

Supplementary information

Biochar enhanced microbial degradation of 17 β -estradiol

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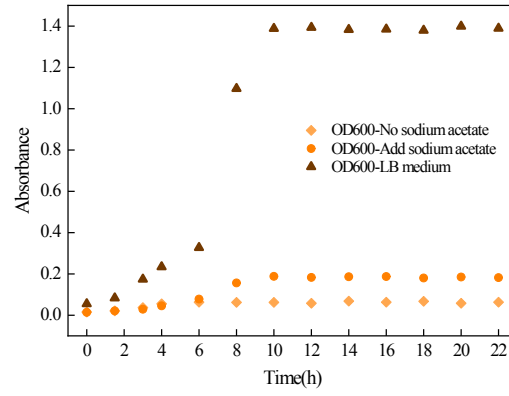


Fig. S1 The growth curves of microorganism cultured in inorganic salt medium, sodium formate inorganic medium and LB medium.

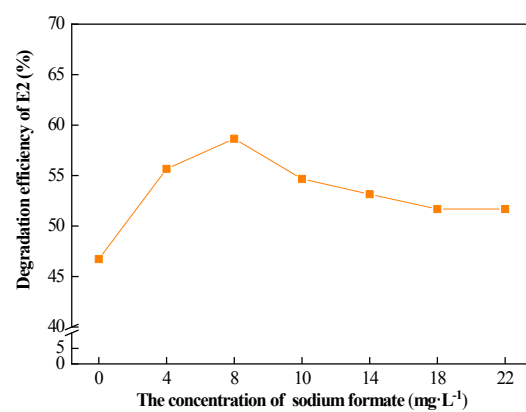


Fig. S2 Effects of sodium acetate on E2 microbial degradation.

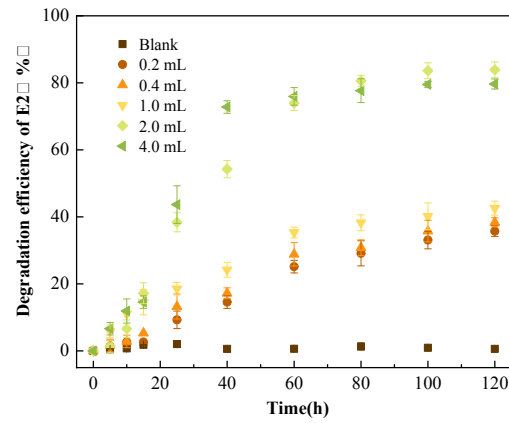


Fig. S3 The effect of initial concentration of strains on the reduction of E2 (1 mg L^{-1} E2 and 50 mg L^{-1} biochar). The experiments were performed under anaerobic conditions at 30°C for 120 h. Error bars represent standard deviation of the mean ($n=3$).

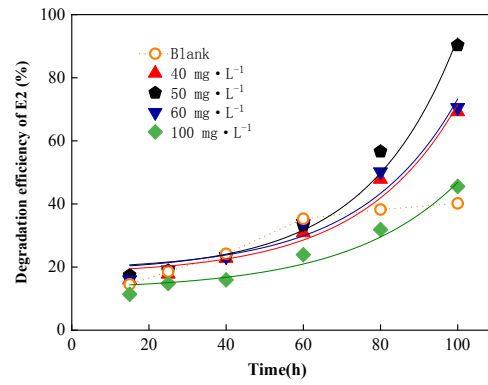


Fig. S4 The exponential fitting curve of biochar mediated microbial degradation of E2 (15-100 h) with 0.6×10^6 cells mL⁻¹ strains and 1 mg L⁻¹ E2. The experiments were performed under anaerobic conditions at 30 °C.

Table S1. Elemental composition, surface area and ash content of reed straw biochar used in the present study.

Sample	Elemental analysis						BET surface area (m ² /g)	Ash (wt %) ^a
	C	H	O	N	O/C	H/C		
B-200	39.22	21.83	33.72	0.93	0.55	0.53	1.89	2.79
B-400	64.71	7.75	19.15	1.98	0.30	0.16	5.83	5.42
B-500	71.59	2.98	15.93	1.75	0.22	0.04	7.92	6.89
B-700	85.34	1.04	9.79	0.62	0.07	0.01	108.30	7.37

^aRepresent the mass percentage of total ash (produced in a tube furnace) to the biochar.