

High capacity CO₂ sorbents based on zinc-functionalized ionic liquid confined in morphologically diverse porous matrices

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Electronic Supplementary Information

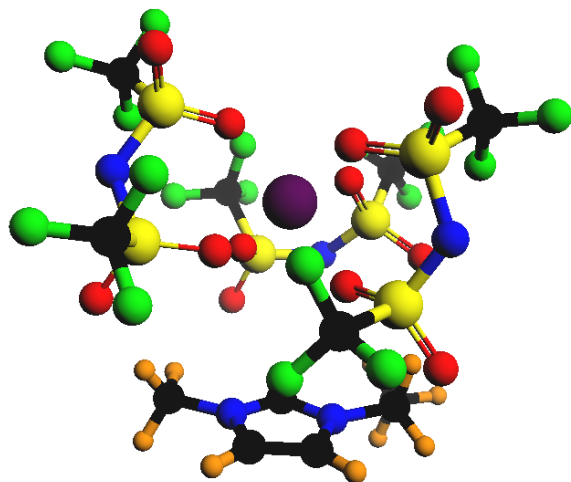


Fig. S1 DFT/B3LYP/6-31G optimized geometry of EZT3. H - orange, C - black, N - blue, O - red, F - green, S - yellow, Zn - purple.

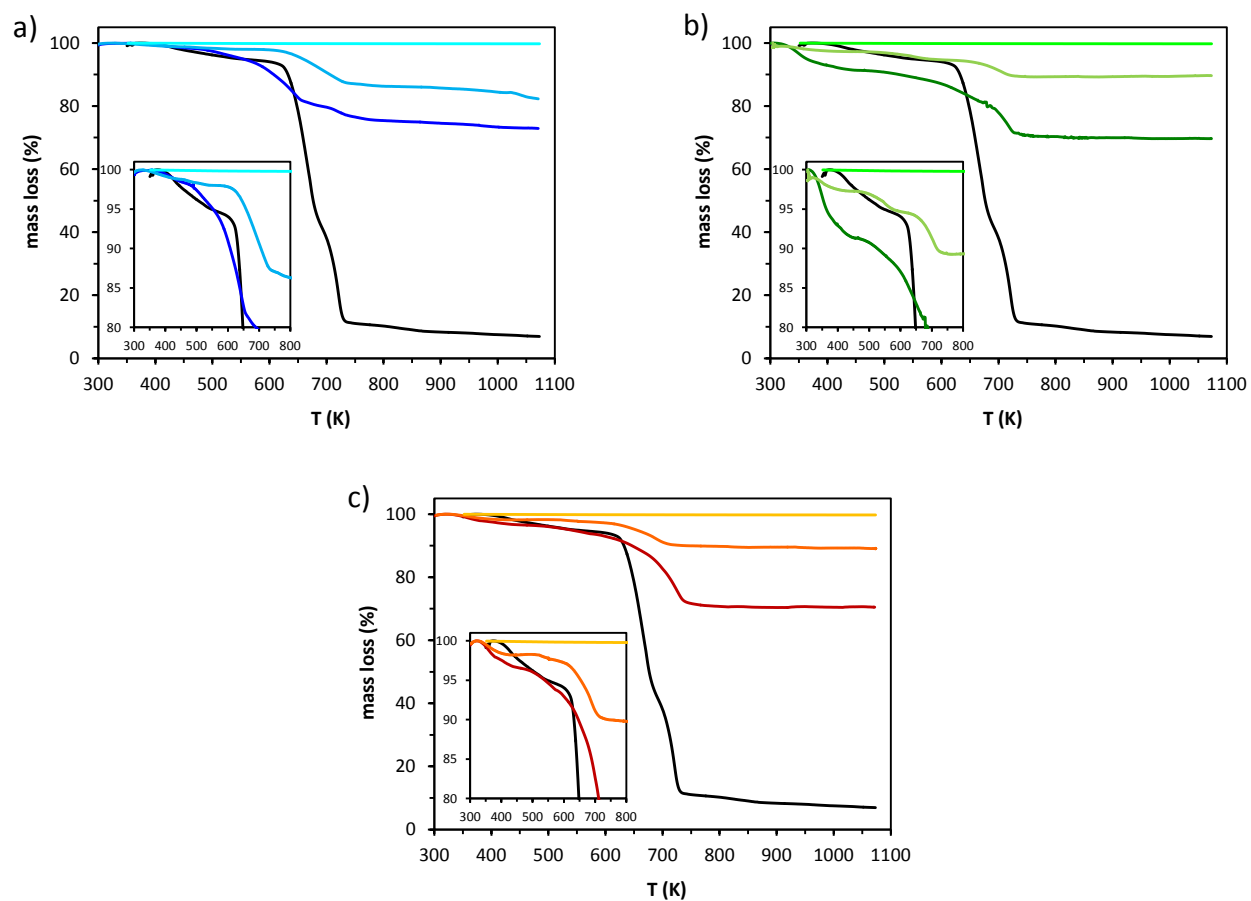


Fig. S2 TGA curves for a) S5-x, b) S12-x, and c) S60-x (x = EZT3 loading, wt%). Bulk EZT3 (black), S5-0 (cyan), S5-13 (light blue), S5-25 (blue), S12-0 (yellow green), S12-9 (green), S12-25 (dark green), S60-0 (yellow orange), S60-10 (orange), S60-26 (red).

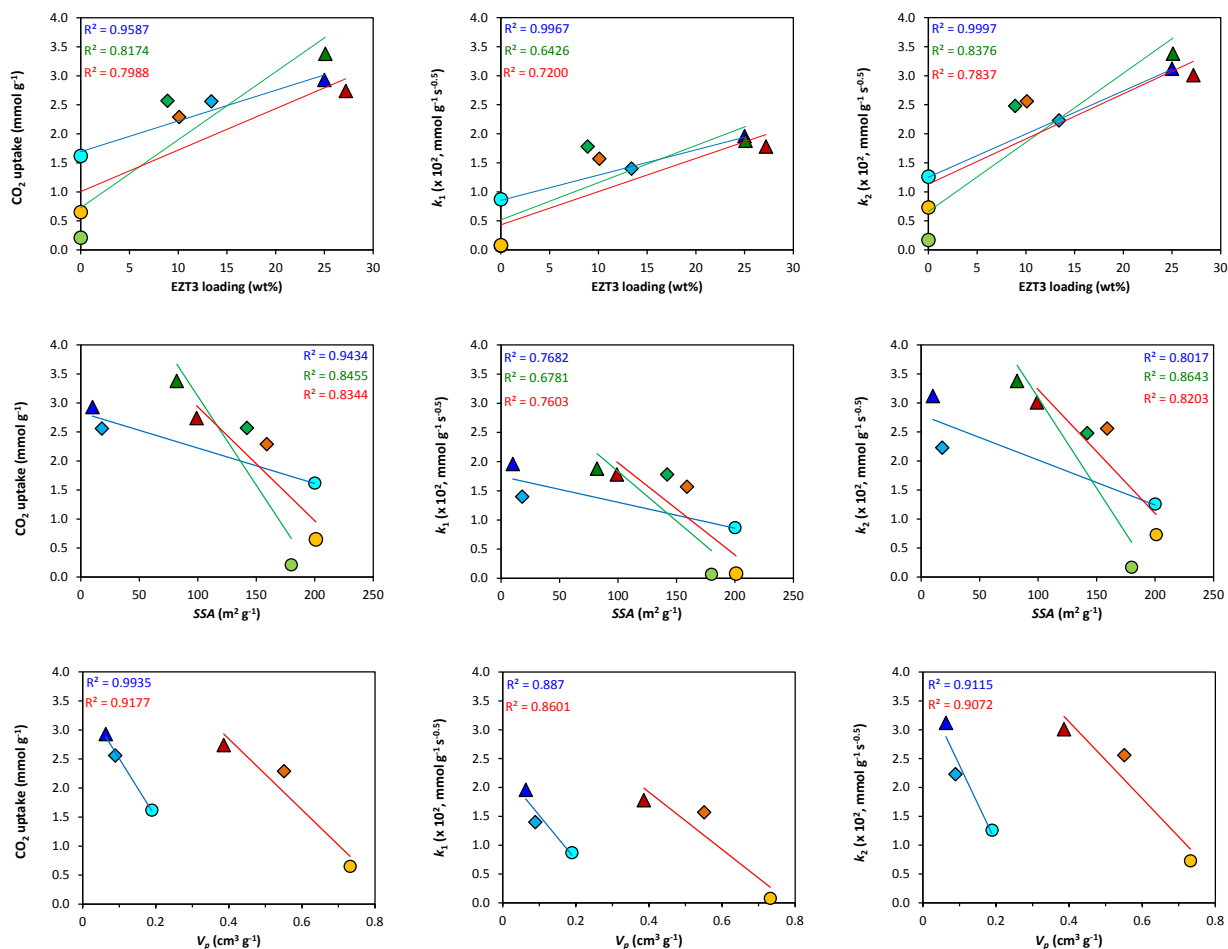


Fig. S3 Correlation plots of CO₂ uptake (left column), k_1 (middle column) and k_2 (right column) with EZT3 loading (top row), SSA (middle row) and V_p (bottom row). S5-0 (●, cyan), S5-13 (◆, light blue), S5-25 (▲, blue), S12-0 (●, yellow green), S12-9 (◆, green), S12-25 (▲, dark green), S60-0 (●, yellow orange), S60-10 (◆, orange), S60-26 (▲, red). Fitted lines indicate trends; S5-x (blue), S12-x (green) and S60-x (red).