



Fig. S1 The sketch and real product of CWs: (a) sketch (b) real product

Table S1 Condition of bacteria taxa in all treatments in Stage 1

system	nrfA									
	Phylum	Class	Order	Family	Genus	Phylum	Class	Order	Family	Genus
CK1	34	95	134	246	393	4	8	13	14	22
CW-0.2	32	81	123	199	312	4	8	14	14	23
CW-0.5	35	105	156	262	422	4	8	14	15	22
CW-0.8	27	73	128	201	298	4	8	13	15	21
CW-1	34	100	143	245	426	4	8	13	14	21

Table S2 Biodiversity indexes of bacteria in all treatments in Stage 1

system	V4 region				nrfA			
	chao1	ACE	simpson	shannon	chao1	ACE	simpson	shannon
CK1	2227.00	2227.00	0.99	9.37	1655.03	1655.03	0.98	7.90
CW-0.2	2214.00	2214.00	0.99	9.15	1260.37	1266.62	0.99	7.84
CW-0.5	2218.00	2218.00	0.99	9.03	1425.61	1454.61	0.99	8.27
CW-0.8	1930.00	1930.00	0.98	8.51	1260.04	1289.46	0.99	7.92
CW-1	2538.73	2730.60	0.90	7.21	1349.00	1349.00	0.99	8.40