Overall process of using a valerate-dominant sludge hydrolysate to produce highquality polyhydroxyalkanoates (PHA) in a mixed culture

Jiuxiao Hao, Xiujin Wang, Hui Wang*

State Key Joint Laboratory of Environment Simulation and Pollution Control, School of

Environment, Tsinghua University, Beijing 100084, China

*Corresponding author. E-mail: wanghui@tsinghua.edu.cn

Figures

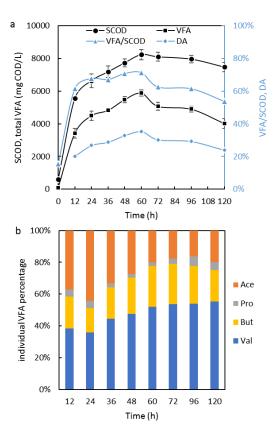


Figure S1. SCOD, total VFAs production (a) and the composition of individual VFA (b) during 5-day sludge thermophilic anaerobic fermentation. Ace: acetate; Pro: propionate; But: butyrate; Val: valerate. (bars = S.D., n = 3)

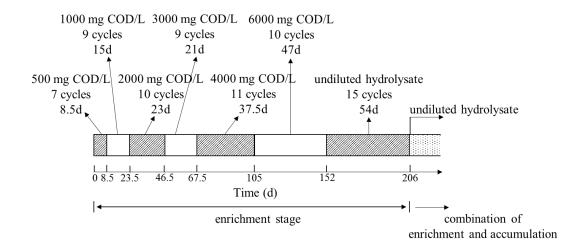


Figure S2. The whole process and timeline of enriching PHA-producing MMC fed by valerate-dominant sludge hydrolysate with increasing initial concentrations. After day 206, the PHAs product could be recovered from each cycle at the end of feast phase.

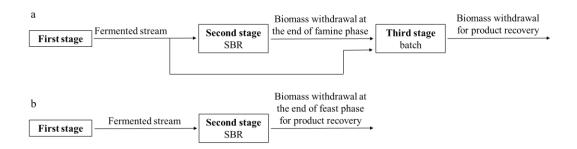


Figure S3. Comparison of conventional three-stage process (a) and two-stage process in this study (b) for PHAs production.