

# **CO<sub>2</sub> Adsorption Thermodynamics over N-substituted/grafted Graphanes: a DFT Study**

*Jing Xiao*<sup>\*[a]</sup>, *Siddarth Sitamraju*<sup>[b]</sup>, *Michael J. Janik*<sup>[b,c]</sup>

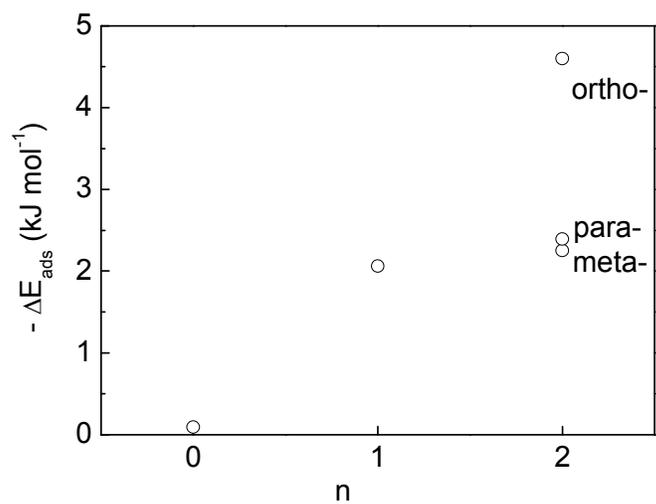
[a] Key Laboratory of Heat Transfer Enhancement and Energy Conservation of  
Education Ministry, and School of Chemistry and Chemical Engineering, South China  
University of Technology, Guangzhou 510640, China

[b] EMS Energy Institute, the Pennsylvania State University, University Park, PA  
16802, U.S.

[c] Department of Chemical Engineering, the Pennsylvania State University,  
University Park, PA 16802, U.S.

Corresponding Author: \*E-mail: [cejingxiao@scut.edu.cn](mailto:cejingxiao@scut.edu.cn) (J.X.)

## Supporting Information



**Figure S1.** CO<sub>2</sub> adsorption energy versus degree of N-substitution in a 4×4 graphane unit cell.