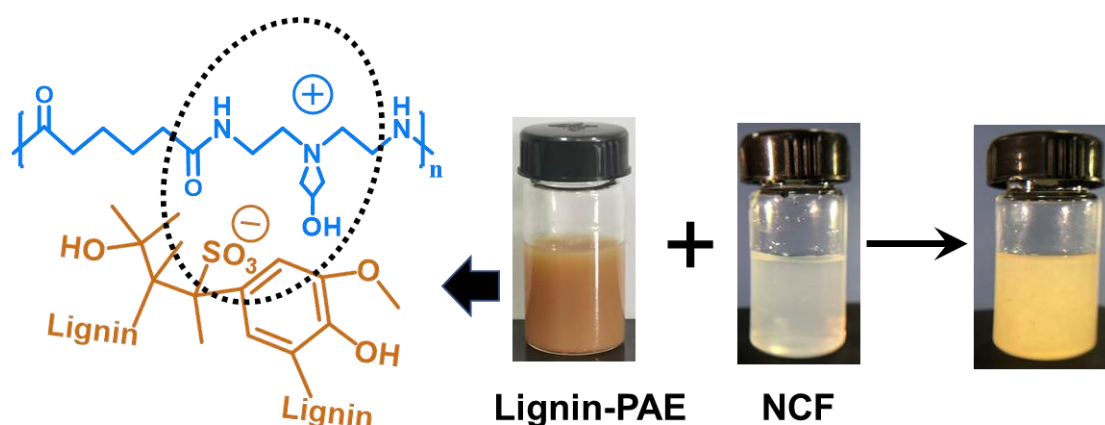


# A Biomimetic Lignocellulose Aerogel-Based Membrane for Efficient Phenol Extraction from Water

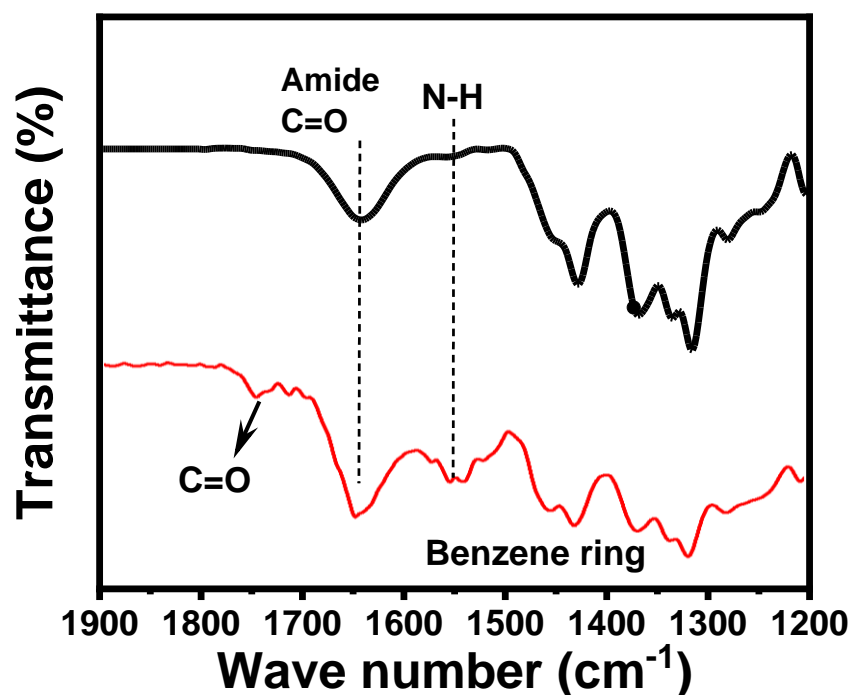
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**Figure S1.** The lignin-PAE/CNF mixture suspension used for the ultrasonic atomization. Left the complex mechanism between lignin and PAE. Lignin-PAE was prepared by mixing equal volume of the 2 wt.% lignin and 2 wt.% PAE, CNF concentration was 2 wt.%.



**Figure S2.** FTIR spectra of pure nanocellulose and NALG.

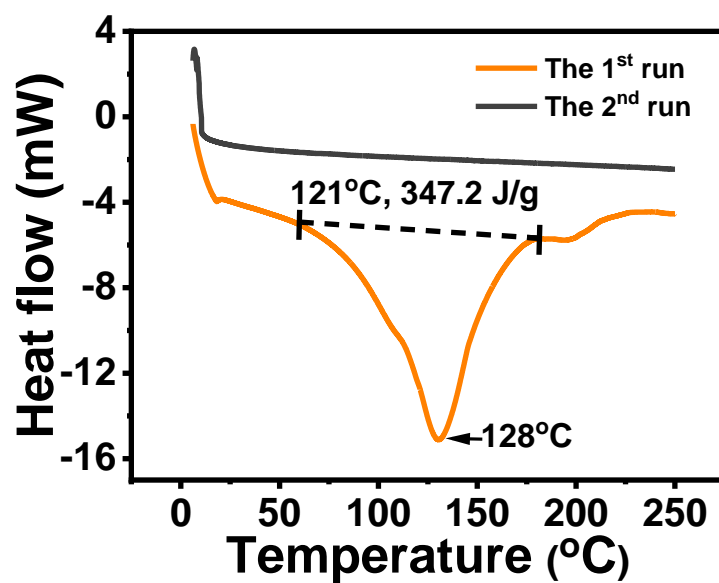


Figure S3. DSC curves of the NALG with two temperature increases.

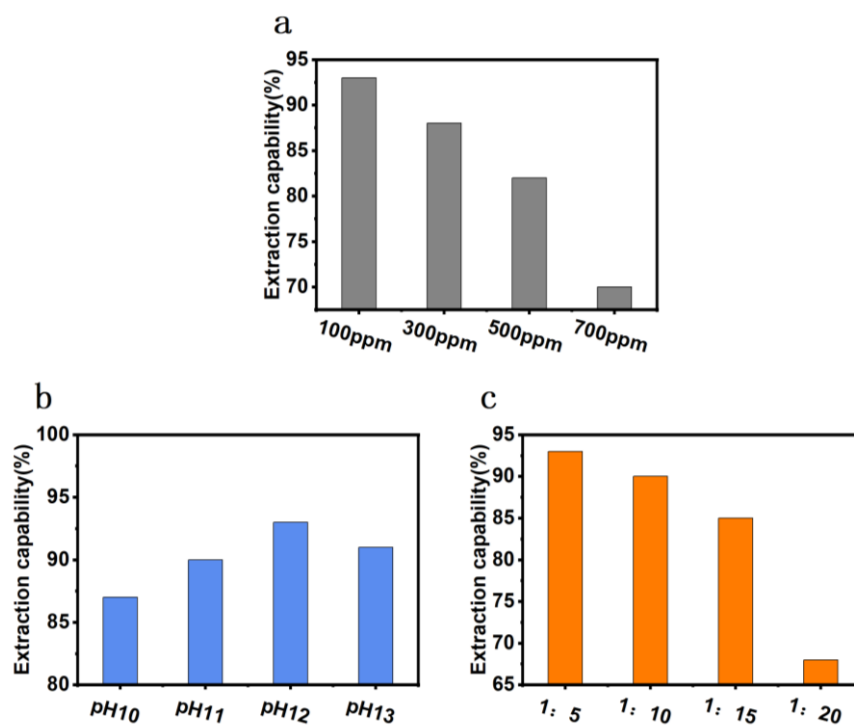


Figure S4. Extraction capacity of BSM for (a) Different external phenol concentrations with a volume ratio of 1:10 and a pH of 12 (b) Different external water pHs with an external phenol concentration of 100 ppm and a volume ratio of 1:10 (c) Different external water volume ratios with an applied phenol concentration of 100 ppm and an applied water pH of 12.