

## Supplementary Materials

# Synthesis and CO<sub>2</sub> Capture of Porous Hydrogel Particles Consisting of Hyperbranched Poly(amidoamine)s

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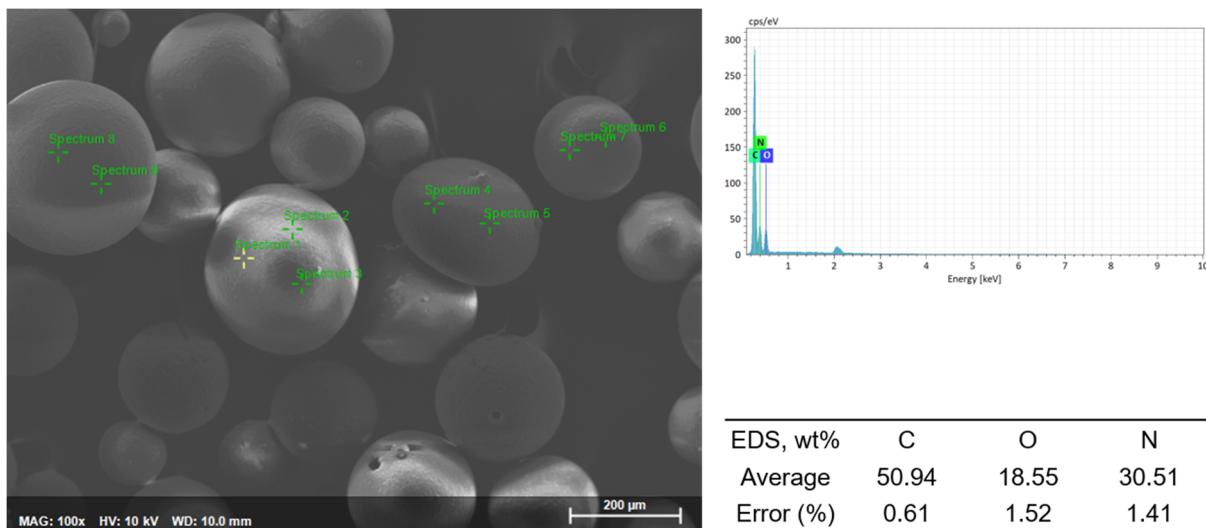
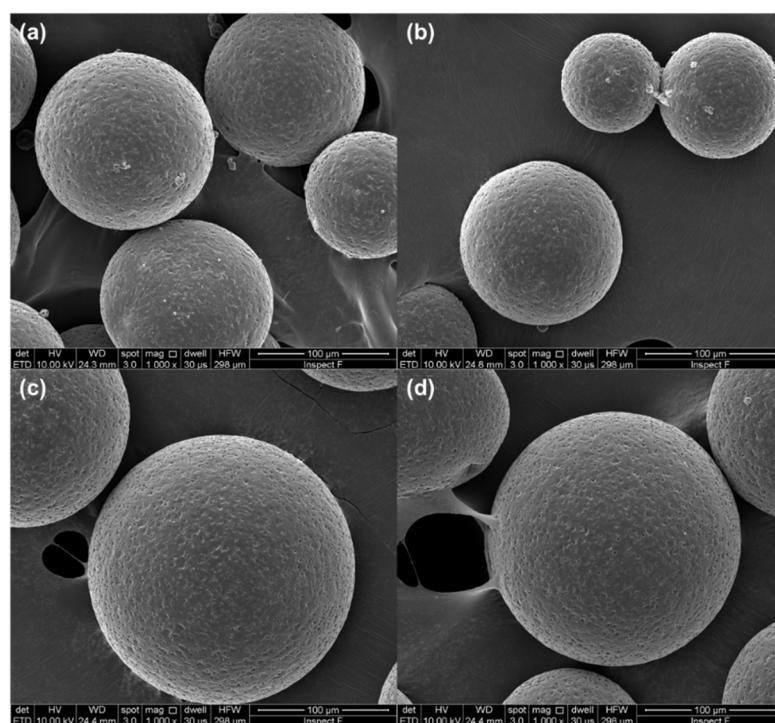
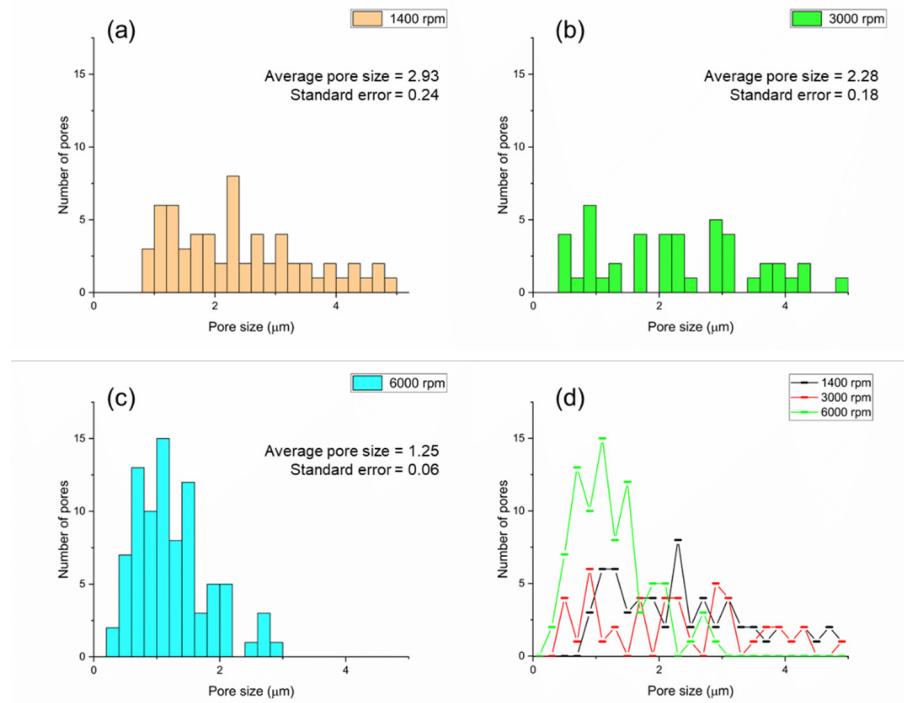


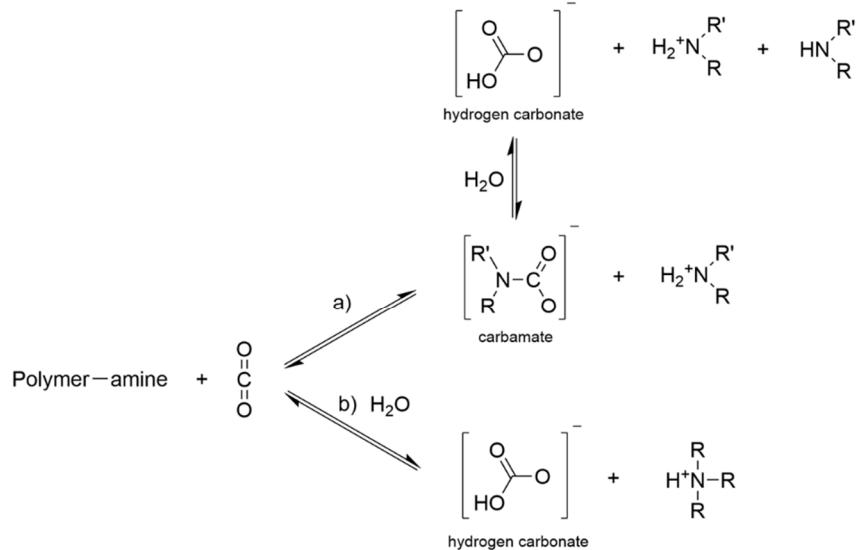
Figure S1. SEM images and EDS analysis of P-M<sub>1.4</sub>A<sub>1400</sub>T<sub>0.6</sub>.



**Figure S2.** SEM images of P-M<sub>1.5</sub>A<sub>3000</sub>, W/O agitation speed of 1400 rpm (**a,b**) and P-M<sub>1.5</sub>A<sub>3000</sub>, W/O agitation speed of 1000 rpm (**c,d**).



**Figure S3.** Pore size distribution of various O<sub>2</sub>/W agitation speeds, 1400 rpm (**a**), 3000 rpm (**b**), 6000 rpm (**c**), and merged graph (**d**), based on SEM images of Figure 2.



a) Carbamate and hydrogen carbonate formation of primary and secondary amine under CO<sub>2</sub> atmosphere  
 b) Hydrogen carbonate formation of tertiary amine in the presence of H<sub>2</sub>O

**Figure S4.** Reactions of amine and carbon dioxide [1–4].

## References

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