

Supplementary Materials

Separation of Low-Molecular-Weight Organics by Water-Soluble Macrocyclic Arenes

Wenhui Wang, Zheng Li, Chunli Song, Jie Yang and Yingwei Yang*

International Joint Research Laboratory of Nano-Micro Architecture Chemistry, College of Chemistry, Jilin University, 2699 Qianjin Street, Changchun 130012, China;
wangwh22@mails.jlu.edu.cn (W.W.); lz20@mails.jlu.edu.cn (Z.L.); songcl20@mails.jlu.edu.cn (C.S.); jieyang@jlu.edu.cn (J.Y.)

* Correspondence: ywyang@jlu.edu.cn

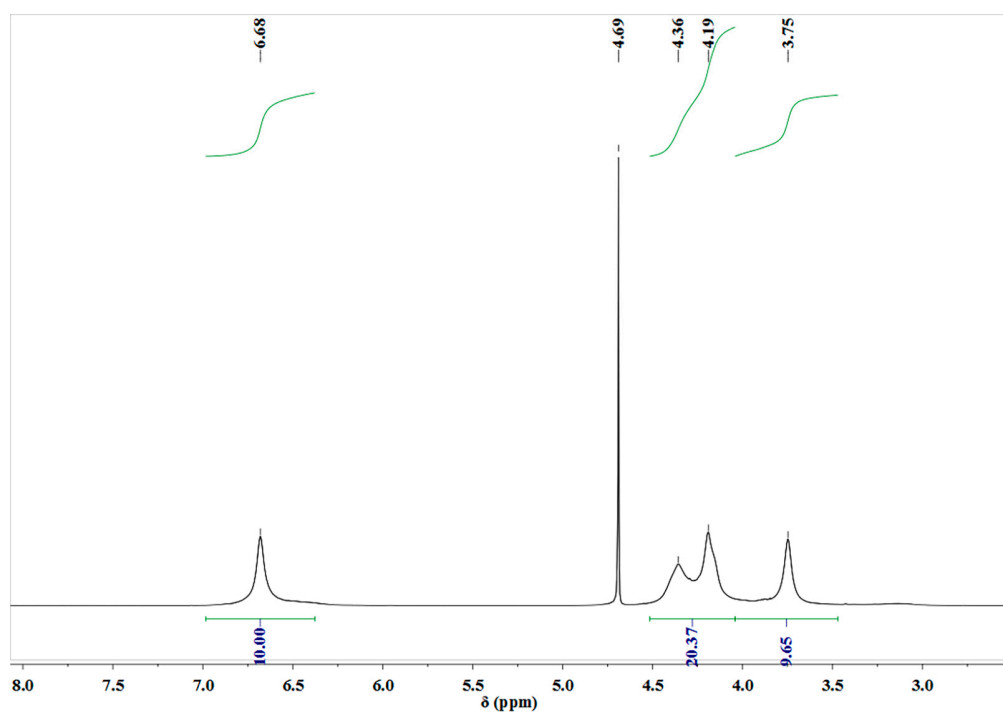


Figure S1. ^1H NMR spectrum (400 MHz, 298 K, D_2O) of WP5.

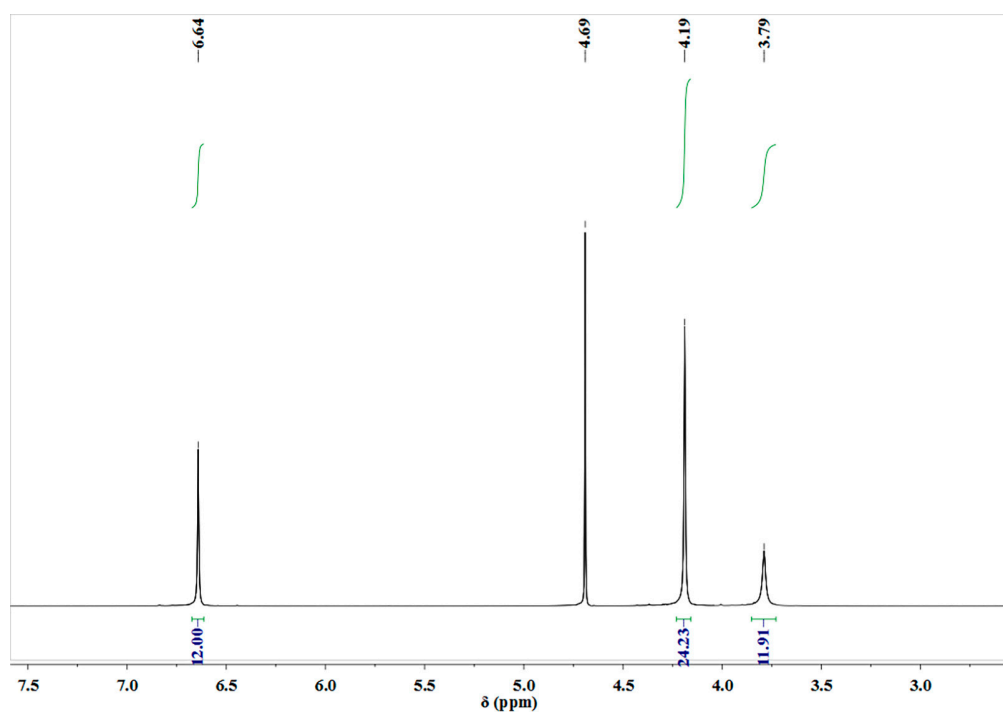


Figure S2. ^1H NMR spectrum (400 MHz, 298 K, D_2O) of WP6.

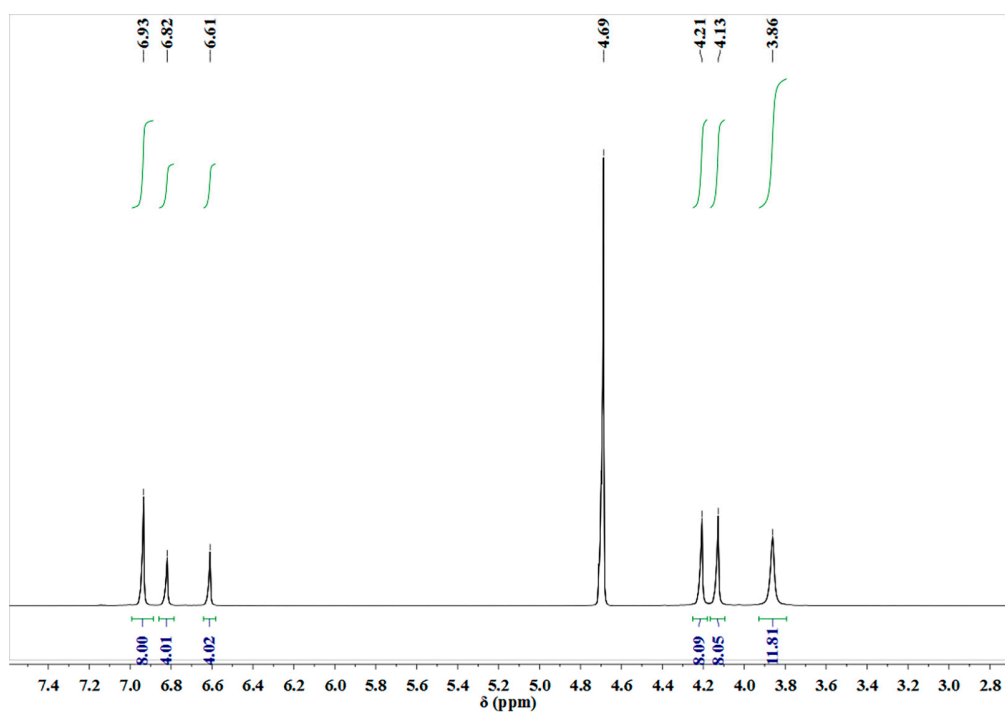


Figure S3. ¹H NMR spectrum (400 MHz, 298 K, D₂O) of WLT6.

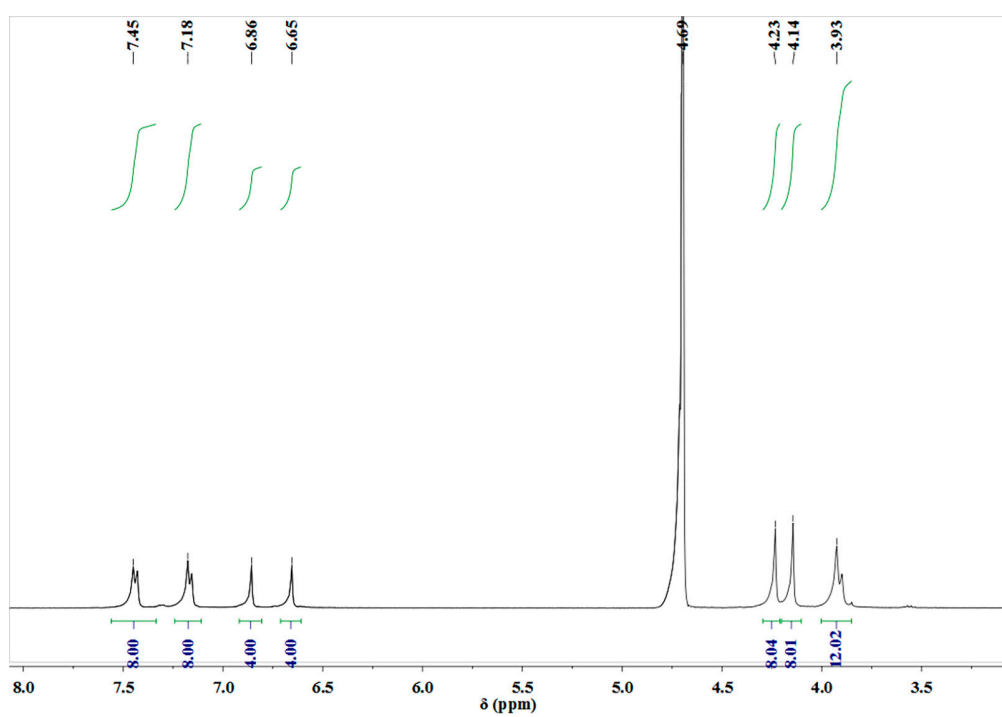


Figure S4. ¹H NMR spectrum (400 MHz, 298 K, D₂O) of WBpP6.

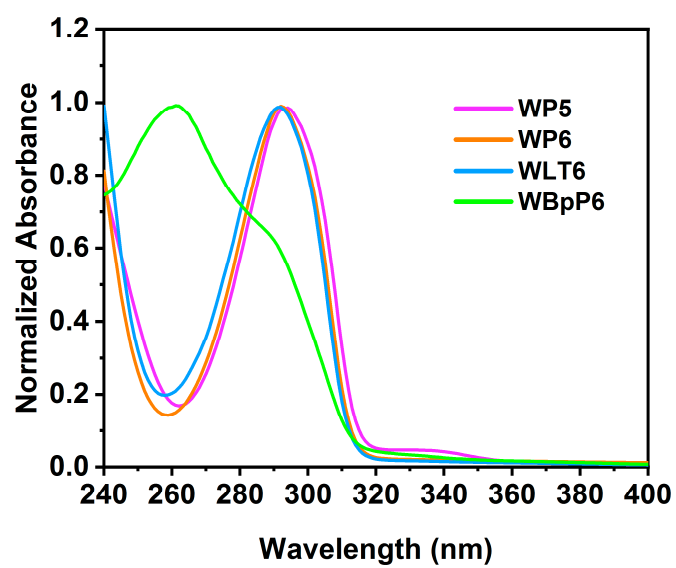


Figure S5. Normalized UV-vis absorption spectra of **WP5**, **WP6**, **WLT6** and **WBpP6** in deionized water (concentration, 10^{-6} M).

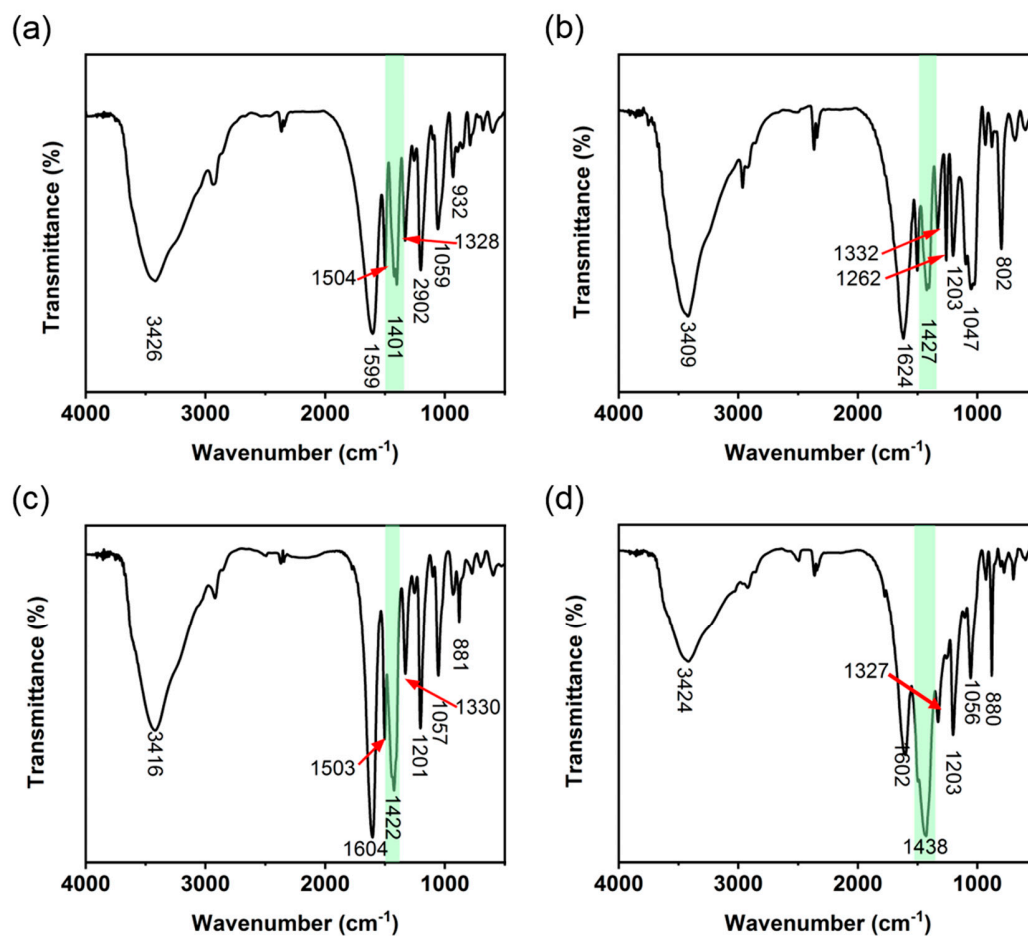


Figure S6. Fourier-transform infrared (FTIR) spectra of (a) **WP5**, (b) **WP6**, (c) **WLT6** and (d) **WBpP6** and the characteristic peaks of -COO^- groups have been highlighted.

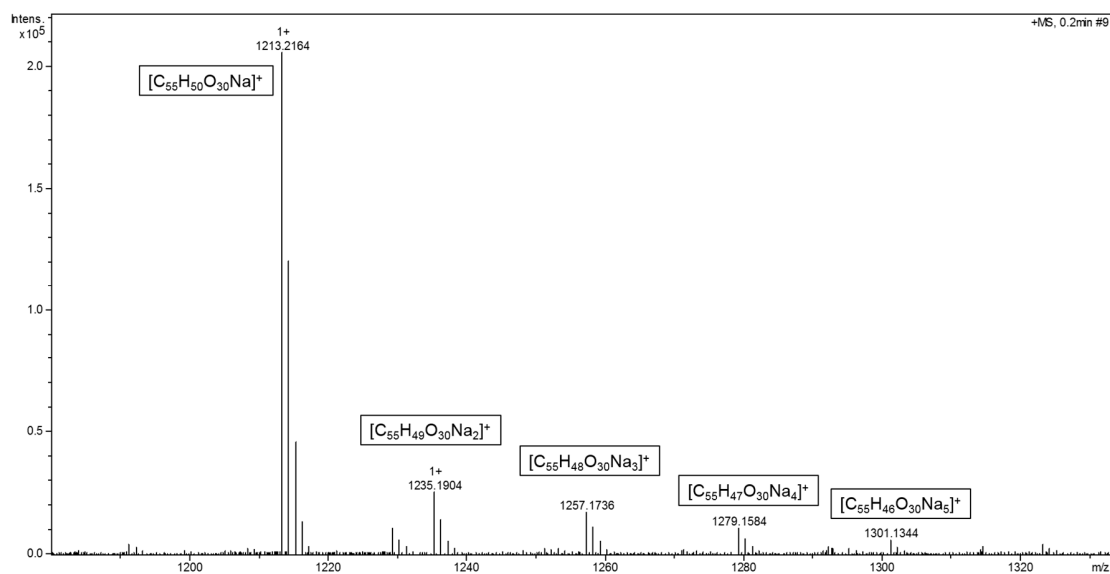


Figure S7. Electrospray ionization mass spectrometry of **WP5**. Assignment of the main peak: m/z 1213.2279 $[M-9Na+10H]^+$.

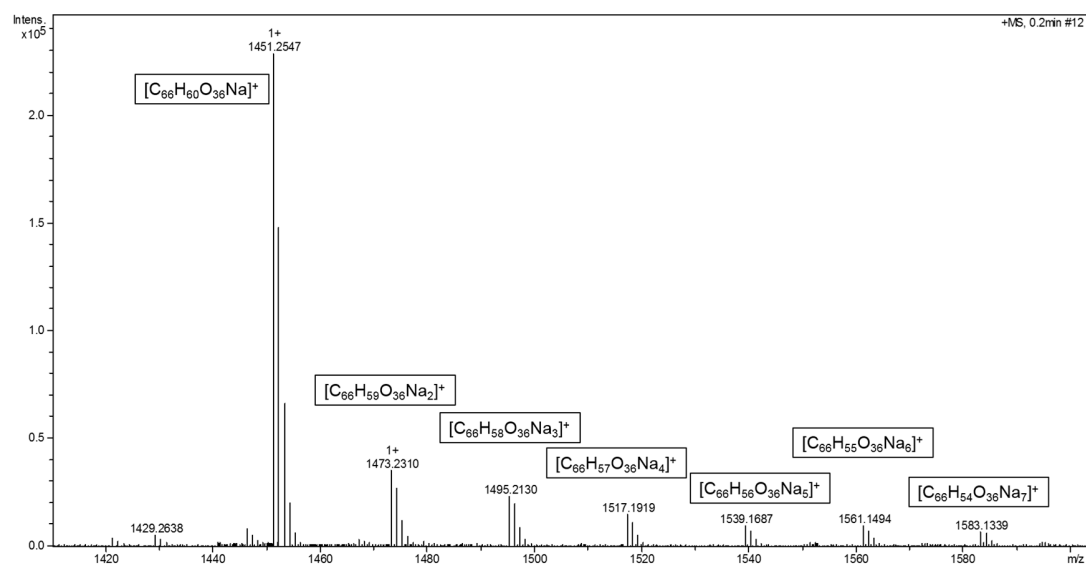


Figure S8. Electrospray ionization mass spectrometry of **WP6**. Assignment of the main peak: m/z 1451.2756 $[M-11Na+12H]^+$.

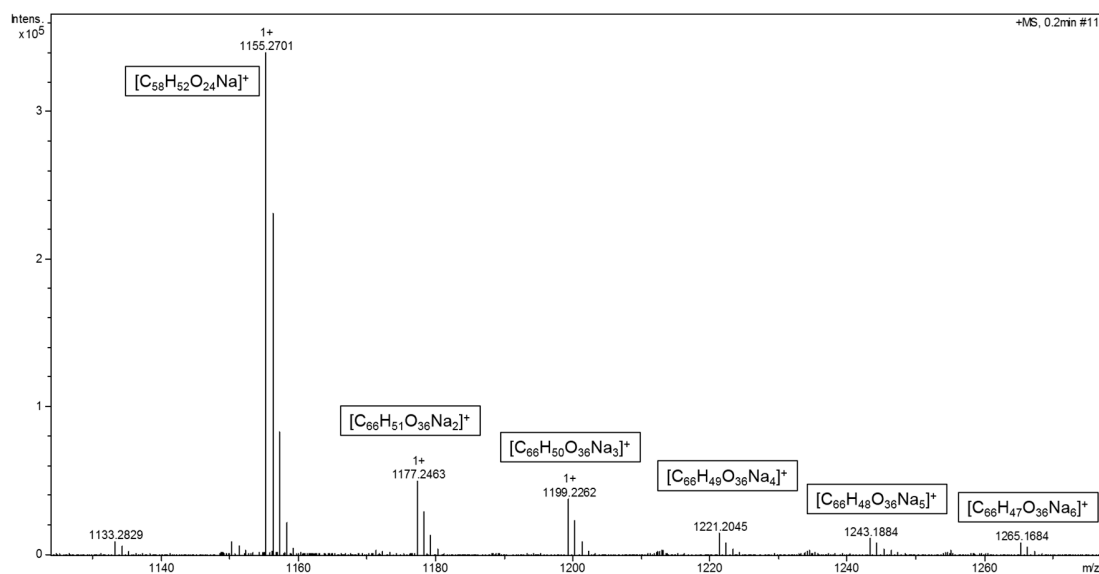


Figure S9. Electrospray ionization mass spectrometry of WLT6. Assignment of the main peak: m/z 1155.2741 [M-7Na+8H]⁺.

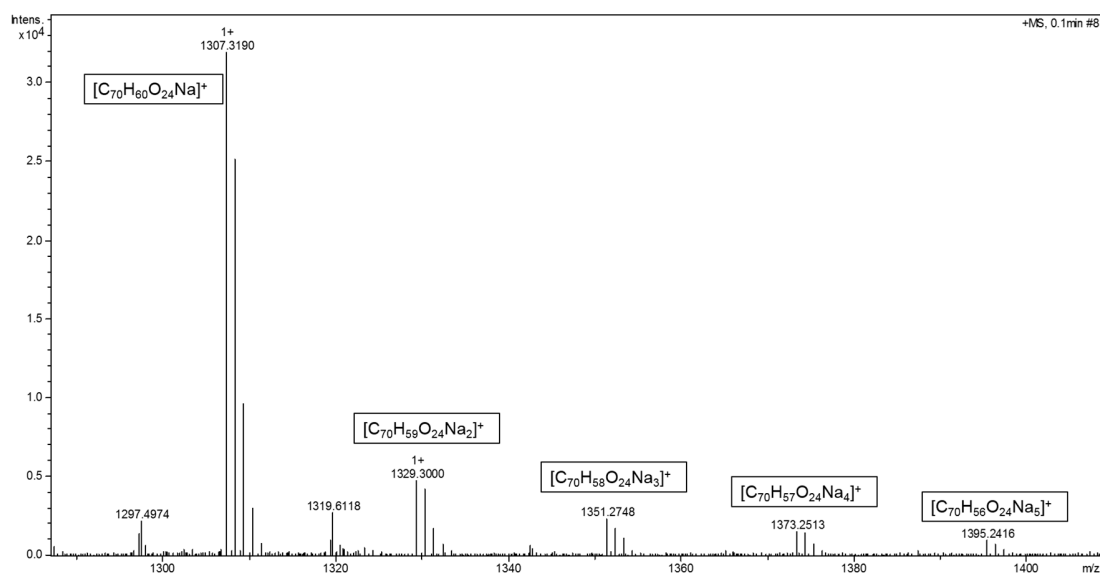


Figure S10. Electrospray ionization mass spectrometry of WBpP6. Assignment of the main peak: m/z 1307.3367 [M-7Na+8H]⁺.

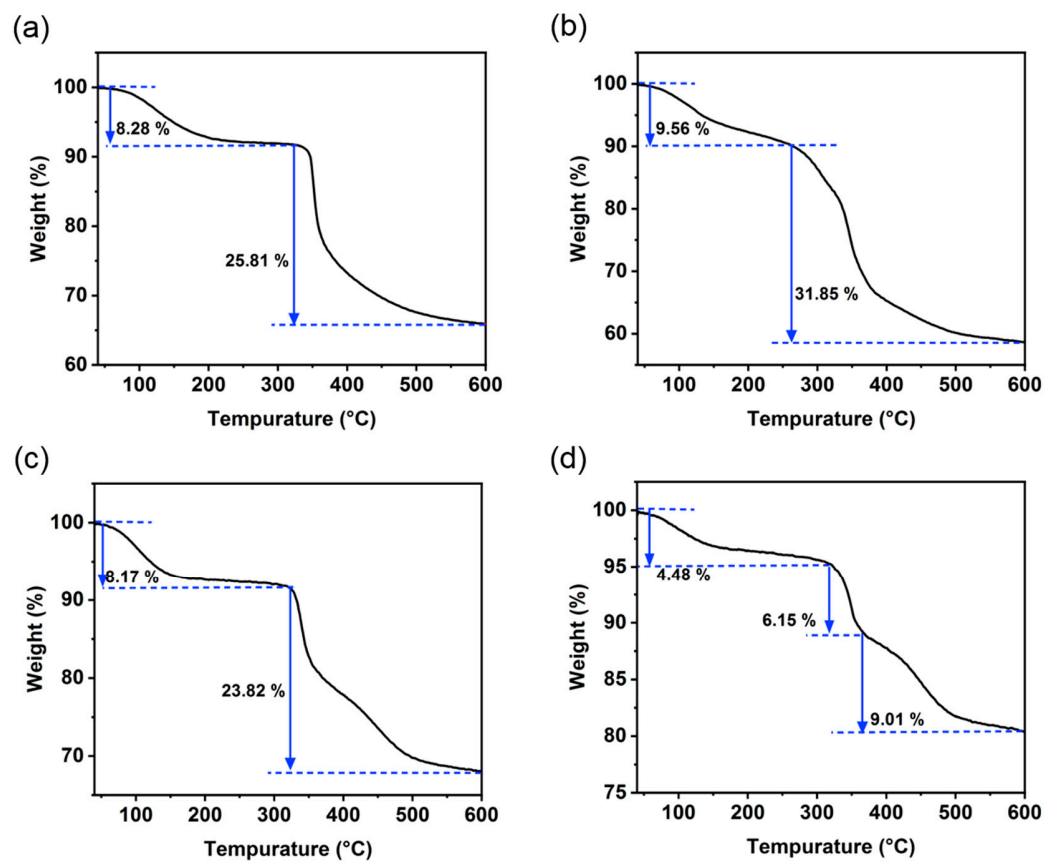


Figure S11. Thermogravimetric analysis of (a) WP5, (b) WP6, (c) WLT6 and (d) WBpP6.

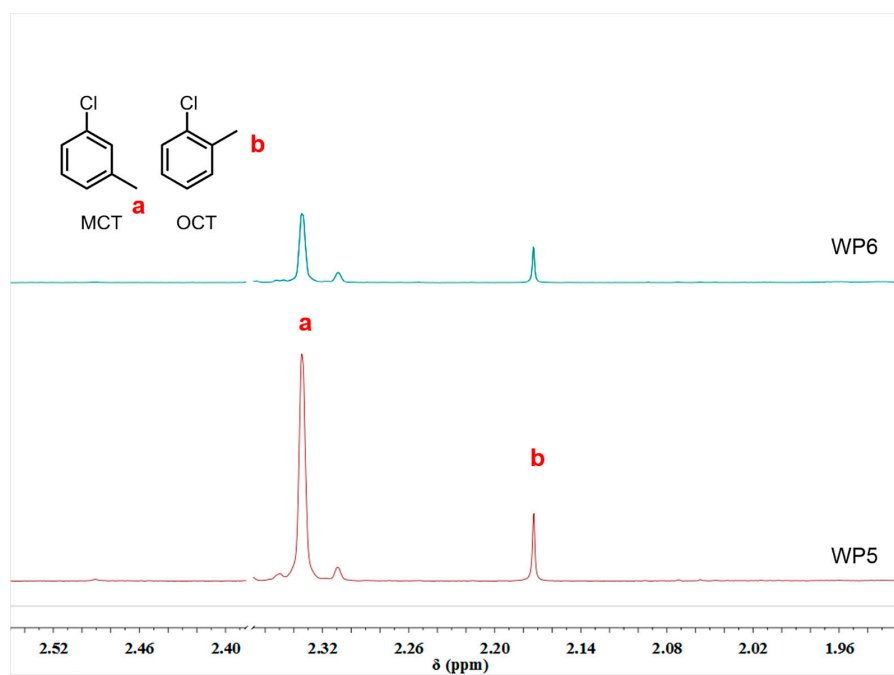


Figure S12. Partial ^1H NMR spectra (400 MHz, CDCl_3 , 298 K) of extracted organic phase from MCT/OCT mixture by **WP5** and **WP6**.

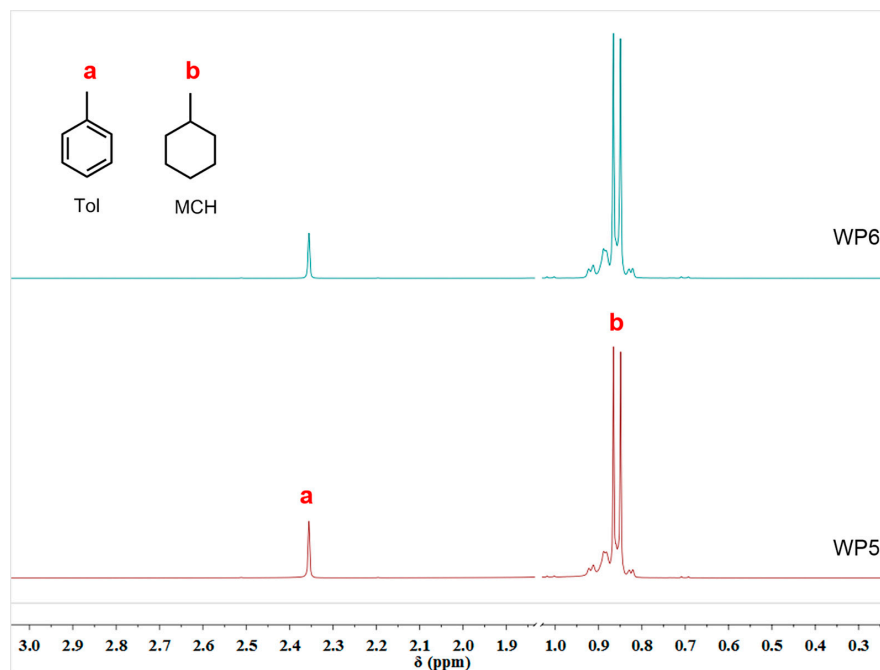


Figure S13. Partial ^1H NMR spectra (400 MHz, CDCl_3 , 298 K) of extracted organic phase from Tol/MCH mixture by **WP5** and **WP6**.

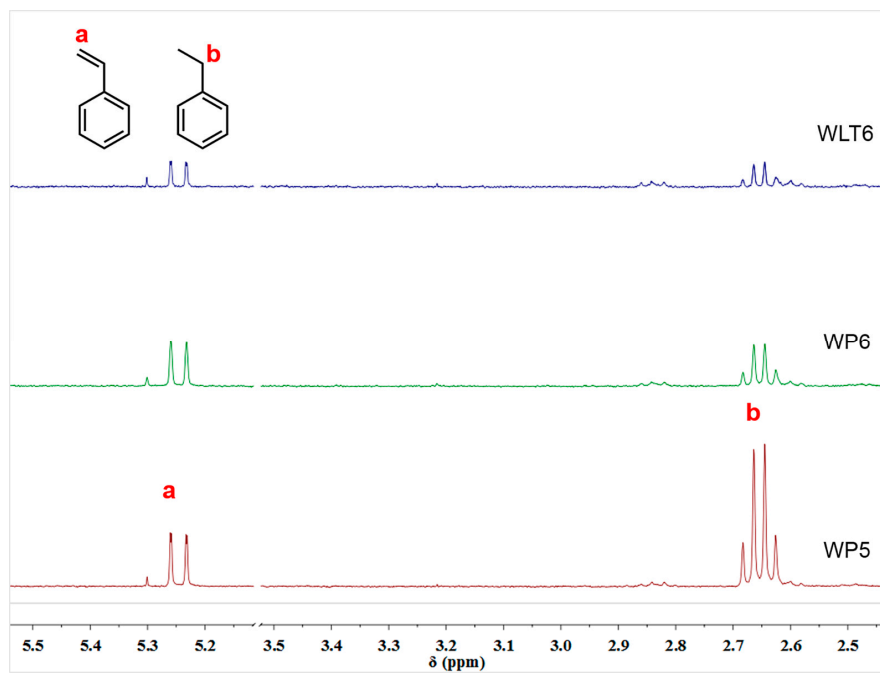


Figure S14. Partial ^1H NMR spectra (400 MHz, CDCl_3 , 298 K) of extracted organic phase from St/EB mixture by **WP5**, **WP6** and **WLT6**.

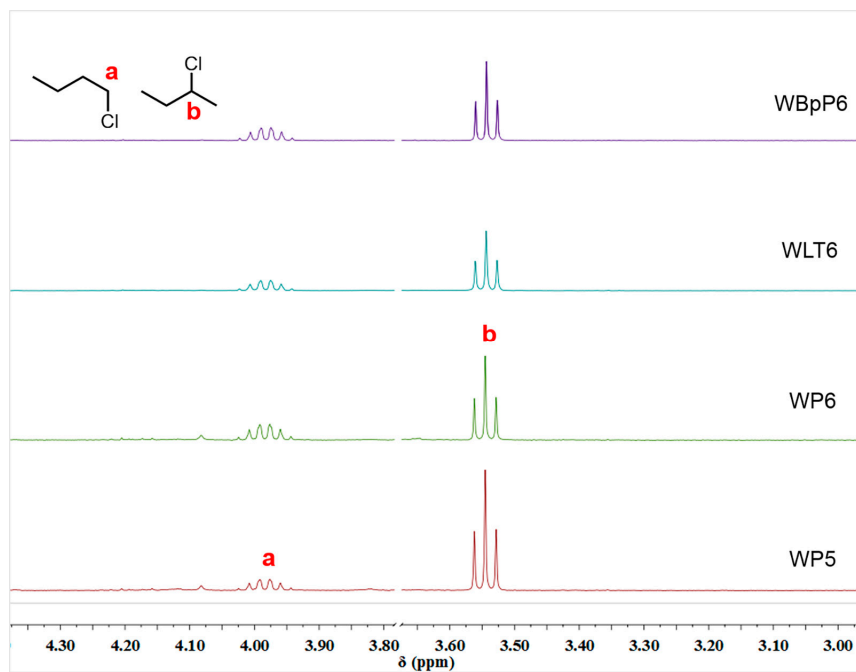


Figure S15. Partial ^1H NMR spectra (400 MHz, CDCl_3 , 298 K) of extracted organic phase from Cl-n-bu/Cl-i-bu mixture by **WP5**, **WP6**, **WLT6** and **WBpP6**.