Supporting information

Bio-reduction of V(V) and the interaction mechanism by thermophilic hydrogen-producing bacteria

Xin Zheng^{a,1}, Bo Zhao^{a,1}, Chunguang Liu^{a, b,*}

 ^a School of Environmental Science and Engineering, China–America CRC for Environment & Health of Shandong Province, Shandong University, 72# Jimo Binhai Road, Qingdao, Shandong 266237, P.R. China
^b Guangdong Provincial Key Laboratory of Environmental Protection and Resources Utilization

^{*}Corresponding author: Tel: +86 150541873869,Fax.:+86053188364868

E-mail address: chunguangliu2013@sdu.edu.cn

¹ These two authors contributed equally to this work.

Fig.S1. Bio-reduction of V(V) by thermophilic hydrogen-producing bacteria with glucose (A) as substrate, respectively (Initial pH = 5.8, T=55 $^{\circ}$ C, 10 g/l glucose, V(V) 50 mg/l).

Fig.S2. Three-dimensional excitation-emission-matrix profiles and synchronous fluorescence spectra ($\Delta\lambda = 15$ nm and $\Delta\lambda = 60$ nm) of EPSs in the acetic acid-based hydrogen fermenter. Condition: Initial pH = 5.8, T=55 °C, 10 g/l acetic acid.

Table.S1 Alpha-diversity of microbial communities in inoculated sludge and fermenters (V(V)=100 mg/l).

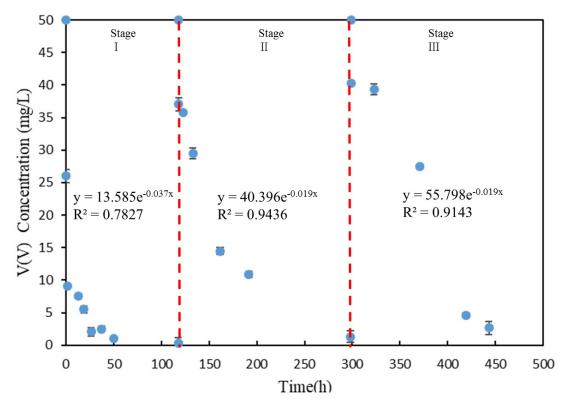


Fig. S1.

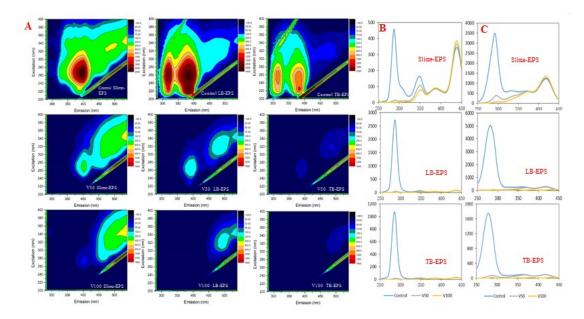


Fig. S2.

Table.S1

	Chao1	goods_coverage	observed_species	PD_whole_tree	shannon
Control	220.84	0.999	215	24.063	3.959
V	209.52	0.998	190	21.255	3.091