

Supporting Information

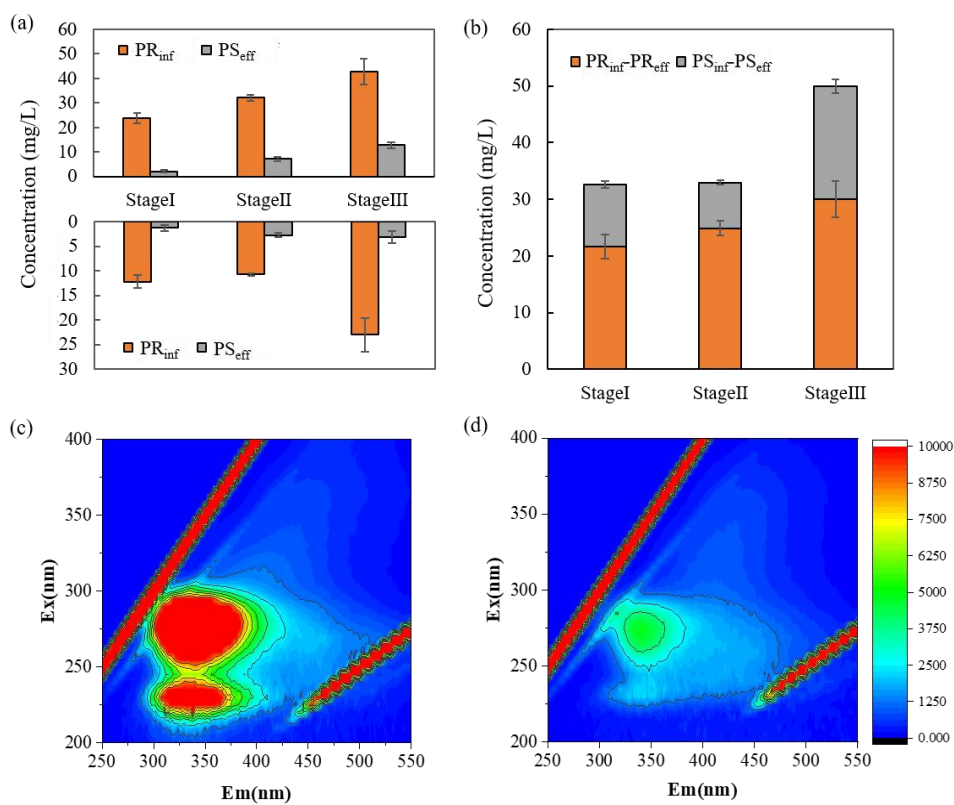


Fig. S1 (a) The concentration of protein and polysaccharide in influent and effluent of the PDA reactor at each stage. (b) Changes in protein and polysaccharide in the PDA reactor at each stage. (c) Fluorescence spectra of organic matter in influent at stage II. (d) Fluorescence spectra of organic matter in effluent at stage II.

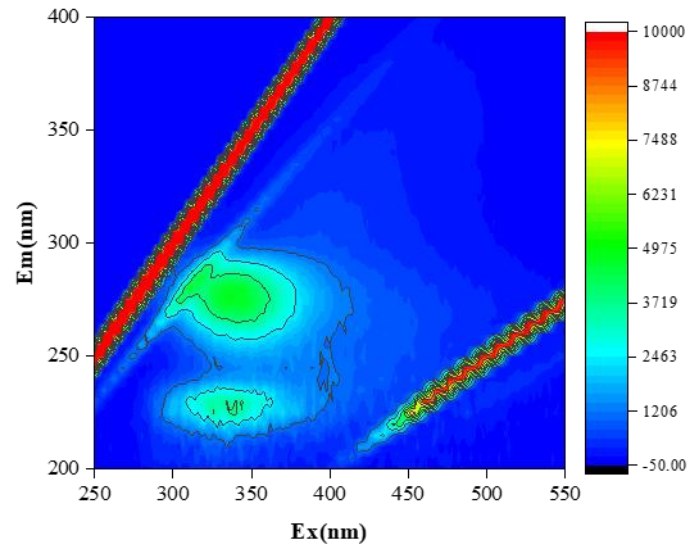


Fig. S2 Fluorescence spectra of organic matter in effluent at stage III.

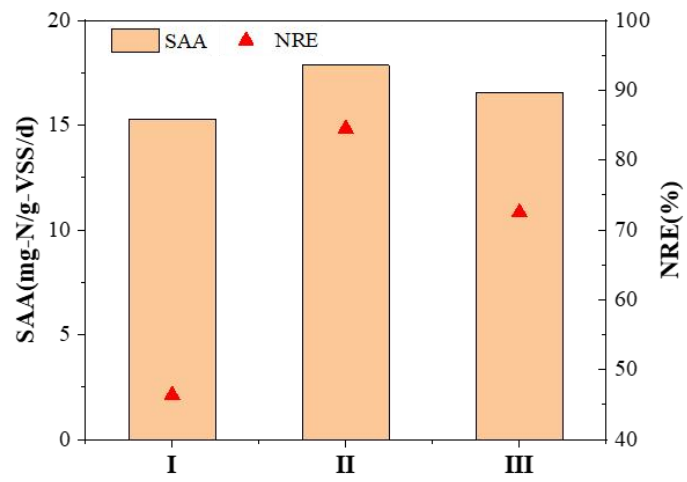


Fig. S3 The change of SAA and total nitrogen removal efficiency in different stages.

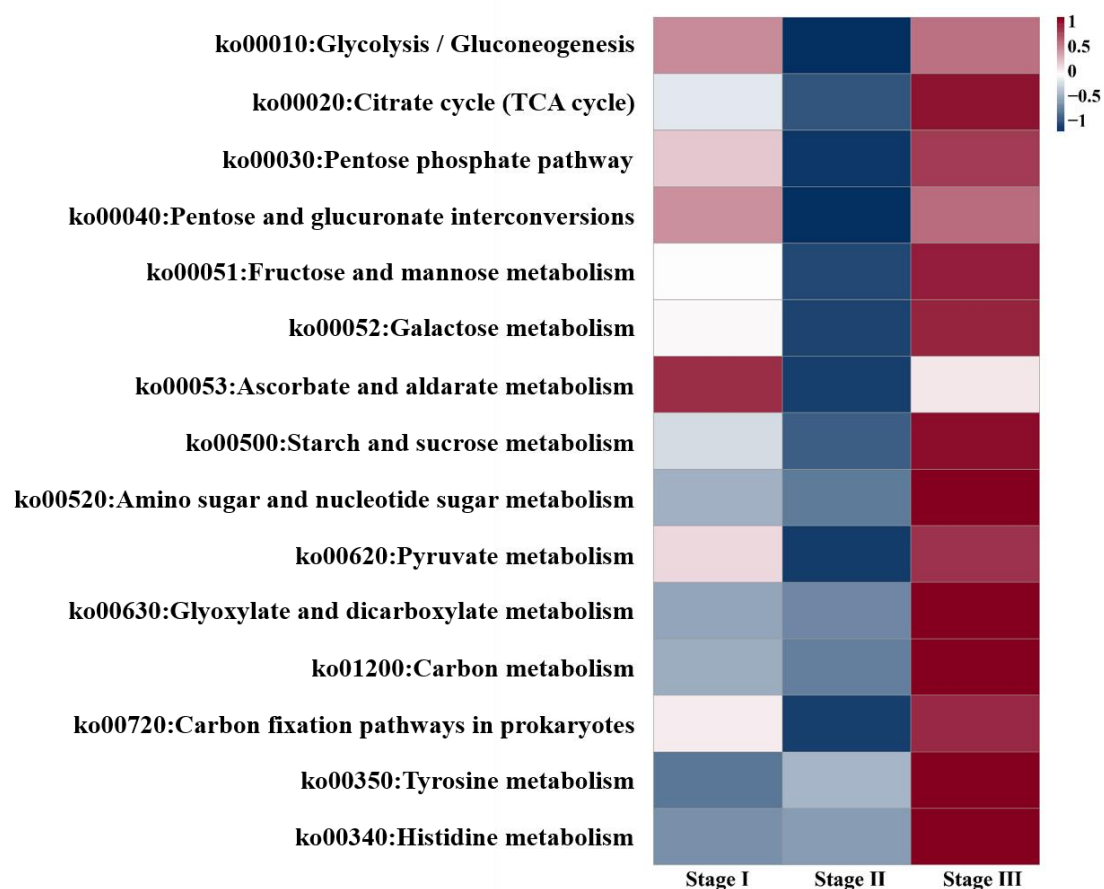


Fig. S4 The pathways involved in carbohydrate metabolism at different stages.

Table S1 component of synthetic municipal wastewater.

Components	Concentration (mg/L)	Components	Concentration (mg/L)
Urea	88.2	MgCl ₂ ·6H ₂ O	5.0
Sodium acetate	220.6	ZnSO ₄ ·7H ₂ O	0.215
Yeast extract	56.8	CoCl ₂ ·6H ₂ O	0.12
Beef extract	64.6	MnCl ₂ ·4H ₂ O	0.495
Peptone	56.8	CuSO ₄ ·5H ₂ O	0.125
Glucose	220.6	(NH ₄) ₆ Mo ₇ O ₂₄ ·4H ₂ O	0.089
NaHCO ₃	800	NiCl ₂ ·6H ₂ O	0.095
KH ₂ PO ₄	21.9	Na ₂ SeO ₄	0.078
FeSO ₄ ·7H ₂ O	5.0		