Electronic Supplementary Material (ESI) for RSC Advances.

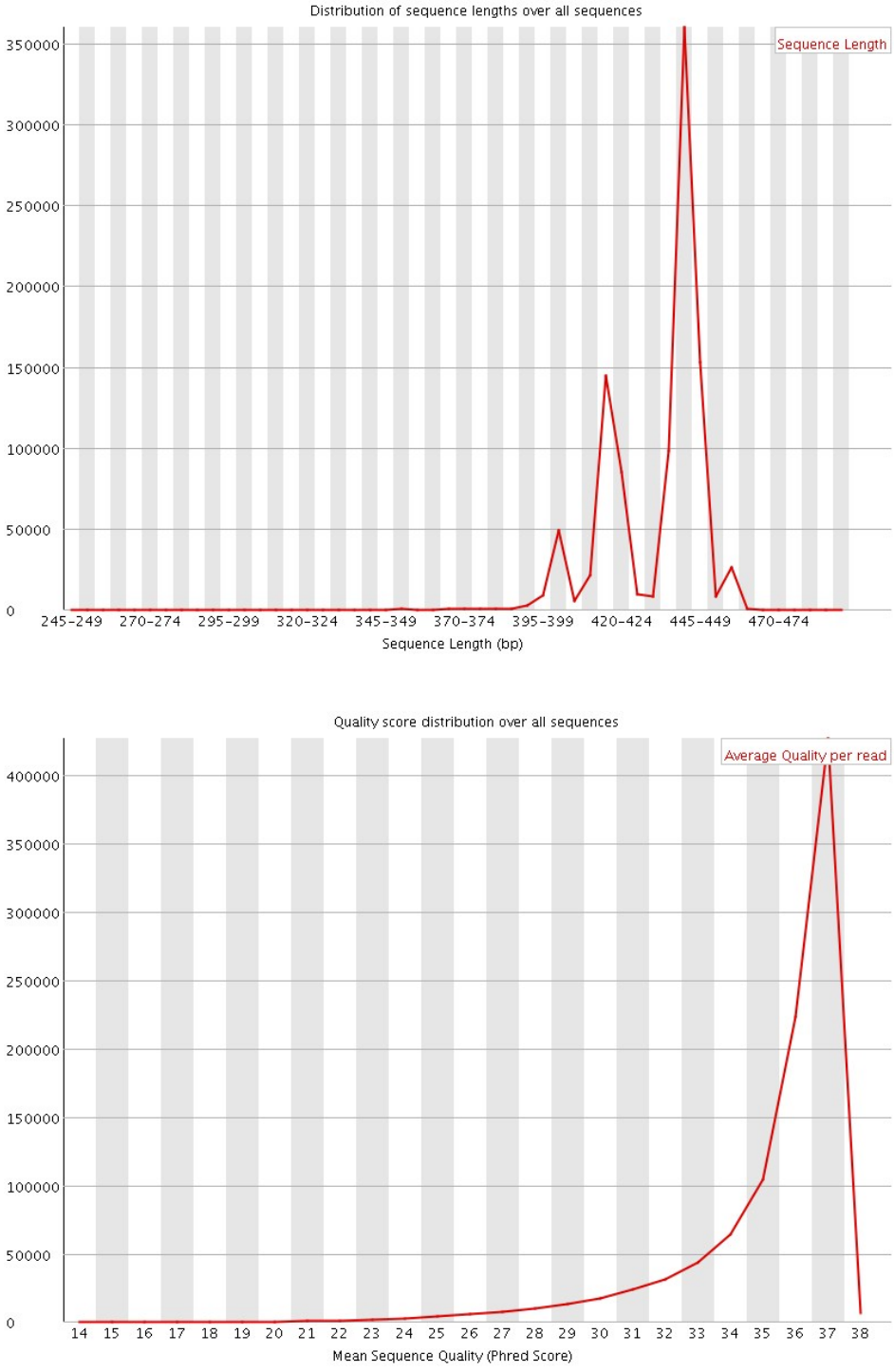

Fig. S1 The length and quality of the sequences

Table S1

Changes of function bacteria number after stimulated in production water P1

	HOB cells/mL	FMB cells/mL	NRB cells/mL	SRB cells/mL	TGB cells/mL
Before biostimulation	5×10^{2}	5×10^{3}	2×10^{2}	7×10^{2}	7×10^{3}
After biostimulation	2.5×10^{5}	7×10^{8}	7×10^{7}	1.3×10^{1}	2×10^{4}

Changes of function bacteria number after stimulated in production water P2

	HOB cells/mL	FMB cells/mL	NRB cells/mL	SRB cells/mL	TGB cells/mL
Before biostimulation	1.3×10^{3}	7×10^{4}	7×10^{4}	1.3×10^{3}	1.1×10^{3}
After biostimulation	1.1×10^{7}	2×10^{9}	1.1×10^{8}	0.5×10^{2}	3×10^{4}

Changes of function bacteria number after stimulated in production water IW

	HOB cells/mL	FMB cells/mL	NRB cells/mL	SRB cells/mL	TGB cells/mL
Before biostimulation	1.1×10^{2}	7×10^{2}	1.1×10^{3}	0.2×10^{2}	0.2×10^{1}
After biostimulation	5×10^{4}	2×10^{7}	1.1×10^{7}	0.9×10^{1}	0.5×10^{4}

Table S2 Component analysis of volatile fatty acid after biostimulation in production water P2

volatile fatty acid	content(mg/L)	volatile fatty acid	content(mg/L)
acetic acid	1078.32	butyrate	590.11
propionic acid	715.07	isovaleric acid	534.8
isobutyric acid	564.12	Valeric acid	713.2

Component analysis of volatile fatty acid after biostimulation in production water P1

volatile fatty acid	content(mg/L)	volatile fatty acid	content(mg/L)
acetic acid	1178.23	butyrate	487.51
propionic acid	635.21	isovaleric acid	474.72
isobutyric acid	524.15	Valeric acid	663.3

Component analysis of volatile fatty acid after biostimulation in production water IW

volatile fatty acid	content(mg/L)	volatile fatty acid	content(mg/L)
acetic acid	942.32	butyrate	478.24
propionic acid	426.26	isovaleric acid	323.63
isobutyric acid	316.32	Valeric acid	403.12