

Electronic Supplementary Information

**The synergistic effect of oxygen functional groups on
CO₂ adsorption by the glucose-potassium citrate
derived activated carbon**

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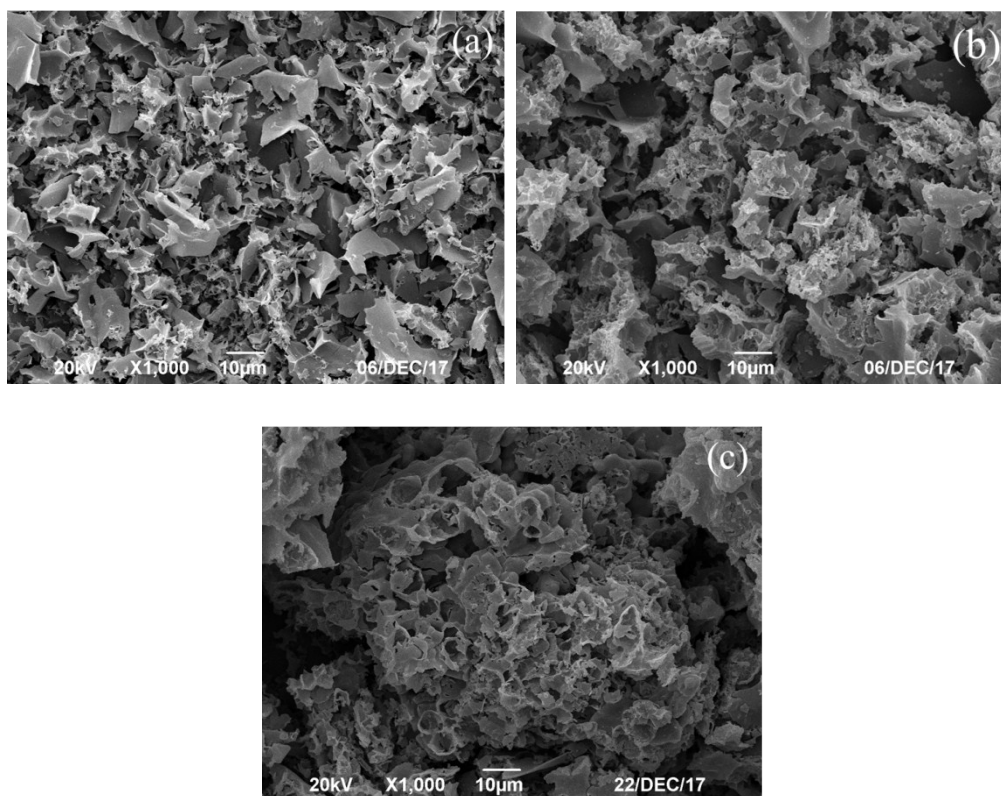


Figure S1 SEM images of: (a) KGC-750, (b) PGC-750, (c) PGC-900

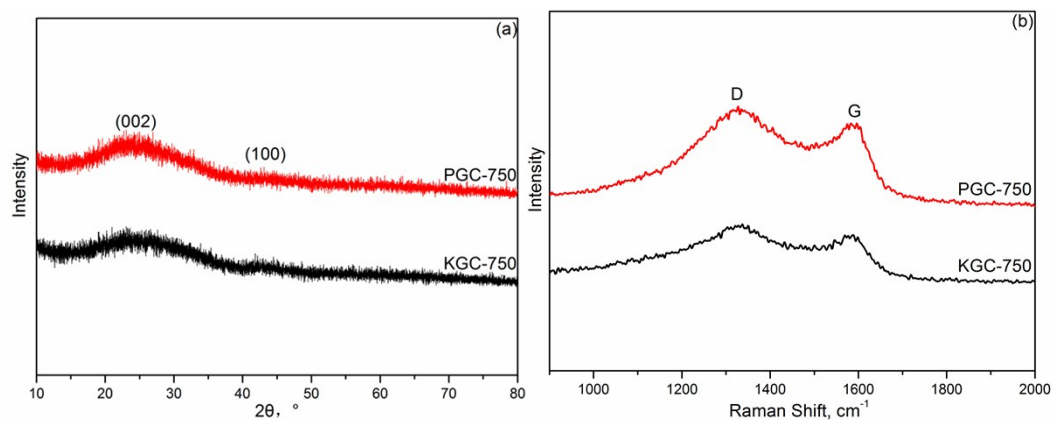


Figure S2 (a) XRD patterns and (b) Raman spectra of KGC-750 and PGC-750

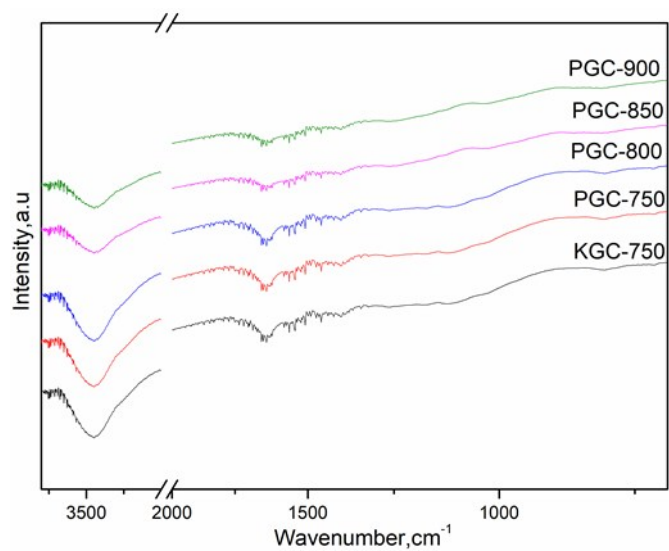


Figure S3 FTIR spectra of as-prepared activated carbons

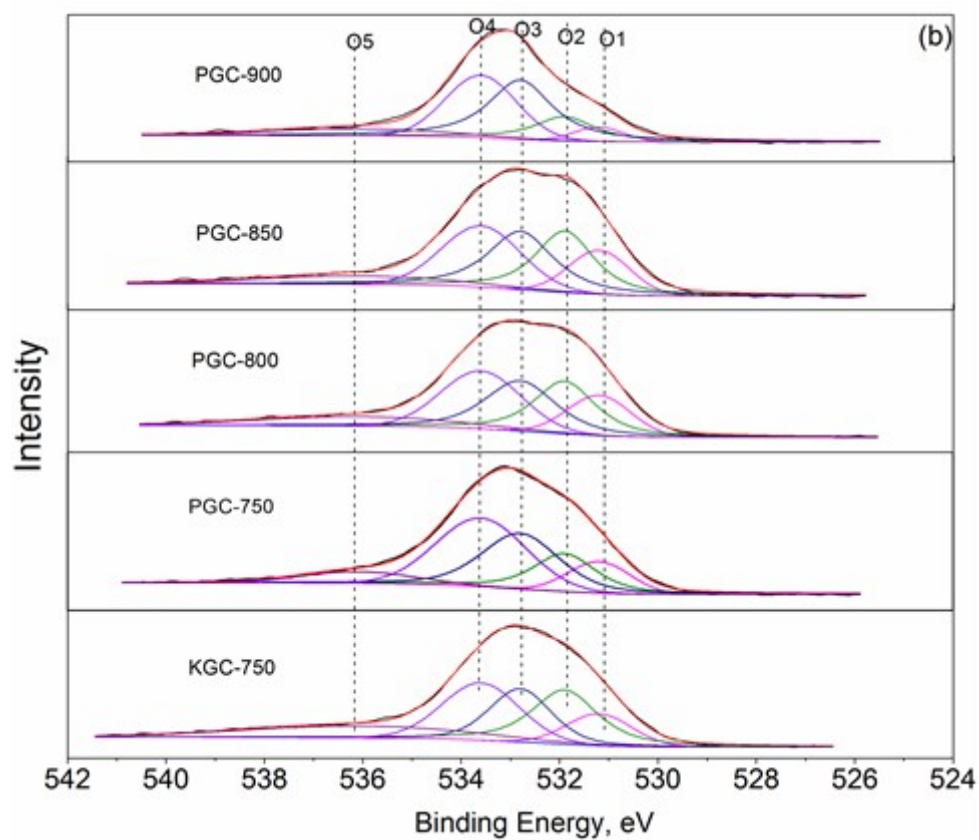
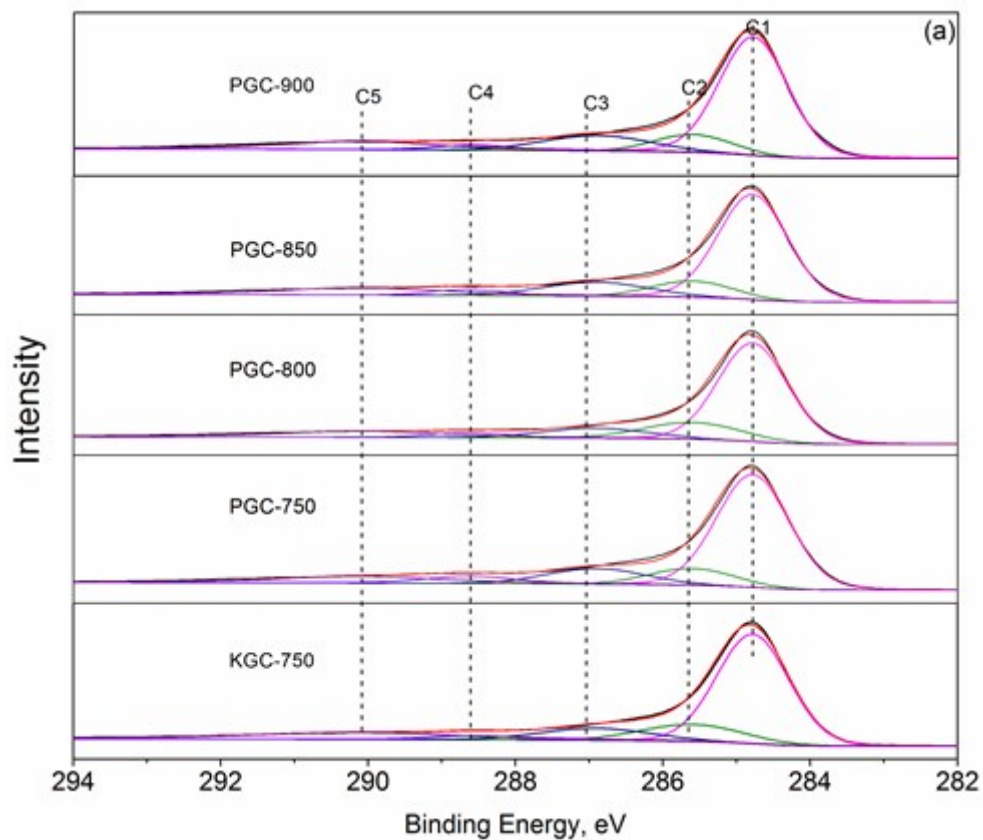


Figure S4. XPS spectra of as-prepared samples (a) C1s and (b) O1s

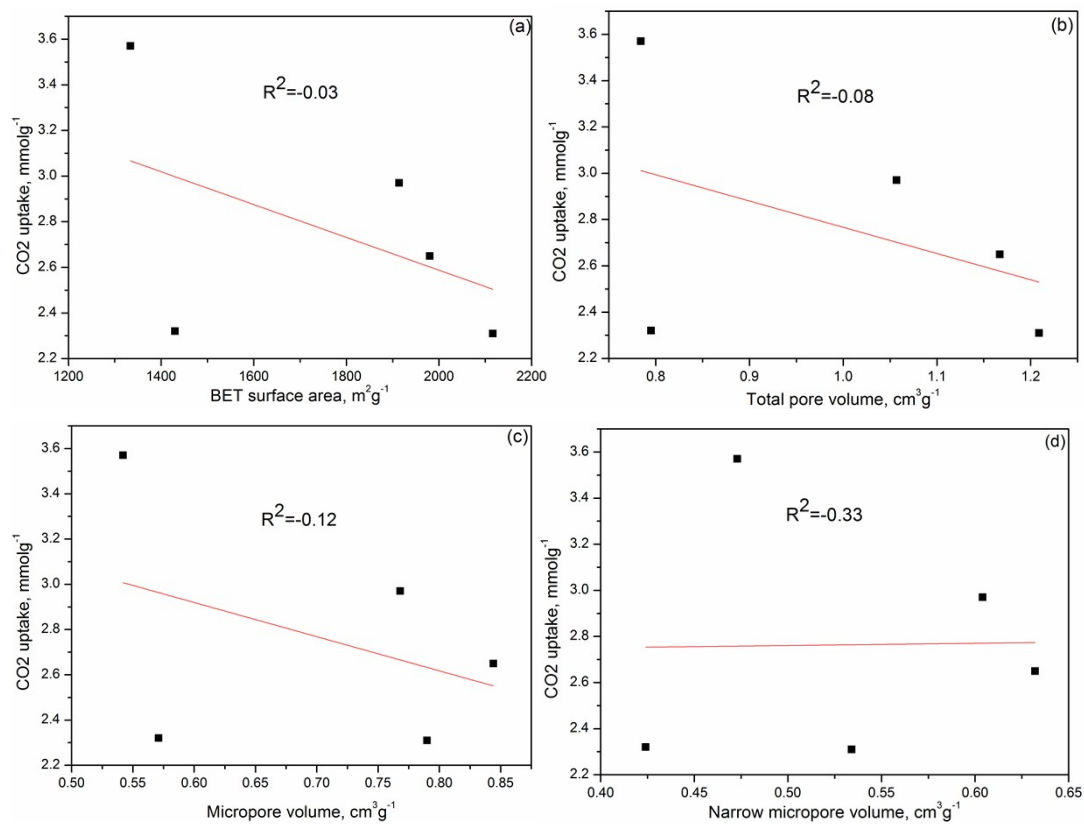


Figure S5 Relationship between CO₂ uptake at 25 °C and textural properties of prepared KC sample: (a) BET surface area (b) total pore volume (c) micropore volume and (d) narrow micropore volume