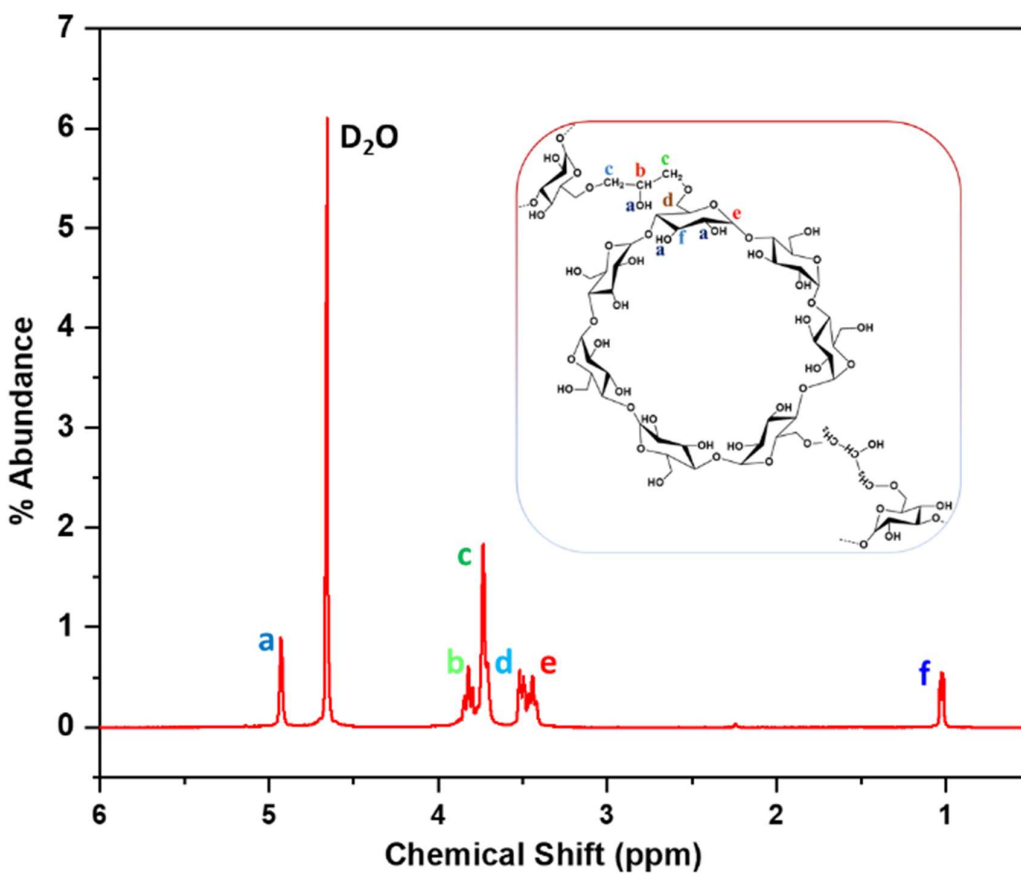
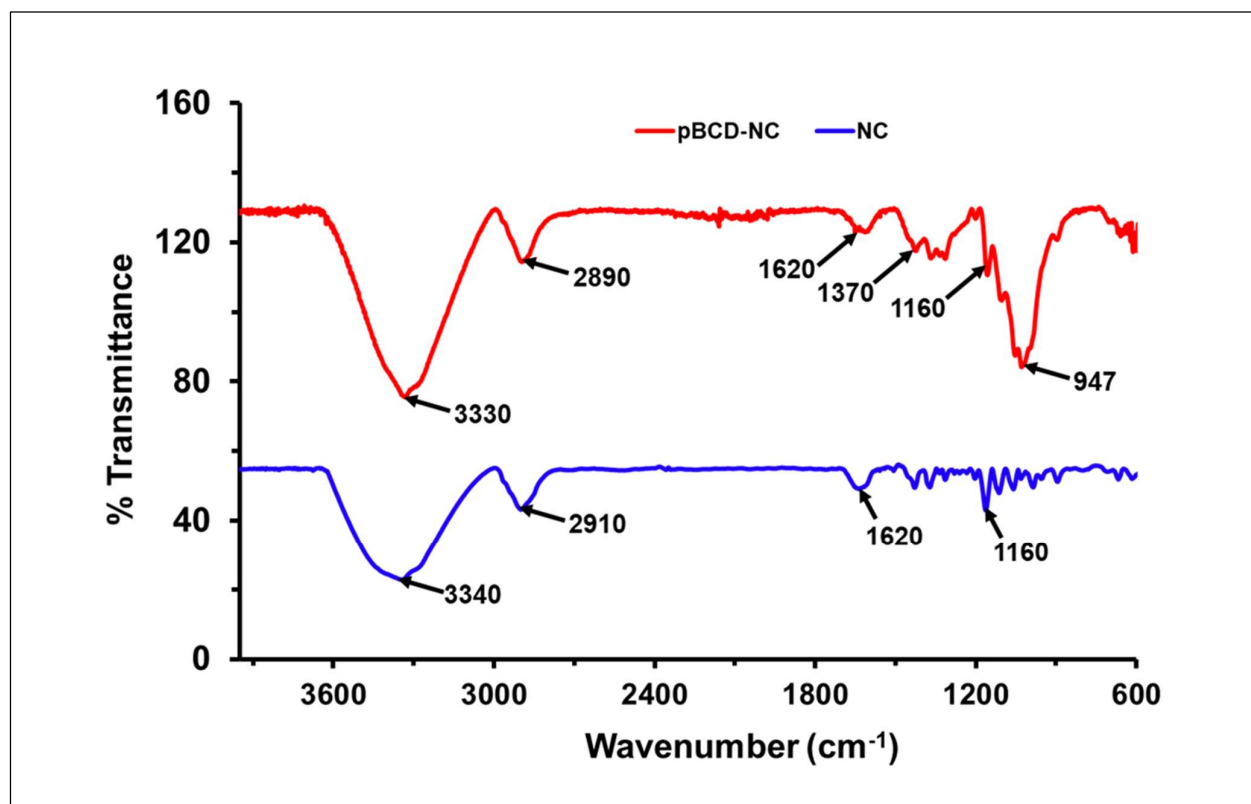


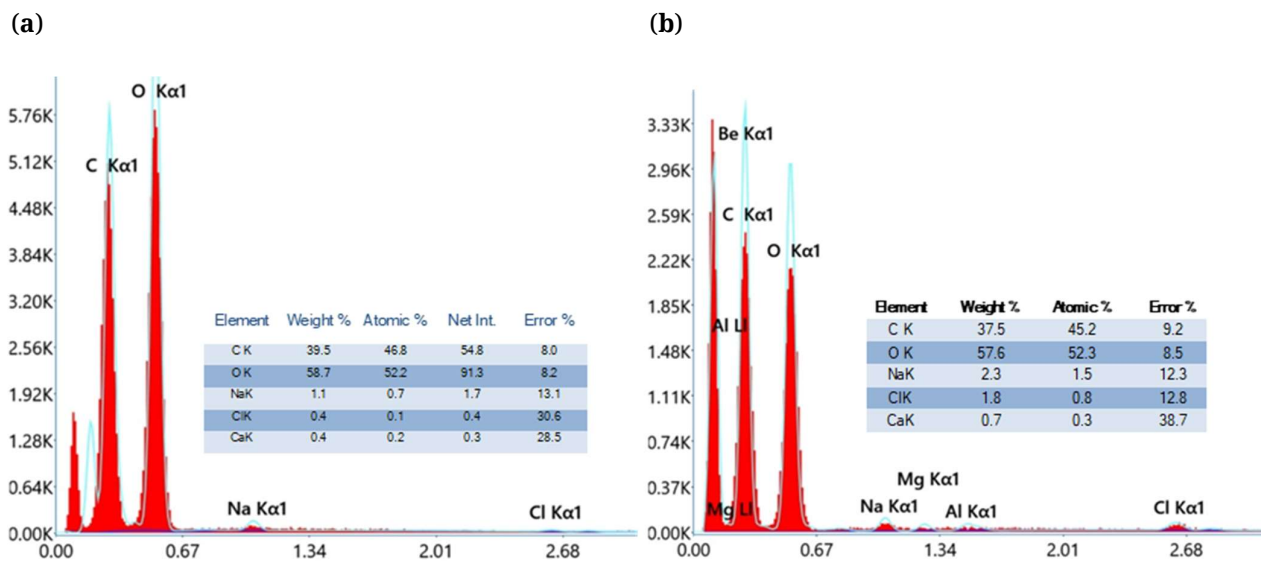
Supplementary Figure S1. FTIR spectroscopy of  $\beta\text{-CD}$  and  $p\text{-}\beta\text{-CD}$  samples.



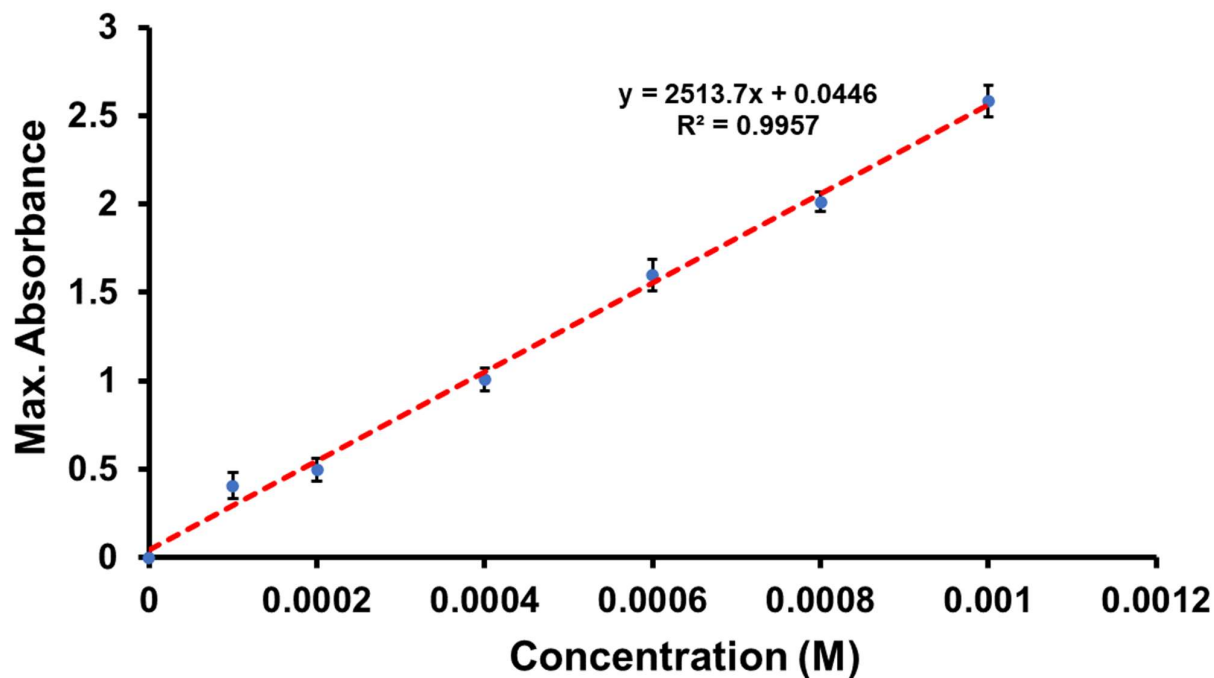
Supplementary Figure S2.  $^1\text{H-NMR}$  spectroscopy of  $p\text{-}\beta\text{-CD}$  sample.



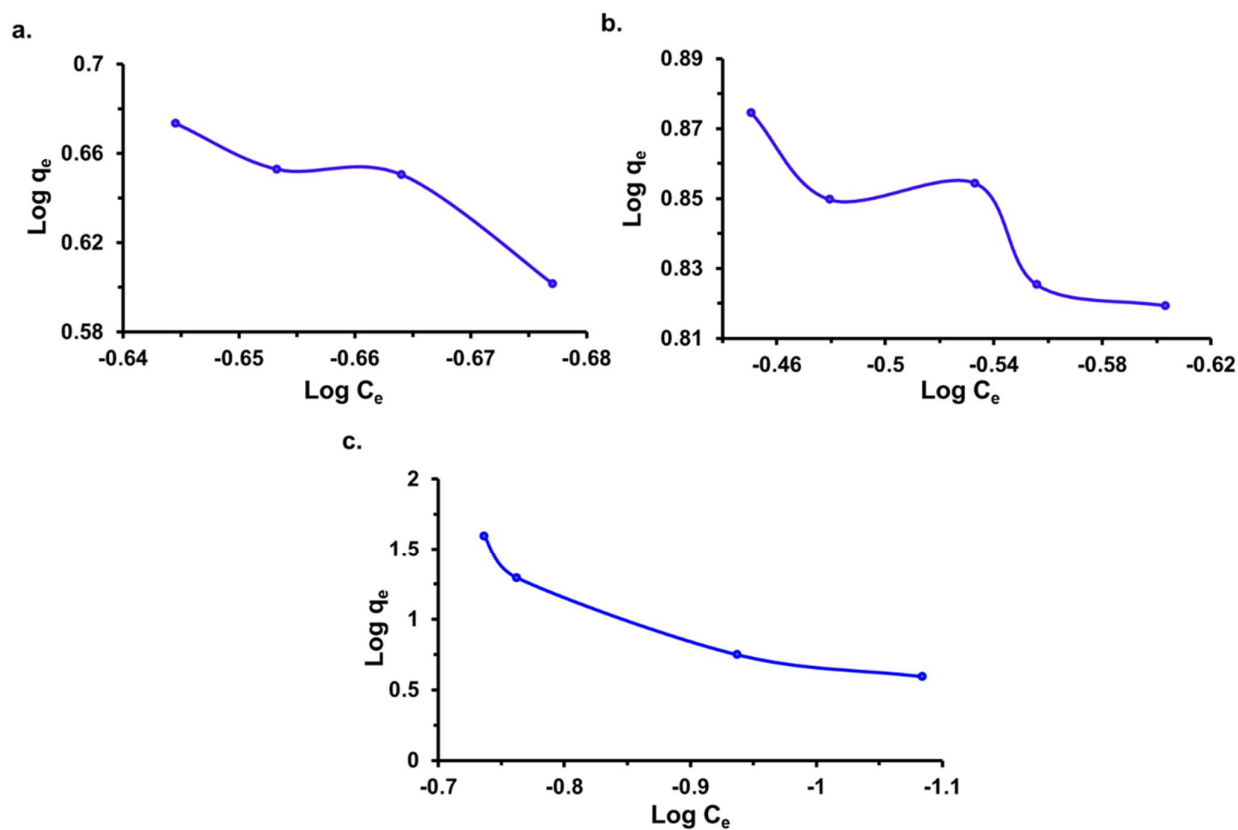
Supplementary Figure S3. FTIR spectroscopy of NC and NC-p-βCD adsorbents.



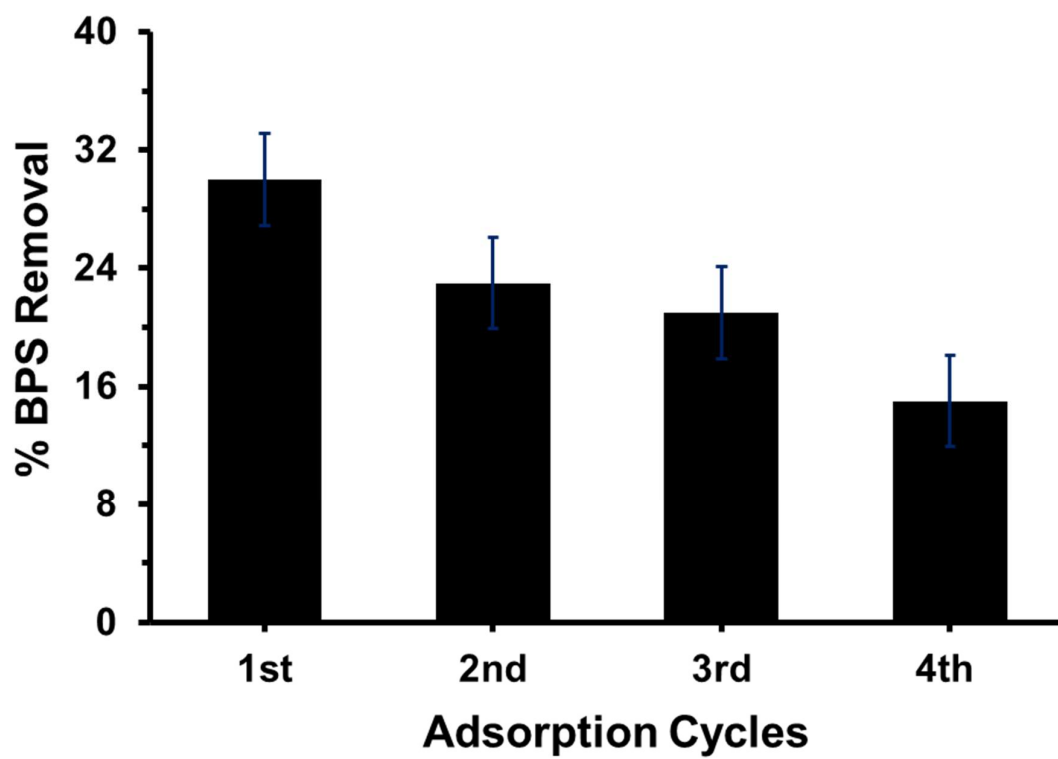
Supplementary Figure S4. EDS analysis of (a) NC and (b) NC-p-βCD adsorbents.



**Supplementary Figure S5.** Absorbance vs concentration plot of BPS for molar extinction coefficient determination.



**Supplementary Figure S6.** Freundlich adsorption kinetics of (a)  $10^{-3}$  M BPS (b)  $2 \times 10^{-3}$  M TCS, and (c)  $2 \times 10^{-3}$  M TCP removal using 100 mg of NC-p $\beta$ CD adsorbent.



Supplementary Figure S7. Reusability test of NC-p-βCD adsorbent for the removal of  $10^{-4}$  M BPS solution.