Supporting information

Intermittent electrical stimulation on biodegradation of pharmaceuticals and bacterial community changes

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This supplement provides additional information on the analysis methods and supporting results for the main paper, including 5 figures and 1 table.

Real photos of upflow anaerobic-aerobic-coupled bio-electrochemical reactors：

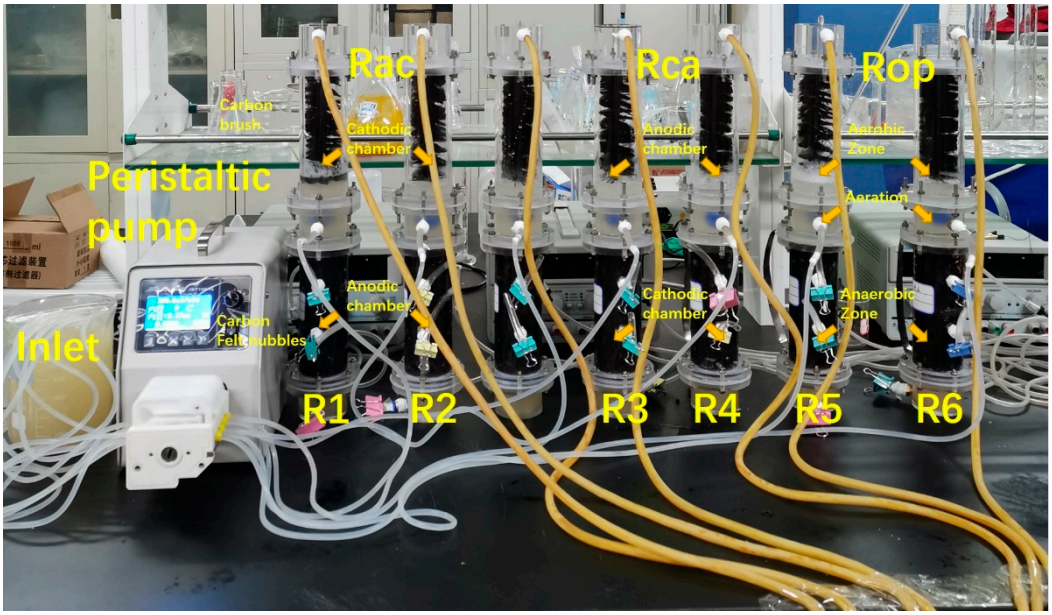
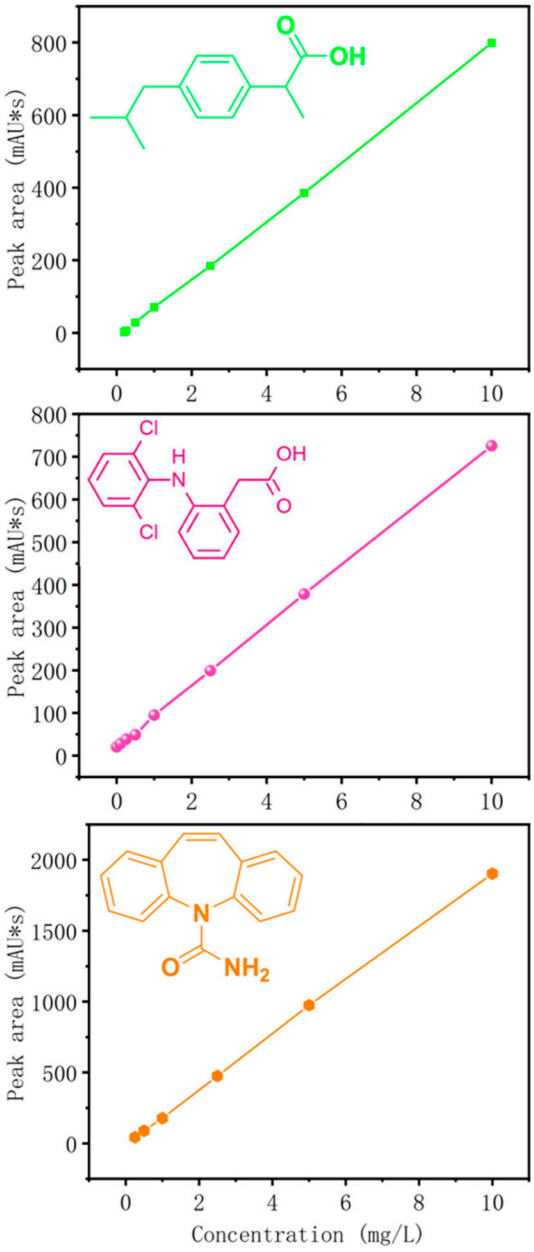


Figure S1. Real photos of up-flow anaerobic-aerobic-coupled bioelectrochemical reactors. (Rac: anaerobic anodic and aerobic cathodic chambers; Rca: anaerobic cathodic and aerobic anodic chambers; Rop: control reactor without applied voltage.)



Equation	y = a + b*x
Plot	Peak area
Weight	No Weighting
Intercept	-14.32699 ± 1.83411
Slope	81.01465 ± 0.4214
Residual Sum of Squares	69.75303
Pearson's r	0.99993
R-Square (COD)	0.99986
Adj. R-Square	0.99984

Equation	y = a + b*x
Plot	Peak area
Weight	No Weighting
Intercept	20.50242 ± 1.70502
Slope	70.74271 ± 0.41884
Residual Sum of Squares	90.27771
Pearson's r	0.99989
R-Square (COD)	0.99979
Adj. R-Square	0.99975

Equation	y = a + b*x
Plot	Peak area
Weight	No Weighting
Intercept	-4.53936 ± 6.95625
Slope	191.67234 ± 1.47993
Residual Sum of Squares	620.2781
Pearson's r	0.99988
R-Square (COD)	0.99976
Adj. R-Square	0.9997

Figure S2. The calibration curves of three pharmaceuticals, the regression coefficients were R^2>0.99.

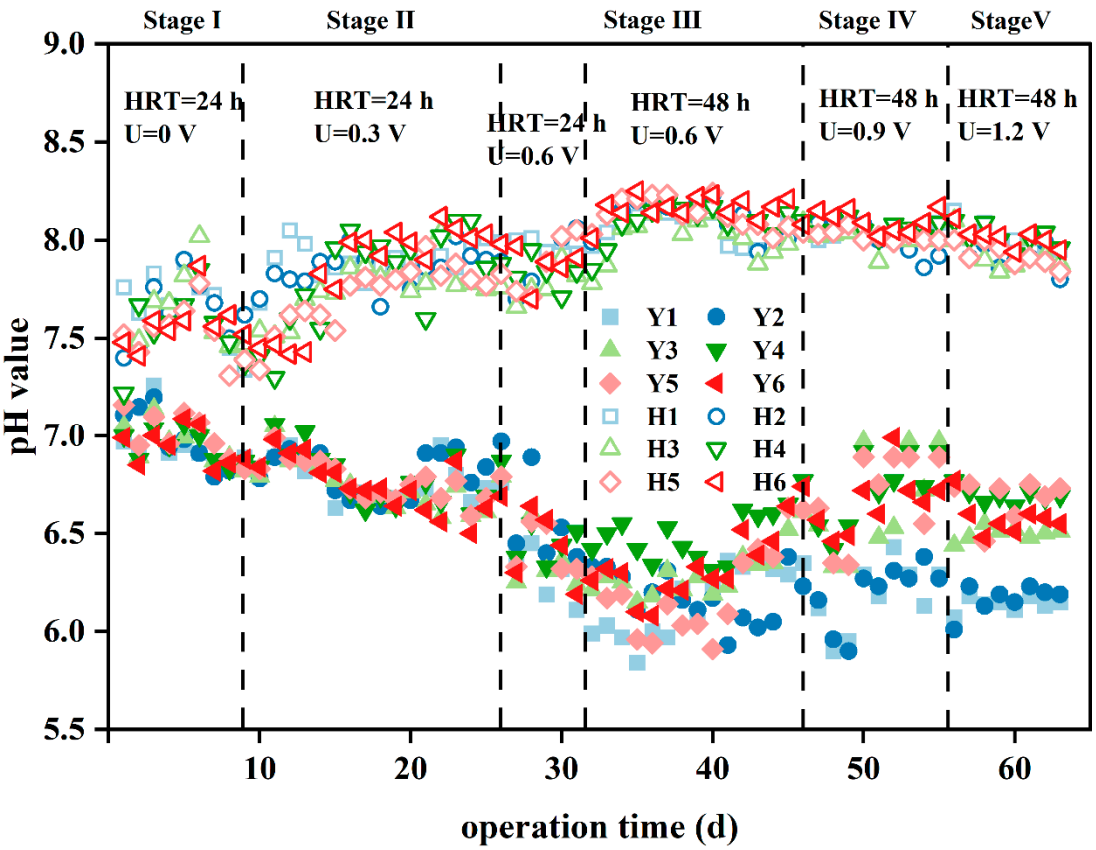


Figure S3. The pH values of the six reactors (Y represented the anaerobic zone while H represented the aerobic zone).

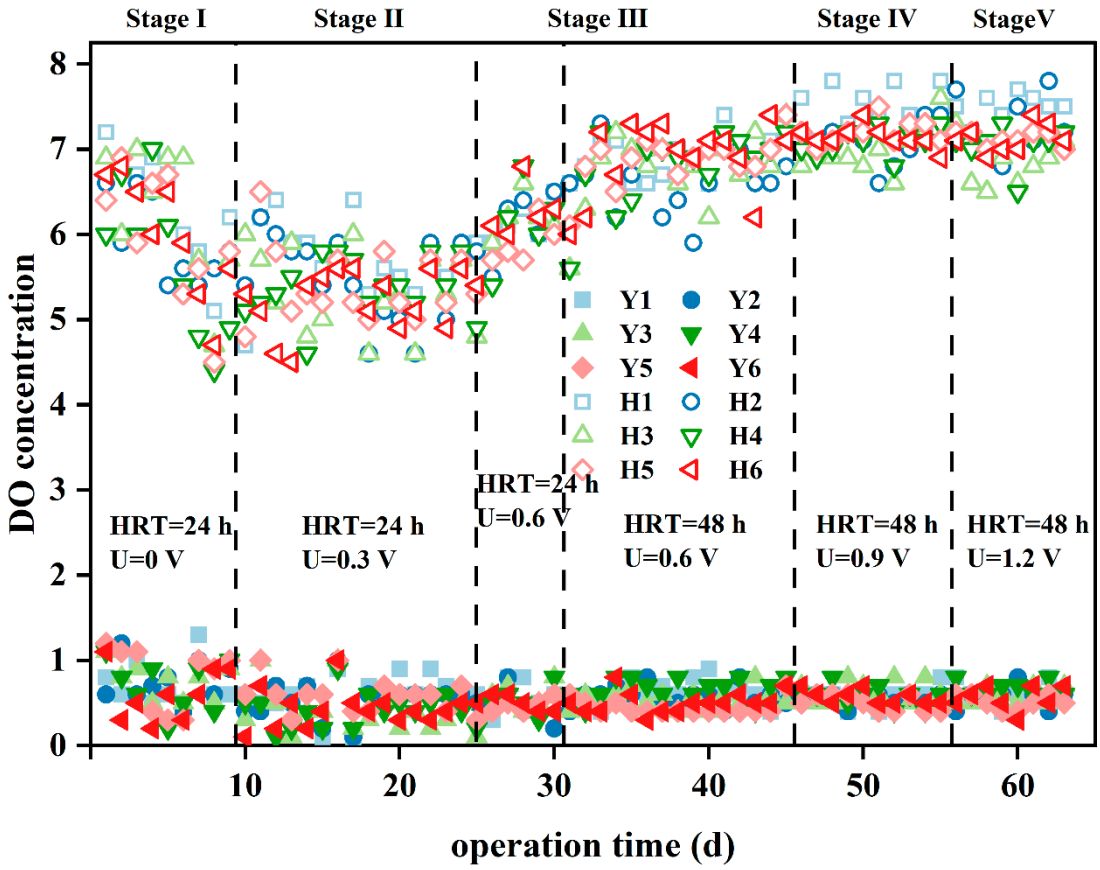


Figure S4. The DO concentrations of the six reactors (Y represented the anaerobic zone while H represented the aerobic zone).

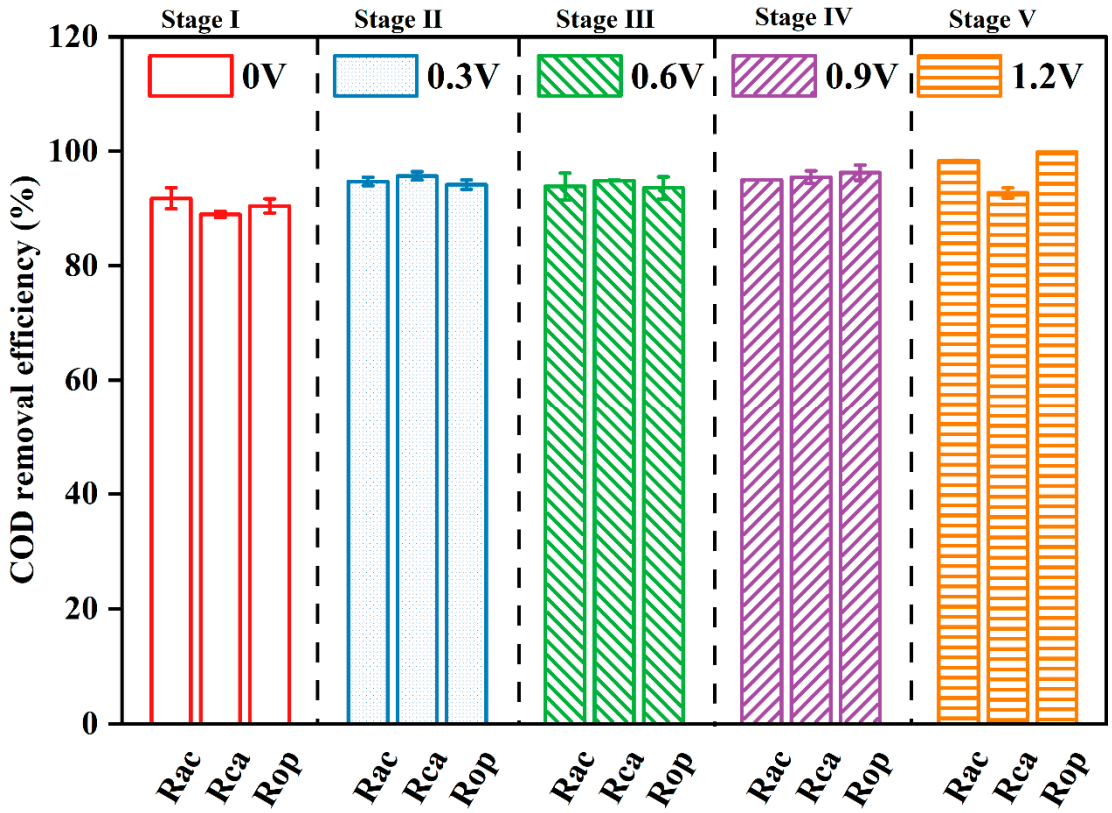


Figure S5. The total COD efficiencies of Rac, Rca, and Rop.

Table S1

Sample ID	Sampling site	Coverage
S.Ae	Sludge_aerobic	0.9994
Rac.Ae.C	Rac_aerobic cathode	0.9990
Rca.Ae.A	Rca_aerobic anode	0.9993
Rop.Ae.O	Rop_aerobic with open circuit	0.9993
S.An	Sludge_anaerobic	0.9989
Rac.An.A	Rac_anaerobic anode	0.9993
Rca.An.C	Rca_aerobic cathode	0.9993
Rop.An.O	Rop_anaerobic with open circuit	0.9993

The Coverage values of samples.