

Supporting Information

Evaluating the Impact of Tailored Water Wettability on Performance of CO₂-Capture

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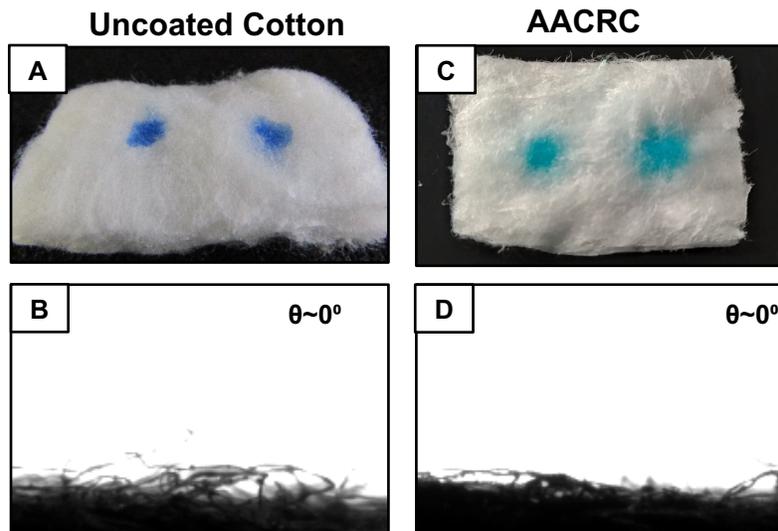


Figure S1. (A-D) Digital images (A, C) and contact angle images (B, D) of pristine cotton (A, B) and amine amplified

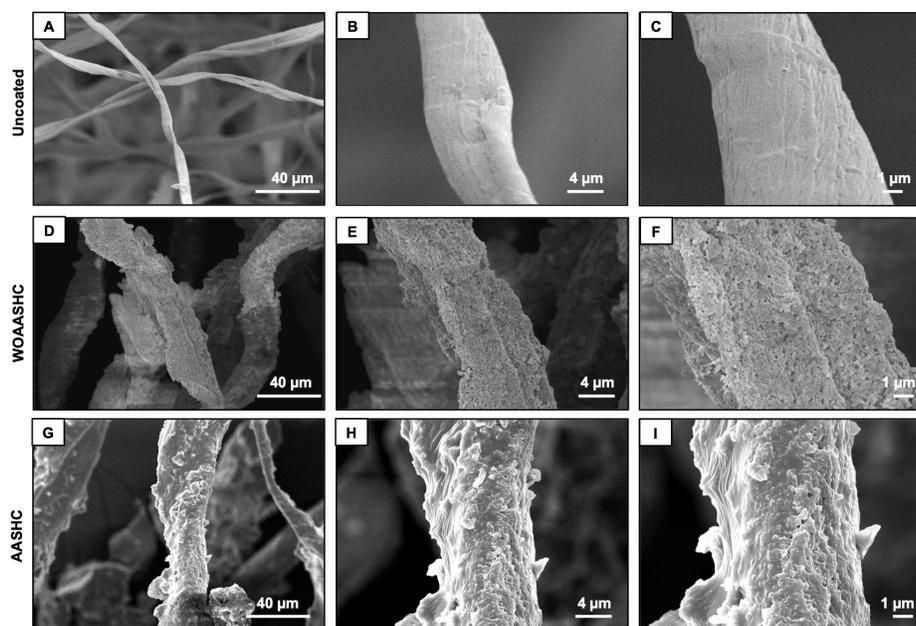


Figure S2. (A-I) FESEM images of uncoated cotton (A-C) and WOAASHC (D-F) and AASHC (G-I) at lower (A, D,G) and higher (B-C, E-F and H-I) magnifications.

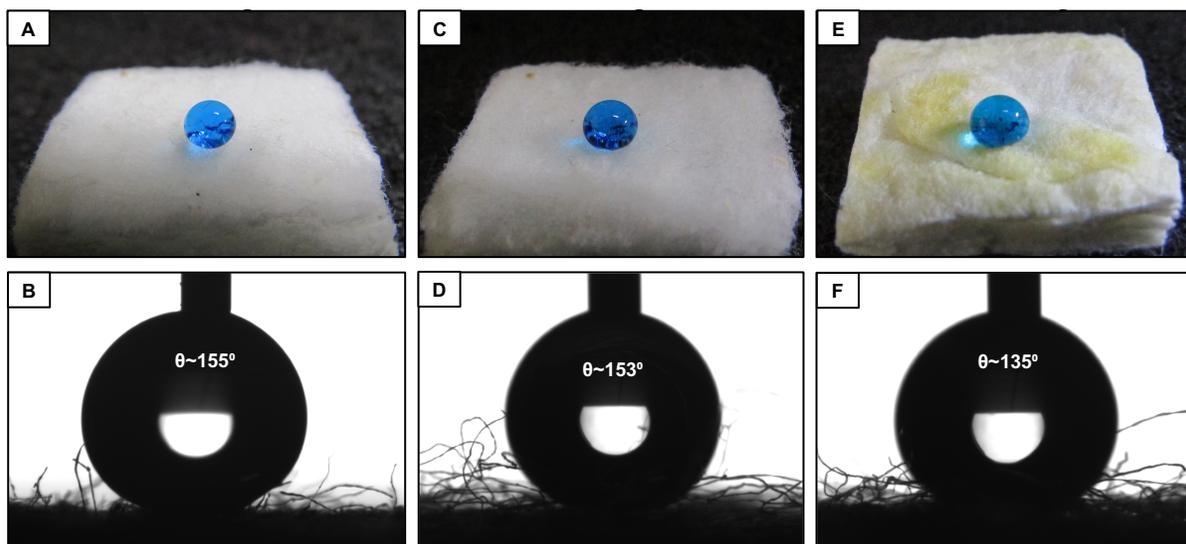


Figure S3. (A-F) Digital images (A, C, E) and contact angle images (B, D, F) of amine amplified reactive coating after ODA treatment with different concentrations of BPEI including 50 mg/ml (A, B), 125 mg/ml (C, D) and 250 mg/ml (E, F) respectively.

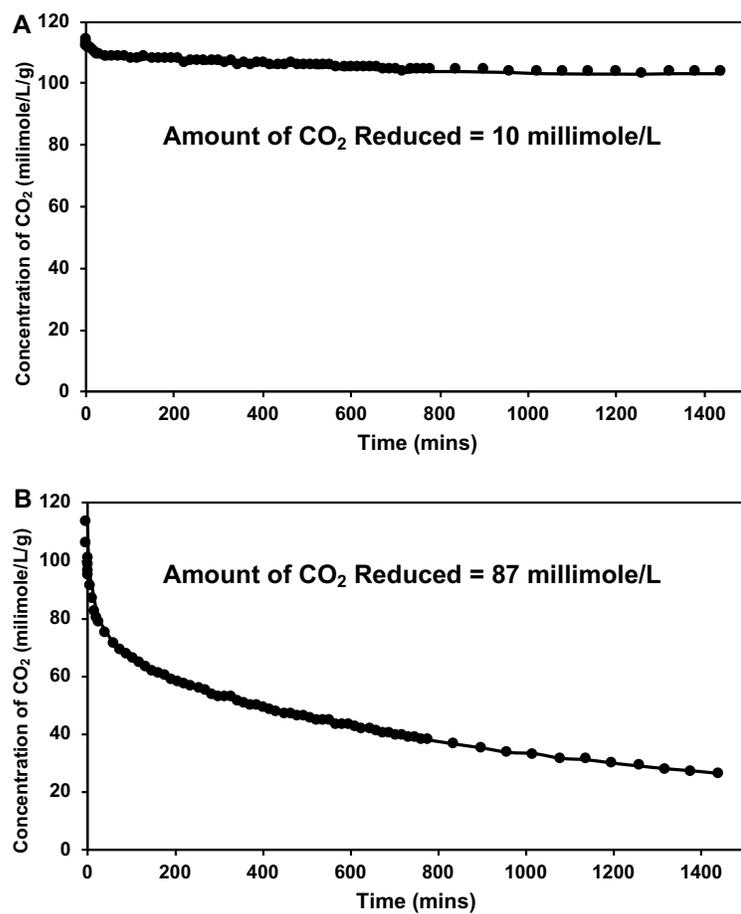


Figure S4. (A-B) Plots illustrating the decrease in concentration of CO₂ by WOAASHC (A) and AASHC (B) over 24 hours.

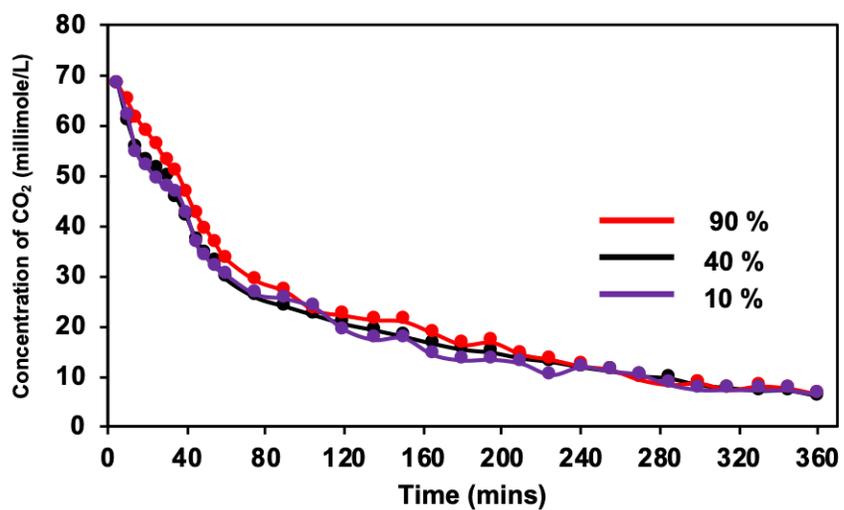


Figure S5. Plots illustrating the decrease in concentration of CO₂ by AASHC in different humid conditions including 10% (purple), 40% (black) and 90% (red).