Supplementary Information for

Effect of L-tyrosine on aerobic sludge granulation and its stability

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Table. A.1 Operational conditions in both reactors during operation

Reactor	Control	Tyrosine
Temperature (^{0}C)	23±1	23±1
DO (mg/L)	6.5-8.2	5.5-8.2
PH	7.4-8.0	7.2-8.2
Tyrosine (mg/L)	0	6
Settling time (min)	5	5
Aeration time (min)	120	120
Total cycle time (h)	2.4	2.4
Air flow (L/min)	2	2

Table. A.2 The contents of synthetic stock solution

Components	**Concentration (g/L)**
Glucose	19.57
Sodium acetate	26.10
Yeast extract	9.78
NH_4Cl	4.16
K_2HPO_4	1.92
KH_2PO_4	0.72
$MgCl_2.6H_2O$	8.32
$CaCl_2$	5.20

Trace Solution (Table B.1)	2.50

Table. B.1 The contents of trace solution

Components	Concentration (g/L)
$FeCl_3.6H_2O$	15.0
H_3BO_3	1.5
$CuSO_4$	0.2
KI	0.3
$MnSO_4.H_20$	1.0
$(NH_4)_6Mo_7O_{24}.4H_2O$	0.4
$ZnSO_4.7H_2O$	1.2
$CoCl_2.6H_2O$	1.5

Table. A.3 The pollutants concentration and COD/N ratio set for each phase

Pollutant	Phase I	Phase II
COD (mg/L)	400	400
NH_4^+-N (mg/L)	100	400
COD/N ratio	4	1
Period (days)	1-59	60-120

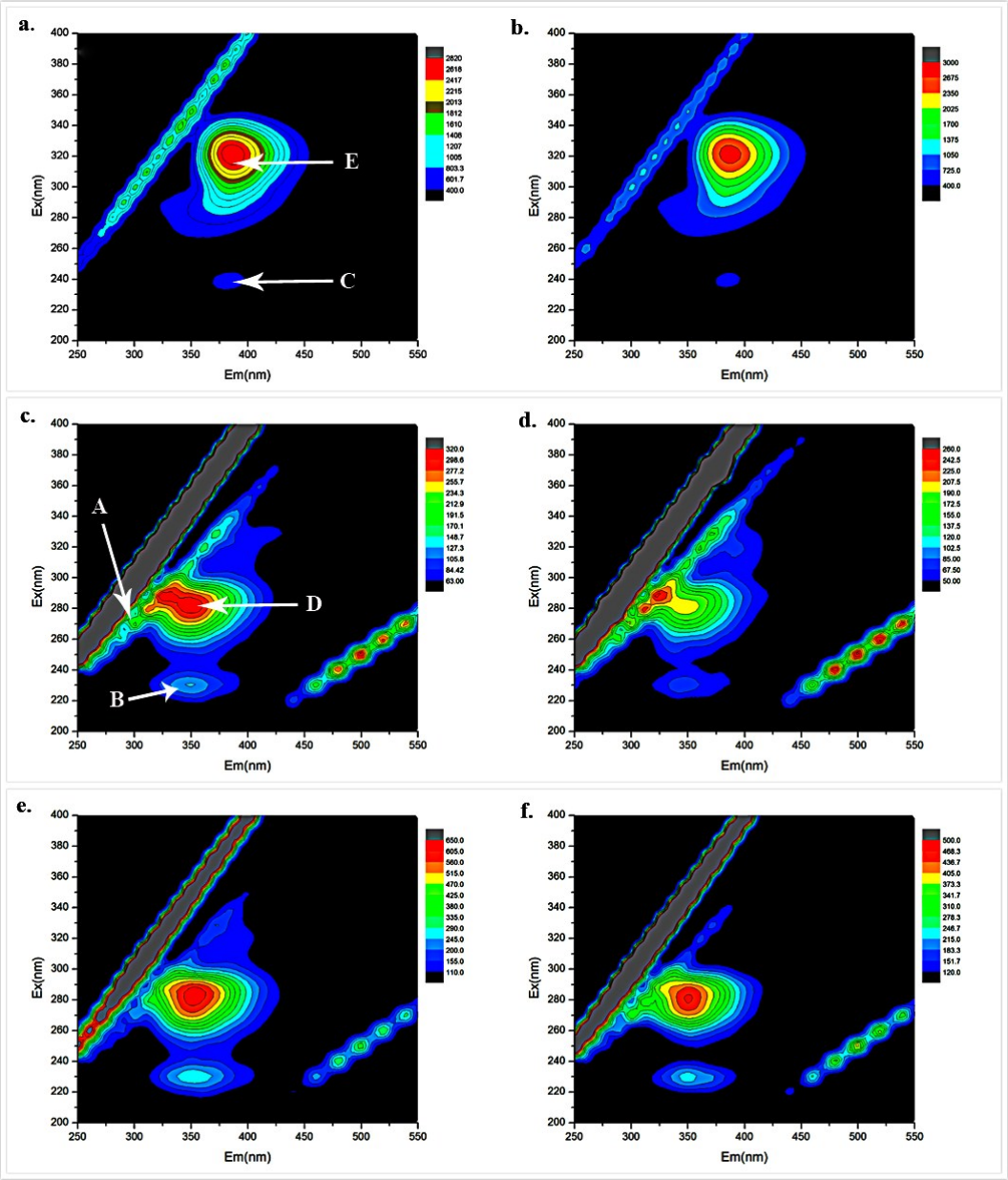

Fig. A.1 3D-EEM spectra of EPS in the granules of the control reactor at (a) 1st day, (c) 59th day, (e) 120th day and that of the testing reactor at (b) 1st day, (d) 59th day, and (f) 120th day

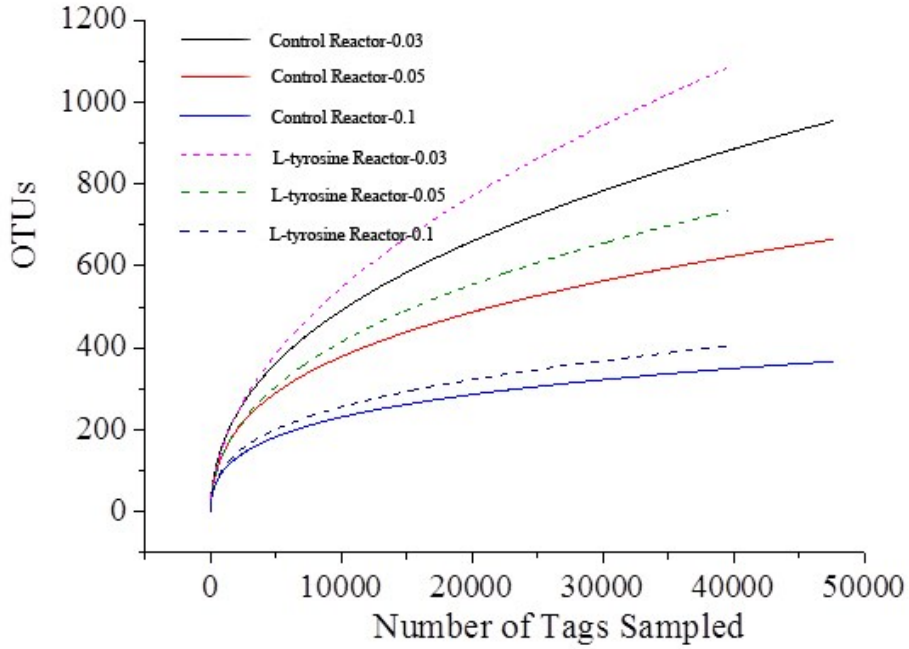

Fig. A.2 The rarefaction curves of microbial community in control and testing system