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Characterization of biochars derived from different materials and their effects on microbial dechlorination of pentachlorophenol in a consortium

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Table S1 Electrochemical characteristics of the biochars used in this study

Biochar type	EC ($\mu s\ cm^{-1}$)	EAC ($\mu mol\ e^- g^{-1}$)	EDC ($\mu mol\ e^- g^{-1}$)	ETC ($\mu mol\ e^- g^{-1}$)
Rice husk	40.00±1.22	63.46±3.80	86.49±4.28	149.96±3.08
Bamboo	1.25±1.22	73.98±5.91	81.85±5.28	155.83±7.20
Caragana	$(2.22\pm0.53)\times10^6$	21.72±2.92	27.65±2.51	49.37±1.43
Garbage	$(1.04\pm0.03)\times10^3$	22.18±2.51	39.45±2.75	61.63±2.26

Notes: Electrical conductivity, EC; electron-accepting capacity, EAC; electron-donating capacity, EDC; electron transfer capacity, ETC. The EC, EAC, EDC, and ETC data show the mean values of three datasets.

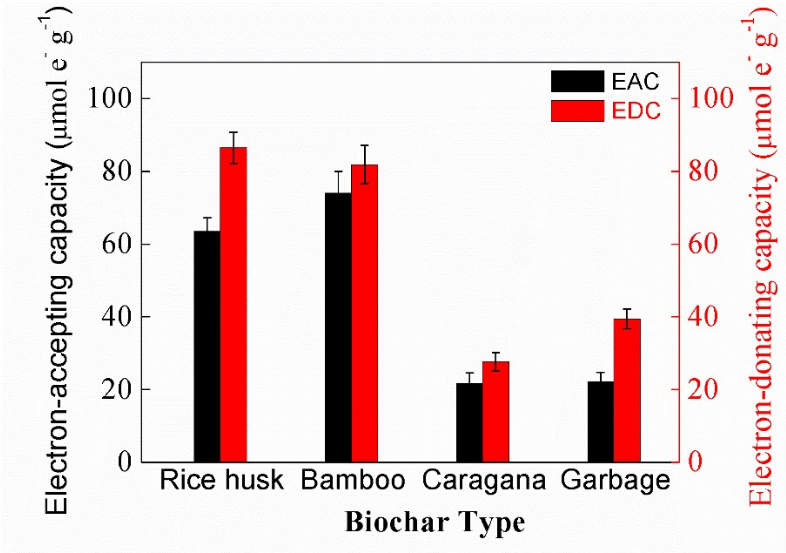

Fig. S1 Electron-accepting capacity (EAC) of biochars produced from four different raw materials at a potential of −0.7 V, and electron-donating capacity (EDC) at a potential of +0.5 V (vs. Ag/AgCl). The error bars show the difference of three data sets.

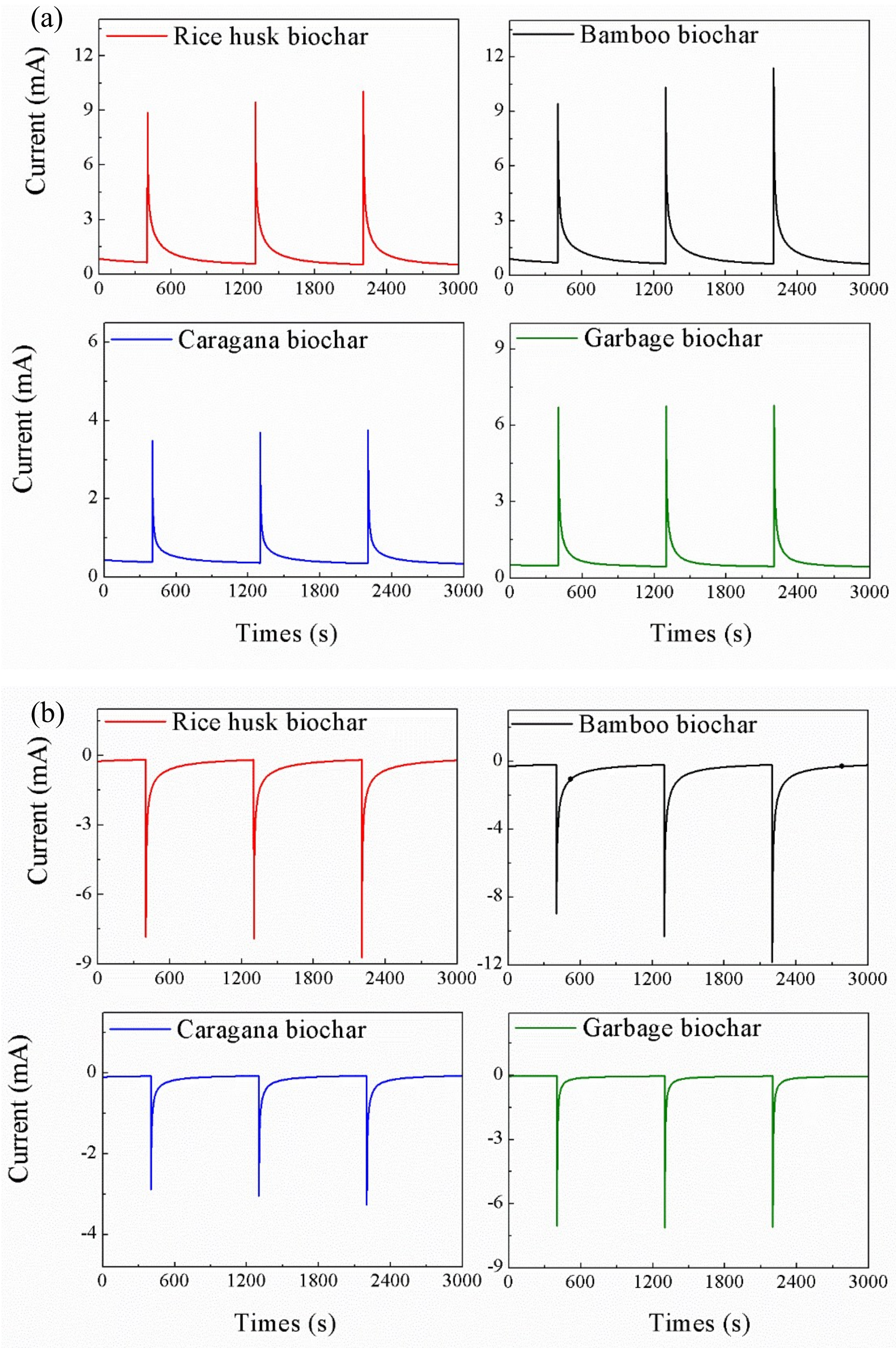

Fig. S2 Reductive and oxidative current responses to biochars produced from four different raw materials analyzed by electrochemical oxidation under +0.5 V (a) and electrochemical reduction under −0.7 V (b). The peak areas were used to calculate the EACs and EDCs of biochars.

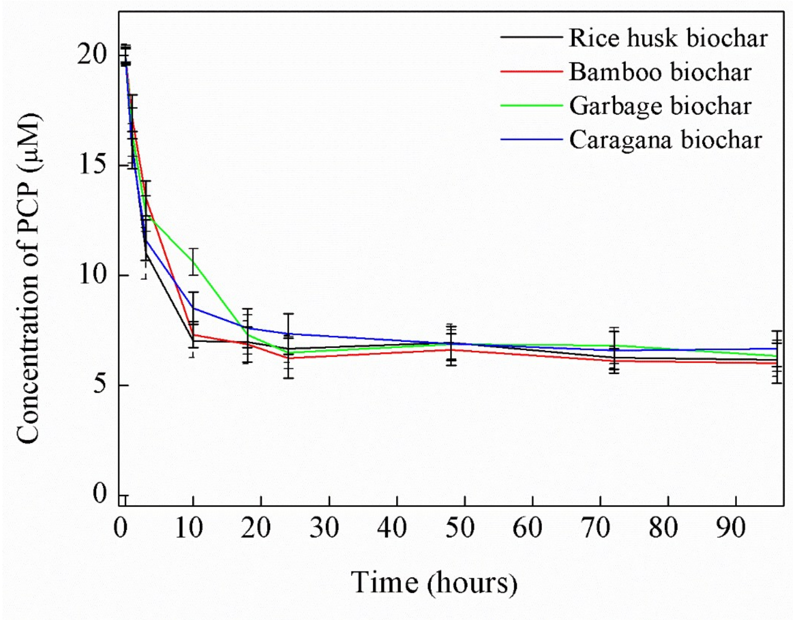

Fig. S3 Adsorption of PCP by different biochars. For this experiment, the concentrations of PCP in the aqueous phase in the presence of different biochars (10 g L^{-1}) were quantified by gas chromatograph–mass spectrometer.