

Electronic Supplementary Information (ESI)

Bis-Tris Propane in DMSO as a Wet Scrubbing Agent: Carbamic Acid as a Sequestered CO₂ Species

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Table S1. CHN results of DAP-CO₂ adduct (C₄H₁₀N₂O₂) obtained using elemental analysis.

	C (Wt %)	H (Wt %)	N (Wt %)
Theoretical	40.67	8.53	23.71
Experimental	40.22	8.82	23.67

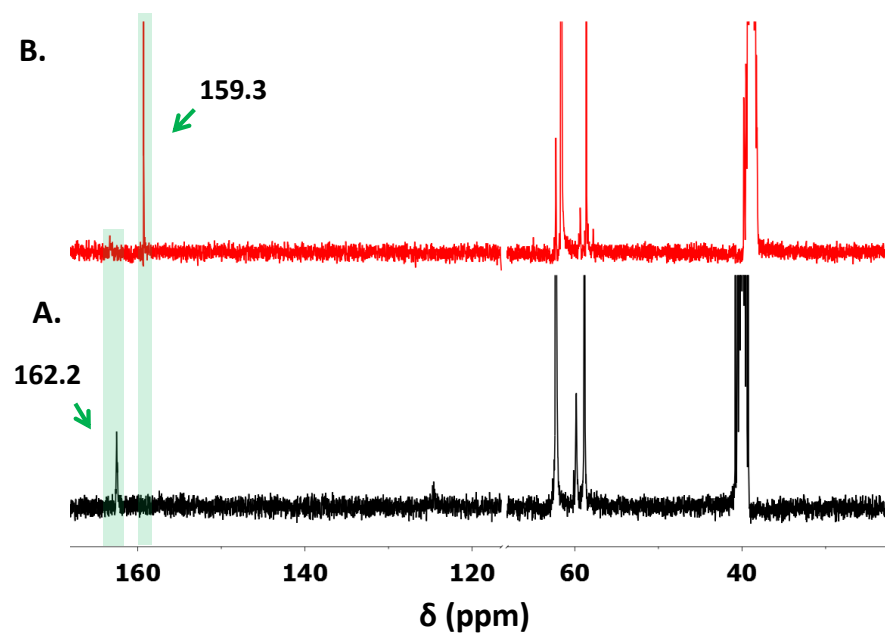


Figure S1. ^{13}C NMR spectra of: **A.** TRIS dissolved in $\text{DMSO-}d_6$ after bubbling CO_2 (**black**). **B.** TRIS- CO_2 adduct in 1:2 $\text{D}_2\text{O}:\text{DMSO-}d_6$ solution, bubbled with CO_2 and measured on next day (**red**).

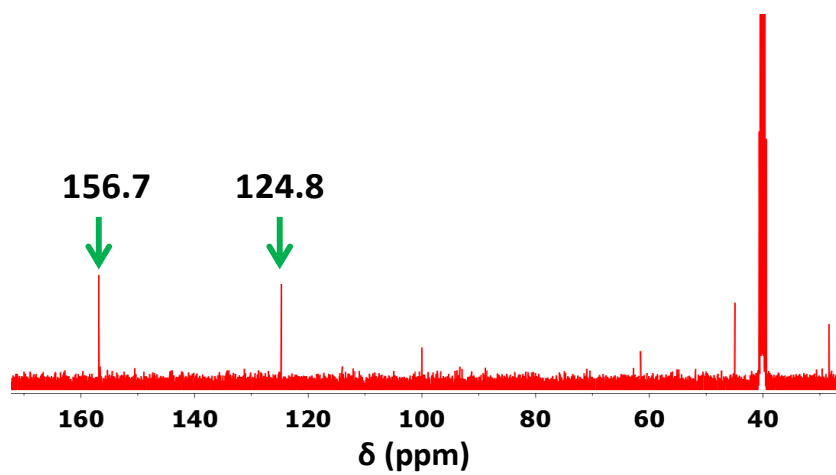


Figure S2. ^{13}C NMR spectrum of 1,12-diaminododecane dissolved in DMSO after bubbling CO_2 .

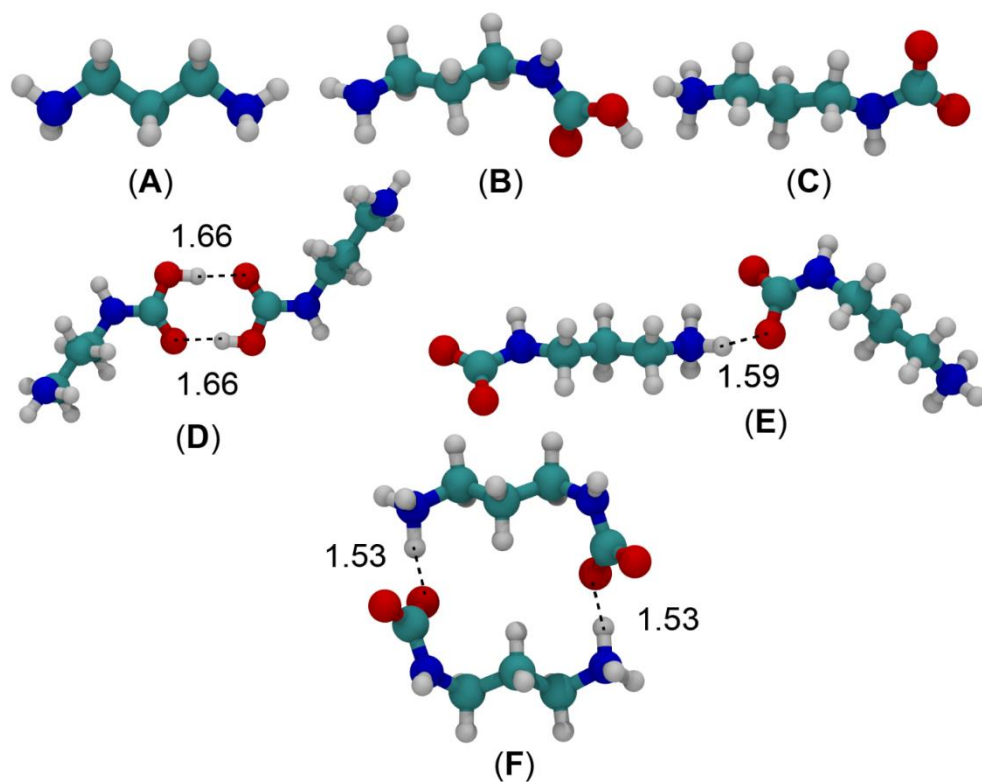


Figure S3. DFT-optimized structures in DMSO (B3LYP/6-31+G*) of DAP and its plausible CO₂ sequestered products. **A.** DAP. **B.** DAP-carbamic acid **C.** DAP-carbamate **D.** DAP-carbamic acid dimer **E.** & **F.** DAP-carbamate dimer.

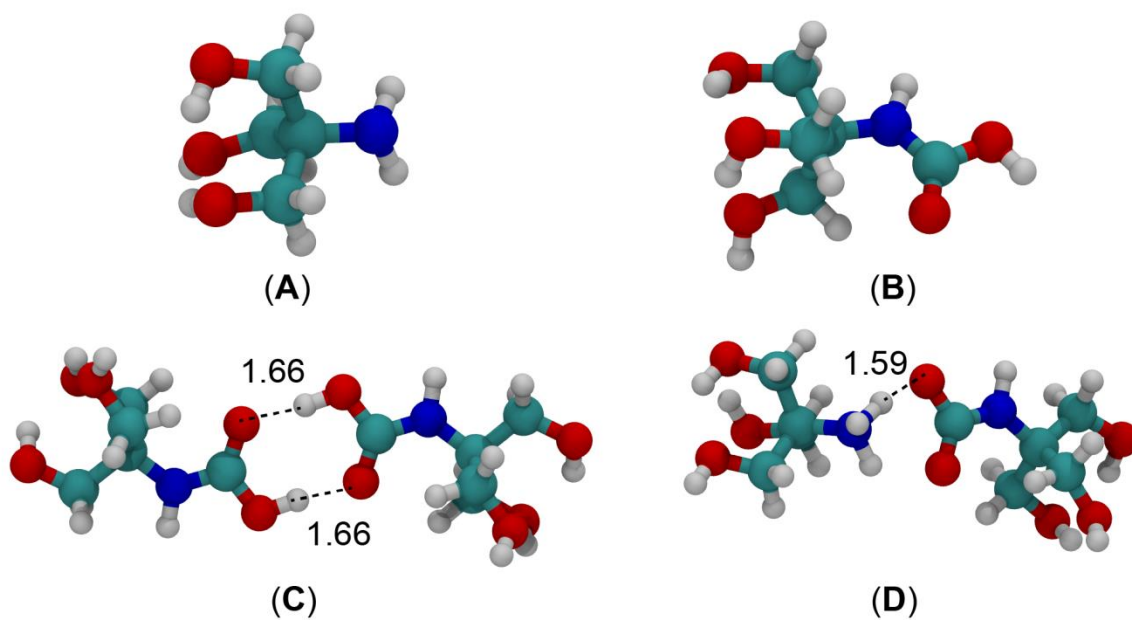


Figure S4. DFT-optimized structures in DMSO (B3LYP/6-31+G*) of TRIS and its plausible CO₂ sequestered products. **A.** TRIS. **B.** TRIS-carbamic acid. **C.** TRIS-carbamic acid dimer. **D.** TRIS-carbamate.