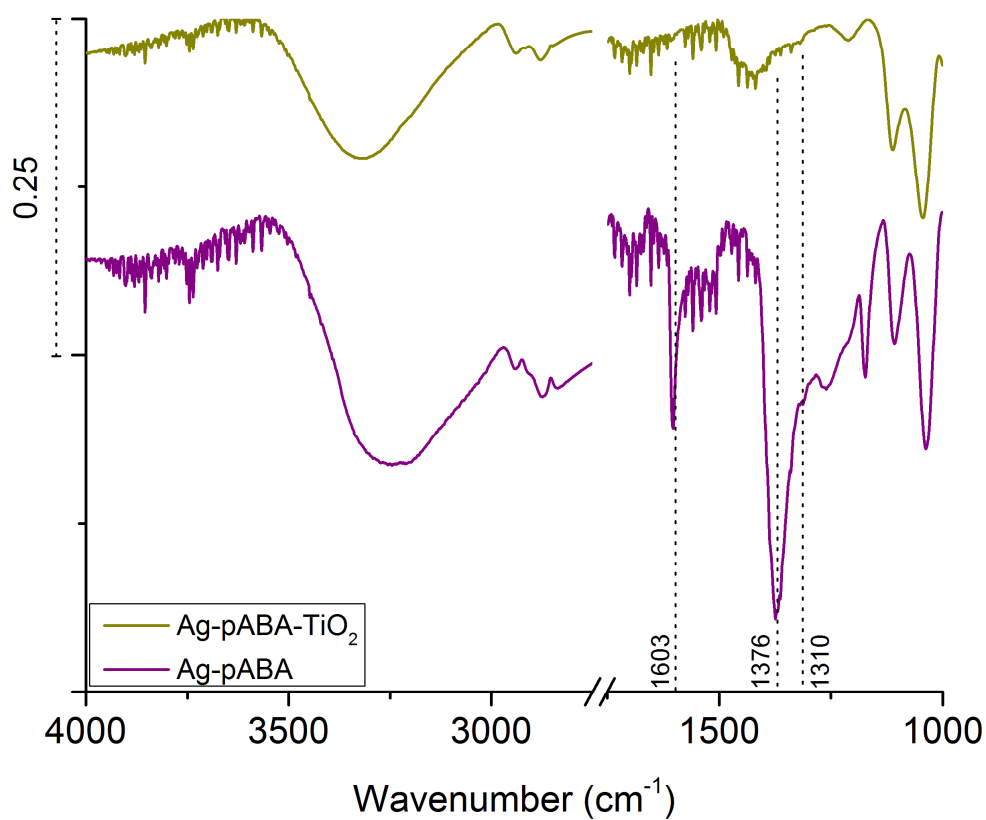


Figure S5. FTIR spectra of Ag-pABA-TiO₂ (dark yellow), and Ag-pABA (purple trace).

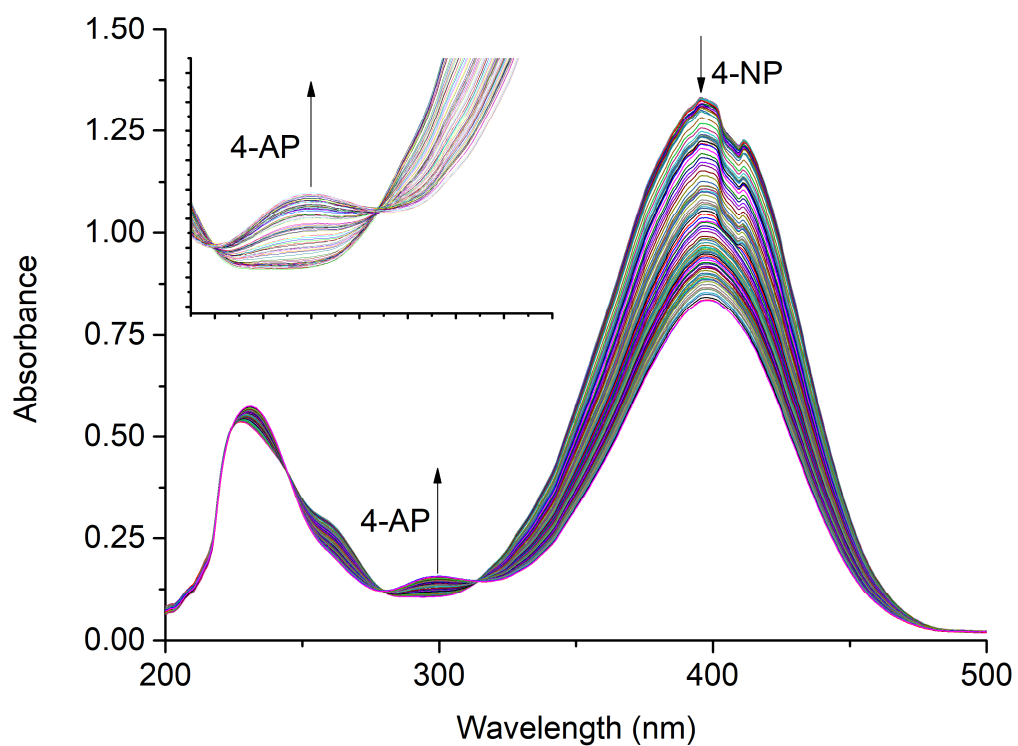


Figure S6. Temporal evolution of the UV-Vis spectra of the catalytic reaction using Ag-pABA-TiO₂ (10 µg/mL) and 405 nm laser excitation. Spectra recorded over 60 min.

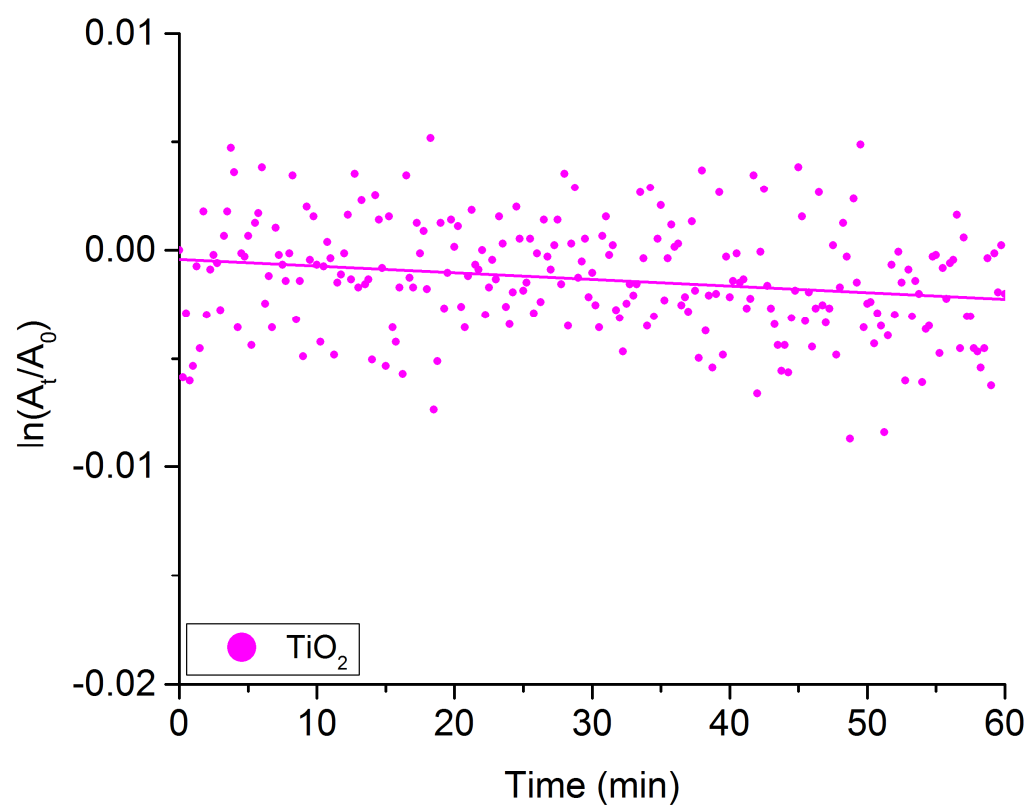


Figure S7. The disappearance rate of 4-NP using bare TiO_2 , with laser excitation.