

Supporting information

A large number of low coordinated atoms in boron nitride for outstanding adsorptive desulfurization performance

Jun Xiong^[a], Lei Yang^[b], Yanhong Chao^[b], Jingyu Pang^[b], Peiwen Wu^[b], Ming Zhang^[a], Wenshuai Zhu,^{*[b]} and Huaming Li^{*[a]}

^[a]Institute for Energy Research, Jiangsu University, 301 Xuefu Road, Zhenjiang 212013 (PR China)

^[b]School of Chemistry and Chemical Engineering, Jiangsu University, 301 Xuefu Road, Zhenjiang 212013 (PR China)

E-mail: lihm@ujs.edu.cn (H.M. Li), zhuws@ujs.edu.cn (W.S. Zhu)

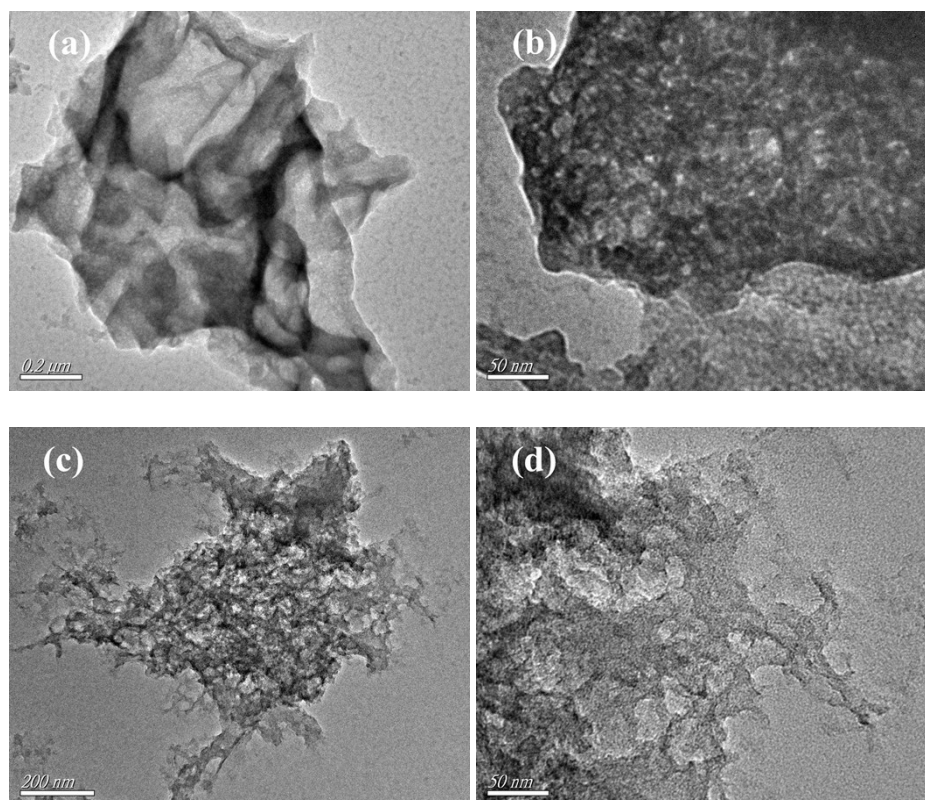


Fig. S1. The TEM images of (a, b) BN-C and (c, d) BN-C₂.

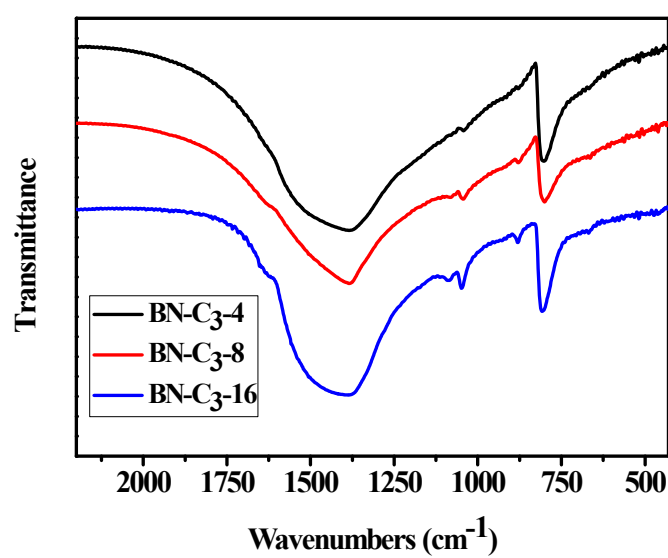


Fig. S2. FTIR spectra of BN-C₃-4, BN-C₃-8, and BN-C₃-16.

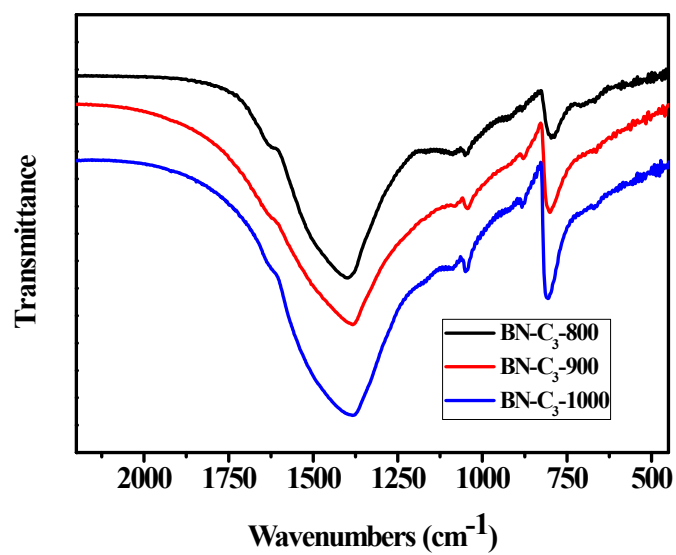


Fig. S3. FTIR spectra of BN-C₃-800, BN-C₃-900, and BN-C₃-1000.

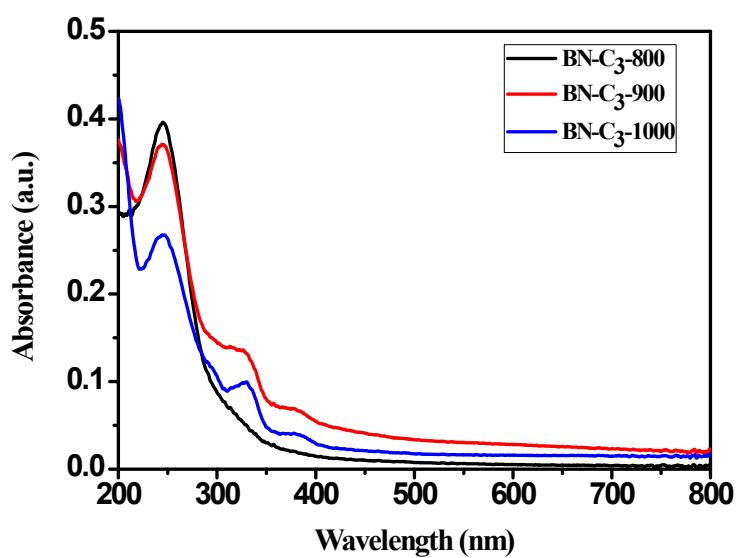


Fig. S4. UV-Vis spectra of BN-C₃-800, BN-C₃-900, and BN-C₃-1000.

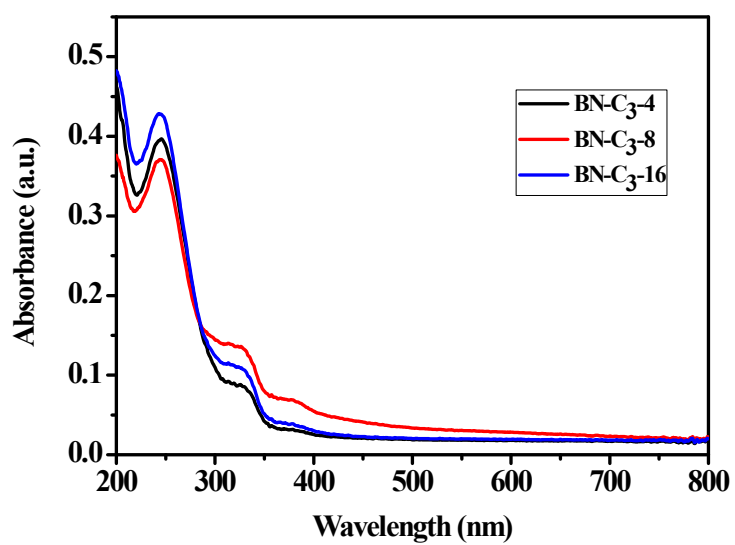


Fig. S5. UV-Vis spectra of BN-C₃-4, BN-C₃-8, and BN-C₃-16.

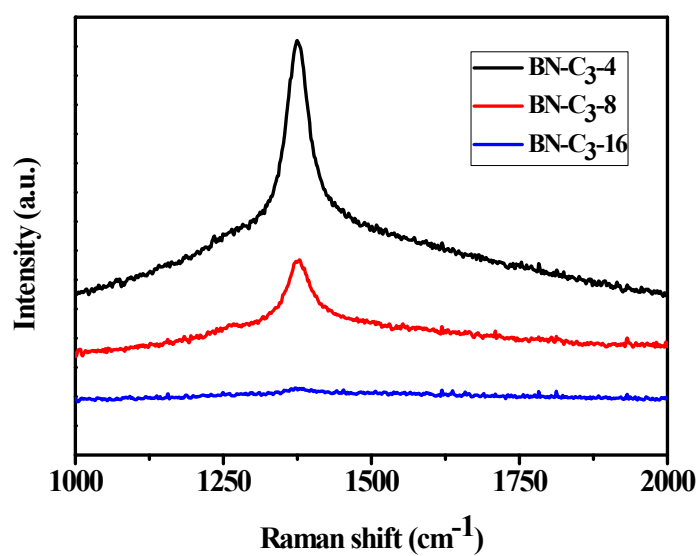


Fig. S6. Raman spectra of BN-C₃-4, BN-C₃-8, and BN-C₃-16.

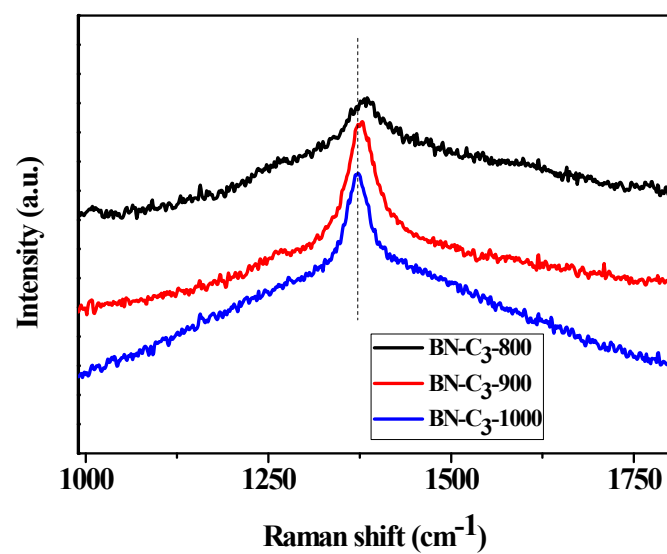


Fig. S7. Raman spectra of BN-C₃-800, BN-C₃-900, and BN-C₃-1000.

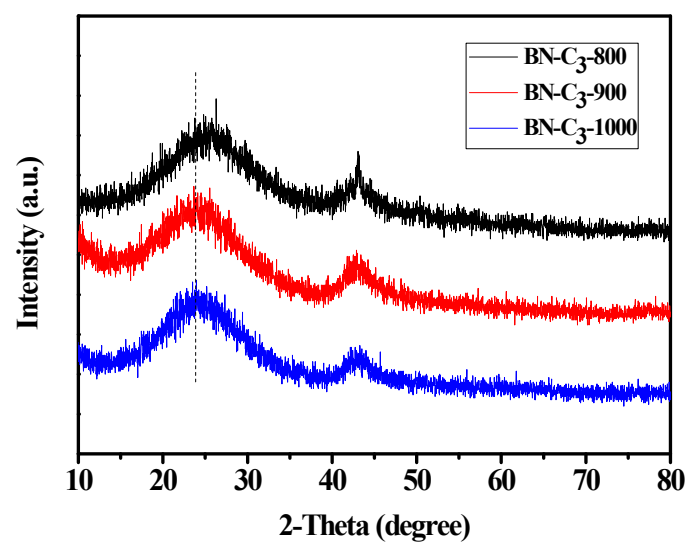


Fig. S8. XRD spectra of BN-C₃-800, BN-C₃-900, and BN-C₃-1000.

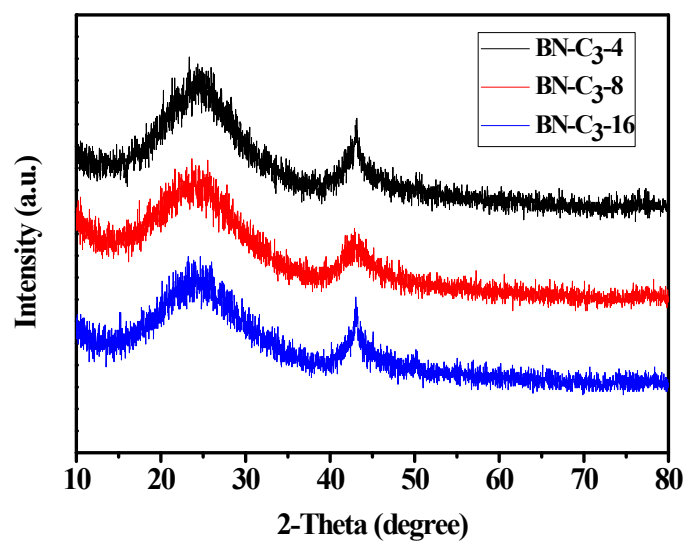


Fig. S9. XRD spectra of BN-C₃-4, BN-C₃-8, and BN-C₃-16.

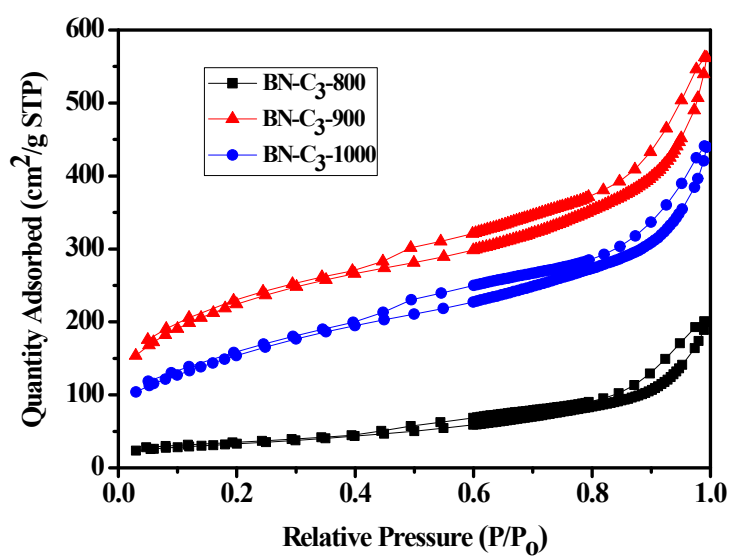


Fig. S10. N₂ adsorption-desorption isotherms of BN-C₃-800, BN-C₃-900, and BN-C₃-1000.

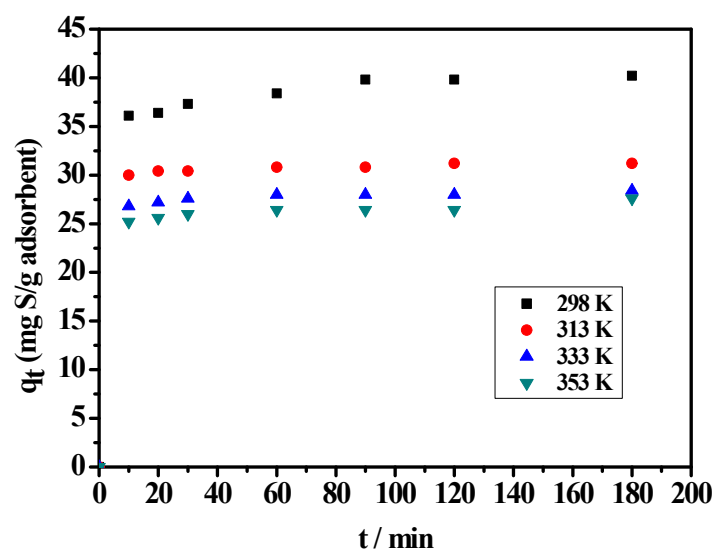


Fig. S11. Effect of temperature on DBT adsorption by BN-C₃.
 Experimental conditions: 500 ppm initial sulfur concentration, V (oil) = 20 mL, m (adsorbent) = 0.05 g, atmospheric pressure.