Supporting Information for:

Immobilization of laccase on magnetically separable biochar for highly efficient removal of bisphenol A in water

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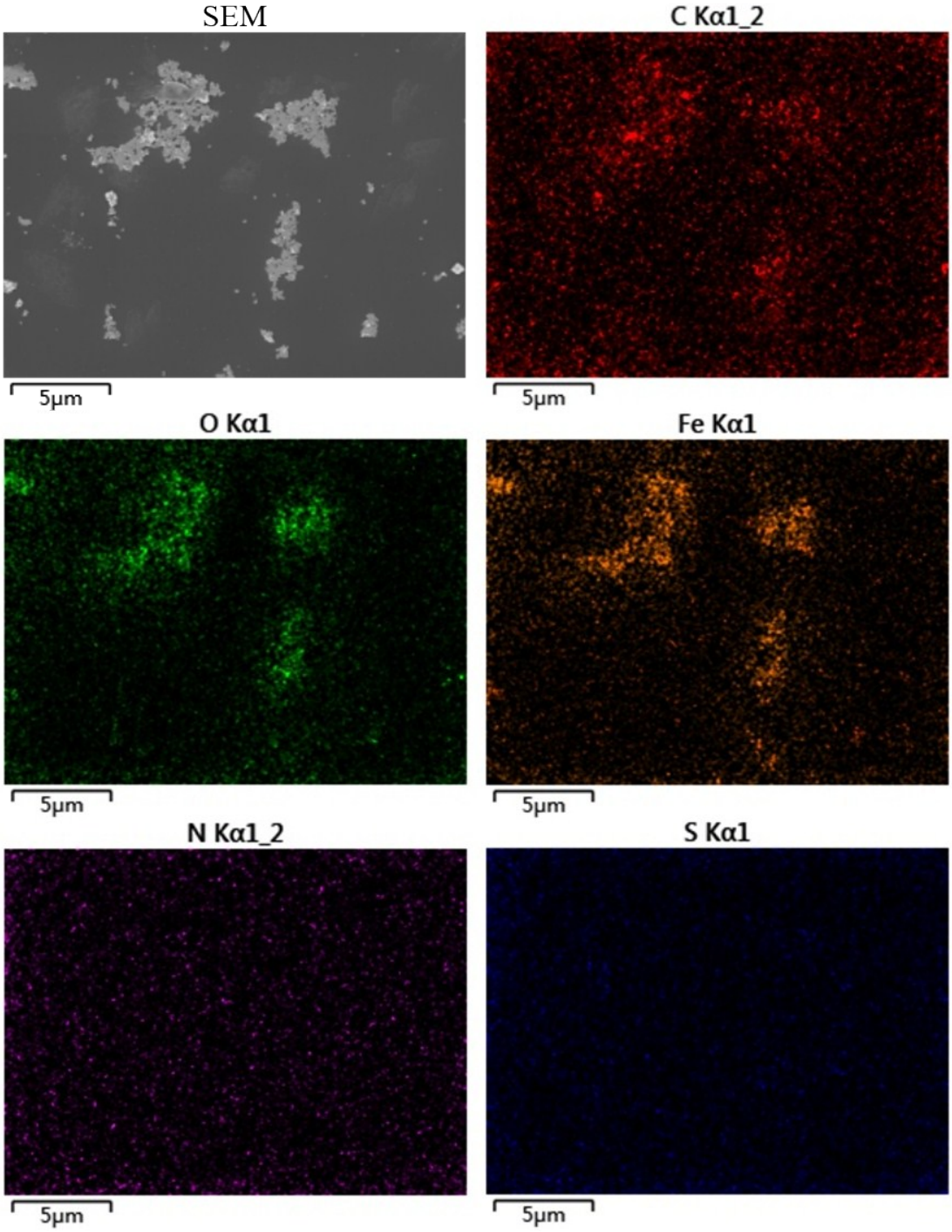


Fig. S1 Element analysis of MBC: mapping images of carbon, oxygen, iron, nitrogen and sulfur by energy dispersive spectrometer.

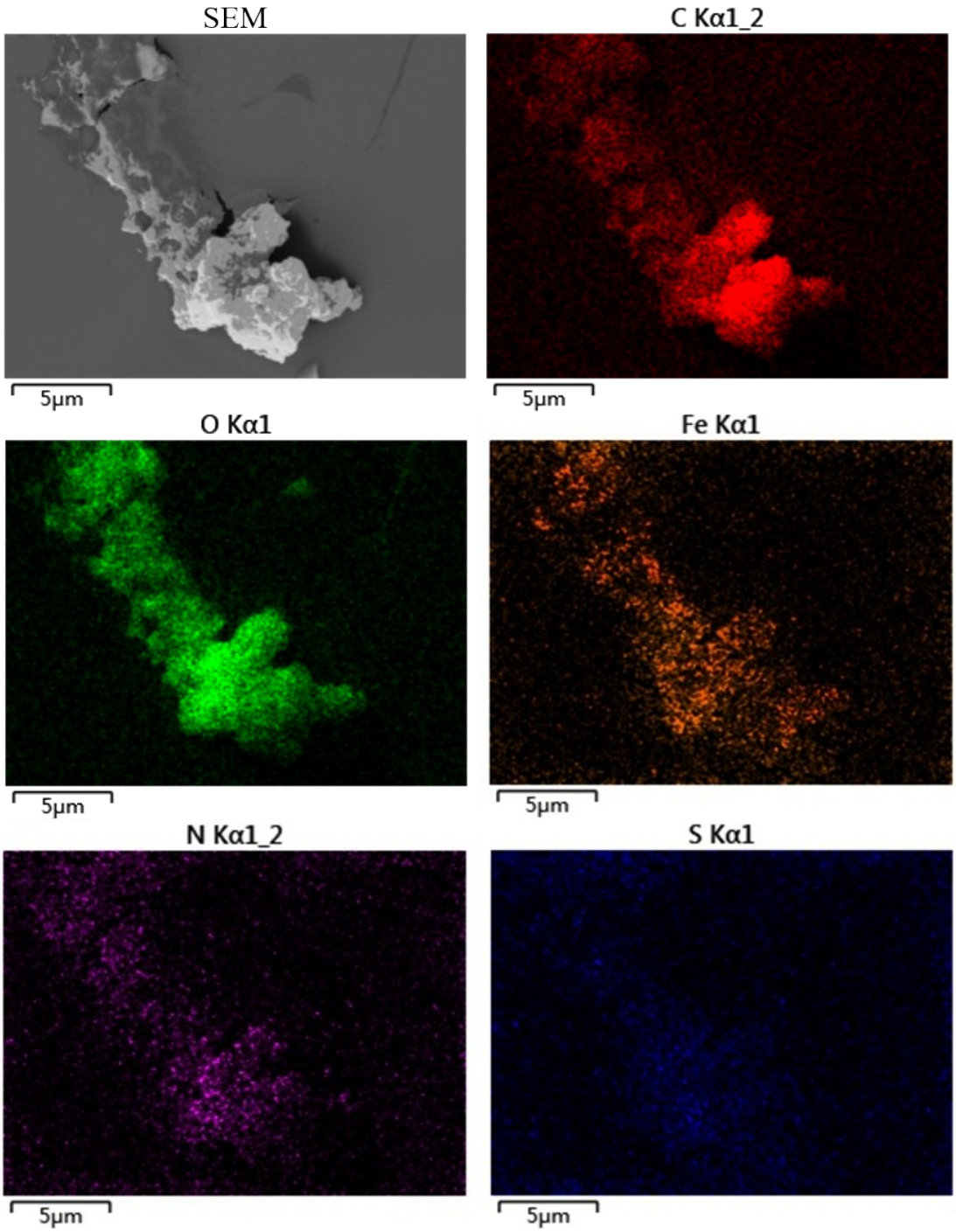


Fig. S2 Element analysis of L-MBC: mapping images of carbon, oxygen, iron, nitrogen and sulfur by energy dispersive spectrometer.

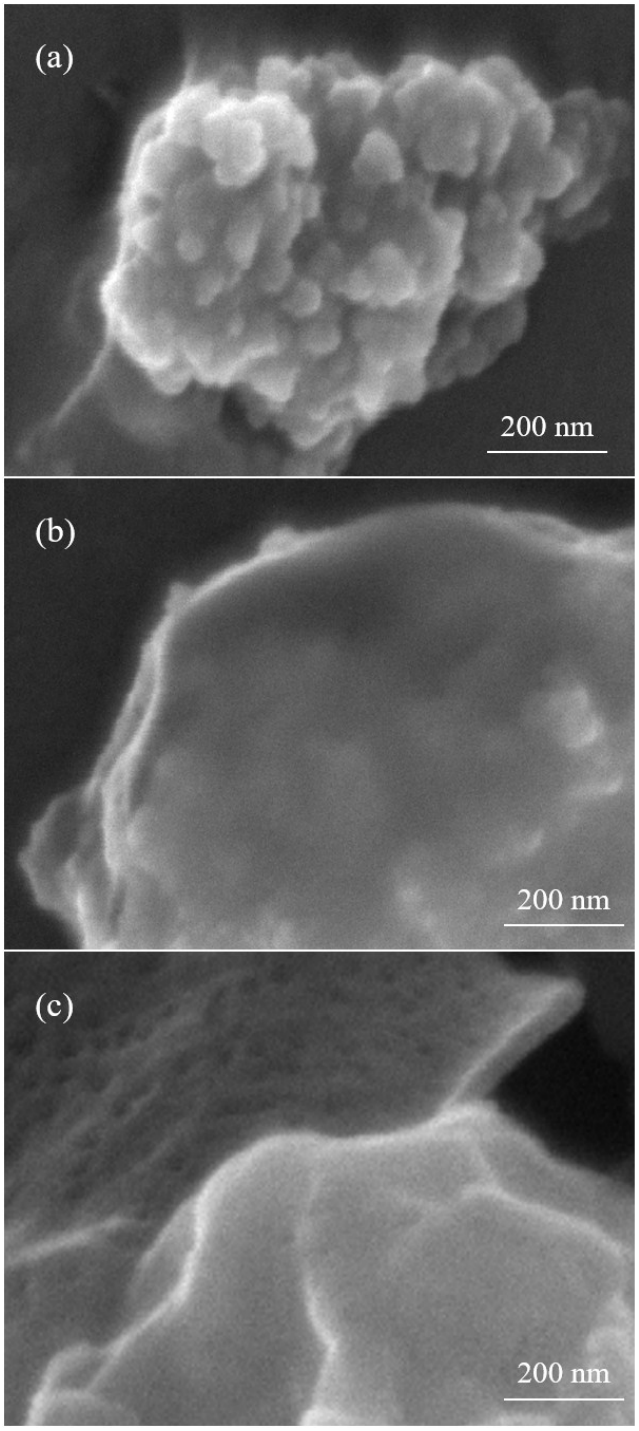


Fig. S3 Magnification of SEM images of (a) magnetic biochar, (b) L-MBC prepared by adsorption and precipitation, (c) L-MBC prepared by adsorption, precipitation and crosslinking.

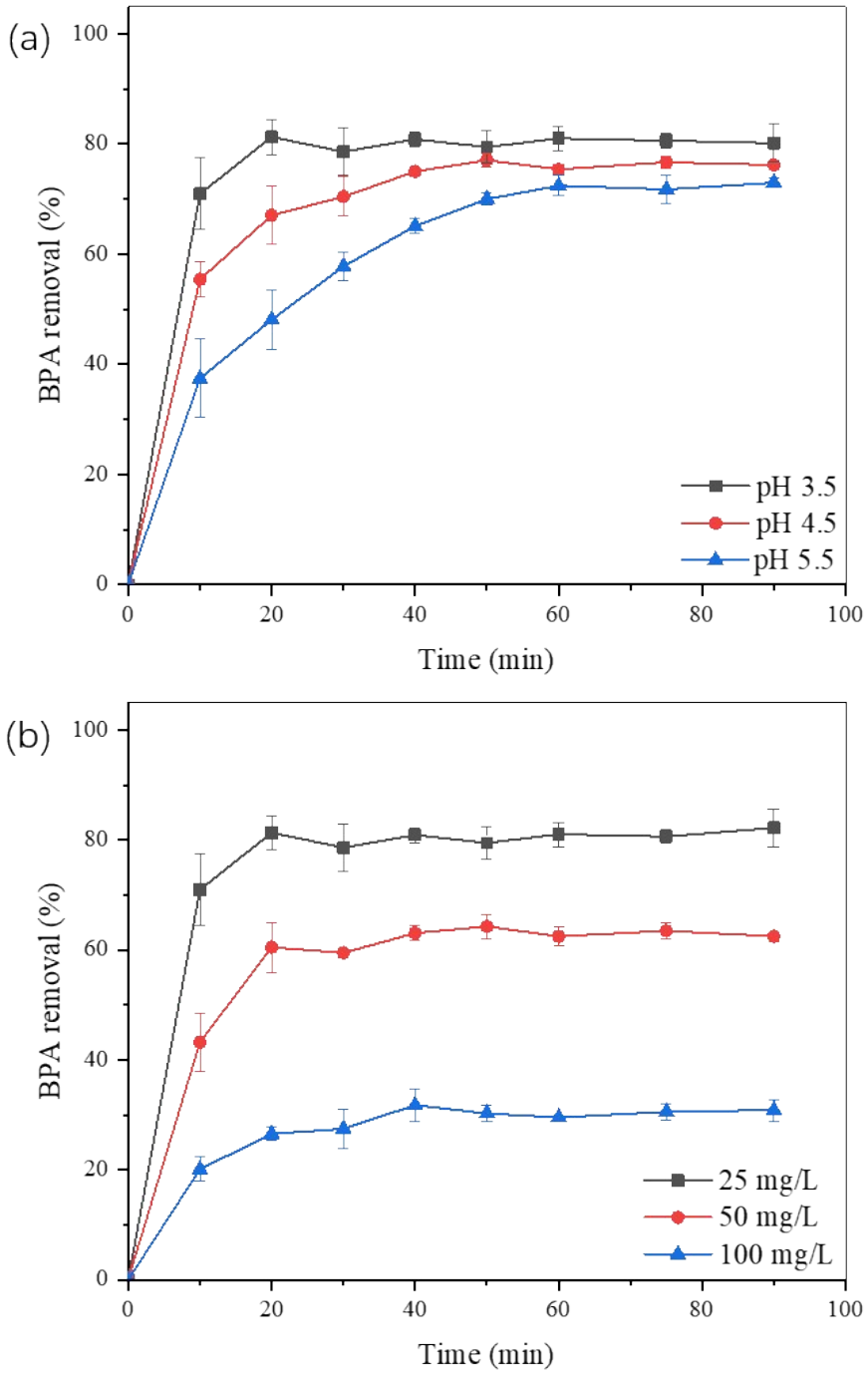


Fig. S4 BPA removal profiles with deactivated L-MBC (0.3 $g \cdot L^{-1}$) at (a) different pH conditions (BPA 25 $mg \cdot L^{-1}$), and (c) with different initial BPA concentrations (pH = 3.5).

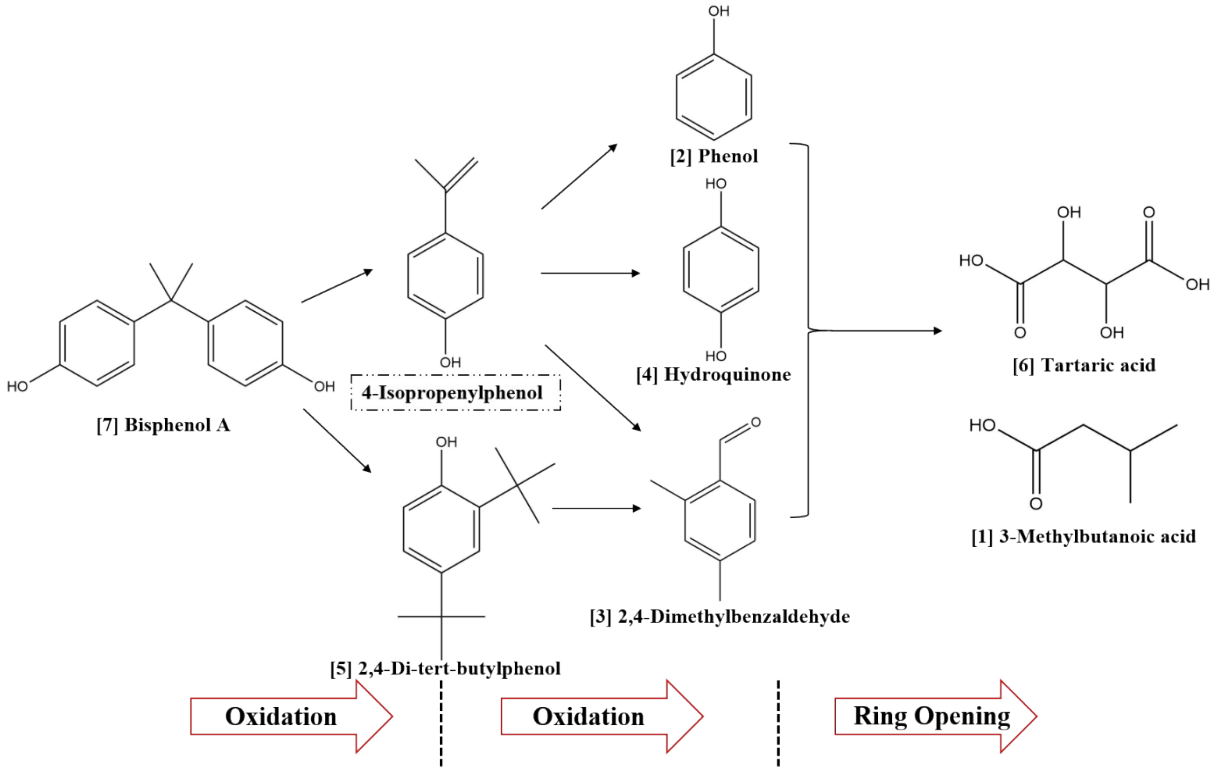


Fig. S5 Possible pathways of BPA degradation by L-MBC based on its degradation products. Compounds that were not identified but may exist in the reaction mixture were highlighted using the dotted boxes.

Table S1

List of produced compounds detected with GC-MS after catalytic degradation of BPA by the L-MBC.

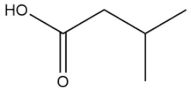
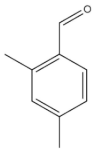
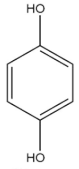
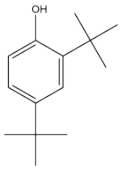
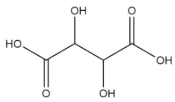
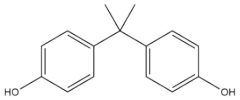
Compounds	Molecular formula	Rt (min)	Structure
[1] 3-Methylbutanoic acid	$C_5H_{10}O_2$	7.34	
[2] Phenol	C_6H_6O	7.65	
[3] 2,4-Dimethylbenzaldehyde	$C_9H_{10}O$	13.48	
[4] Hydroquinone	$C_6H_6O_2$	17.01	
[5] 2,4-Di-tert-butylphenol	$C_{14}H_{22}O$	18.02	
[6] Tartaric acid	$C_4H_6O_6$	19.35	
[7] Bisphenol A	$C_{15}H_{16}O_2$	25.98	

Table S2

Main ion concentrations in environmental water samples from Yitong River.

	Average concentration ($mg \cdot L^{-1}$)
Na^+	23.21
K^+	5.03
Ca^{2+}	52.85
Mg^{2+}	6.08
HCO_3^-	150.71
SO_4^{2-}	29.43
Cl^-	28.08
NO_3^-	19.18