

Electronic Supplementary Information

**Microwave-assisted Deposition of a Highly Active Cobalt Catalyst on
Mesoporous Silica for Photochemical CO₂ Reduction**

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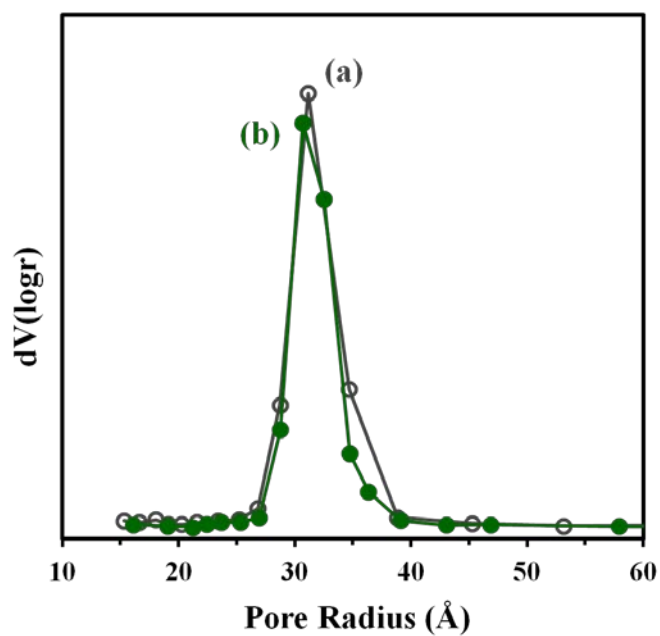


Figure S1. Pore size distribution of (a) bare SBA-15 and (b) $\text{Co}^{\text{III}}(\text{cyclam})\text{X}/\text{SBA}$.

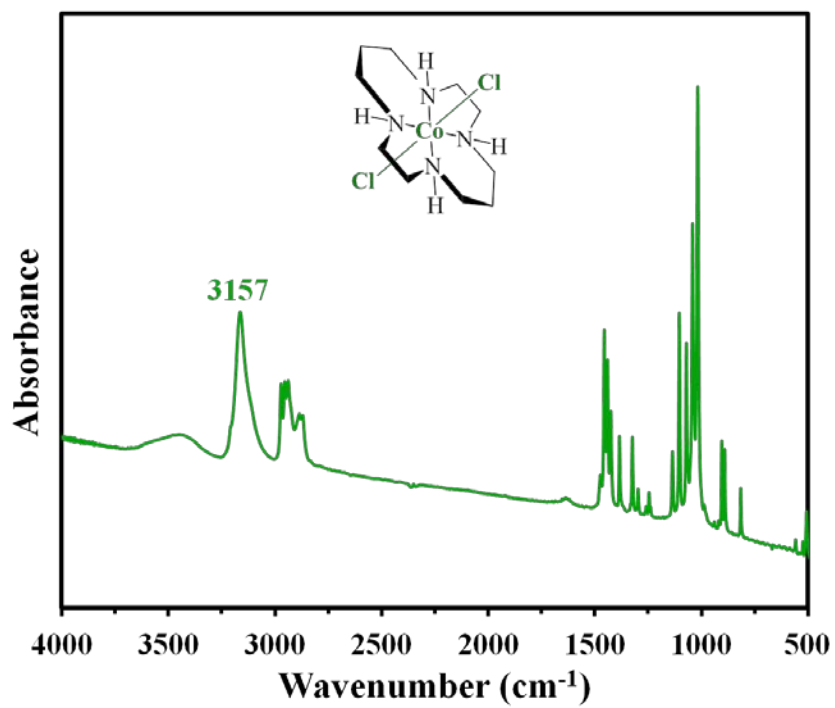


Figure S2. Transmission infrared spectrum of $[\text{Co}(\text{cyclam})\text{Cl}_2]\text{Cl}$ mixed with KBr.

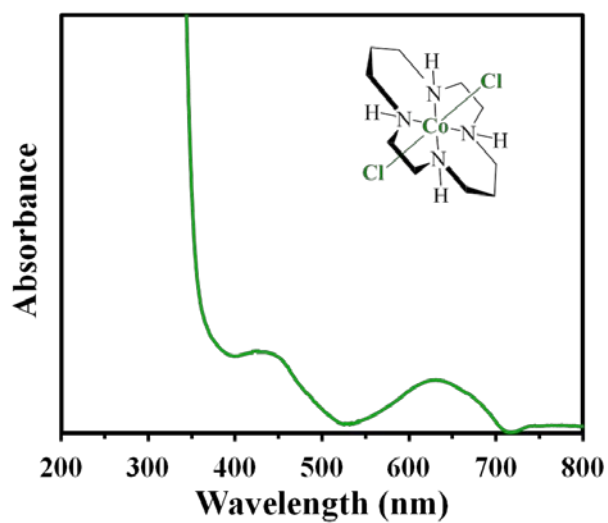


Figure S3. UV-visible spectrum of [Co(cyclam)Cl₂]Cl dissolved in H₂O.

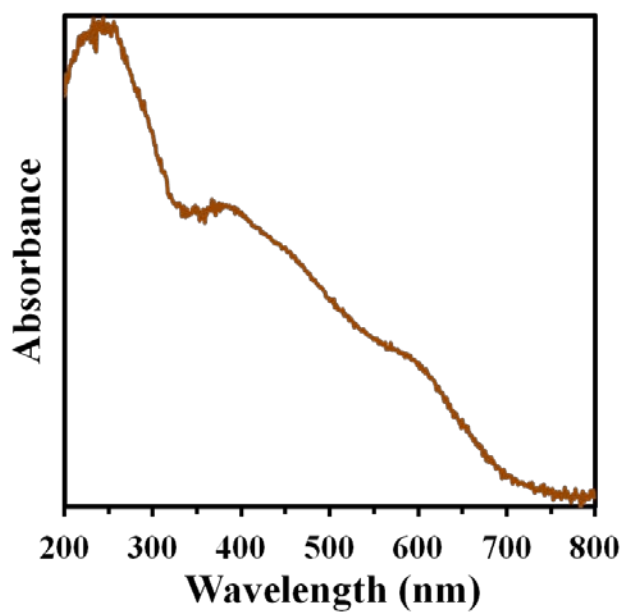


Figure S4. UV-visible spectrum of [Co(cyclam)Cl₂]Cl deposited on a non-porous SiO₂ via the microwave method.

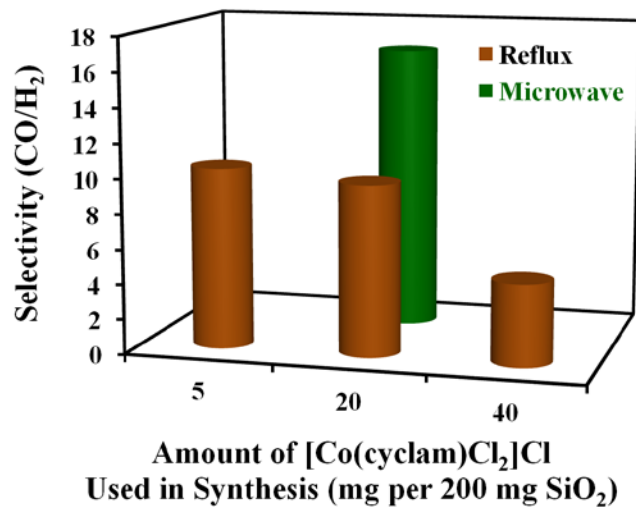


Figure S5. Selectivity in photochemical CO₂ reduction using Co^{III}(cyclam)X/SBA prepared by the microwave method (green) and the reflux method (brown). Concentration of *p*-terphenyl was 2.0 mM.

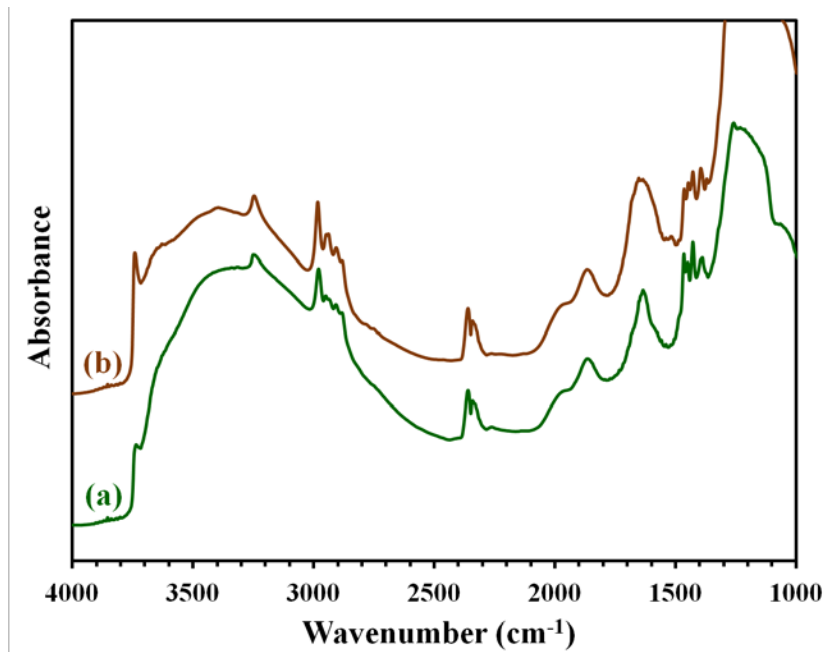


Figure S6. Infrared spectra of Co^{III}(cyclam)X/SBA before (a) and after (b) thermal treatment at 473 K under vacuum.