Electronic Supplementary Information

Improved bioreduction of nitrobenzene by black carbon/biochar derived from crop residues

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Fig. S1. ¹³C cross-polarization magic angle spinning NMR spectra of biochar₃₀₀ and biochar₆₀₀. Asterisk refers to spinning sidebands.

Mass fraction	BC_w	biochar _w ^b	BC _c	biochar _c ^b	biochar ₃₀₀	biochar ₈₀₀
O(wt%) ^a	61.63	22.04	33.15	11.34	27.84	20.32
Ash(wt%)	15.39	8.24	9.97	8.04	7.56	10.62

Table S1. Oxygen and ash contents of BC and biochar samples.

a Oxygen content determined by difference.b Biocharw and biocharc were produced at 600°C.

samples determined by ¹³ C NMR.									
Moieties location	0-45	45-90	90- 145	145- 165	165-190	190-220			
	alkyl	O allerl C	aryl C	<i>O</i> -aryl	carboxyl/ester/q	ketone/quinone/			
	С			С	uinone C	aldehyde C			
biochar300	22.0	14.1	37.8	13.7	6.8	5.5			
biochar ₆₀₀	6.4	2.7	78.3	8.1	2.3	N.D. ^a			

Table S2. Composition of functional groups (in % of total C) in BC and biochar samples determined by ${}^{13}C$ NMR.

^a N.D., not detected.