

Supplementary Material

Effects of bicarbonate addition and N:P ratio on microalgae growth and resource recovery from domestic wastewater

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Table S1. Characteristics of the inoculum added in each PBR operation.

		Stage 1				Stage 2		Stage 3
	Unit	OPR 1	OPR 2	OPR 3	OPR 4	OPR 5	OPR 6	OPR 7
Dominant microalgae specie	-	<i>P. pectinatus</i>	<i>P. pectinatus</i>	<i>P. pectinatus</i>	<i>P. pectinatus</i>	<i>P. pectinatus</i>	<i>P. pectinatus</i>	<i>P. pectinatus</i>
Cell Density	10 ⁵ cells·mL ⁻¹	1.32 ± 0.01	1.12 ± 0.07	1.31 ± 0.11	-	-	0.29 ± 0.02	9.78 ± 0.81
Cell Biovolume	x 10 µm ³	71.49 ± 44.80	107.53 ± 47.00	90.59 ± 44.80	-	-	38.51 ± 13.80	4.92 ± 26.50
OD₅₃₀	-	1.55 ± 0.01	0.89 ± 0.01	0.80 ± 0.01	0.49 ± 0.01	1.08 ± 0.01	0.40 ± 0.01	0.79 ± 0.01
OD₆₈₀	-	1.93 ± 0.02	0.94 ± 0.02	0.93 ± 0.01	0.57 ± 0.01	1.46 ± 0.01	0.45 ± 0.02	0.94 ± 0.01
OD₇₅₀	-	1.25 ± 0.01	0.71 ± 0.01	0.67 ± 0.00	0.41 ± 0.01	0.91 ± 0.02	0.31 ± 0.01	0.61 ± 0.01
OD₆₈₀/OD₅₃₀	-	1.25 ± 0.01	1.05 ± 0.01	1.16 ± 0.01	1.20 ± 0.01	1.35 ± 0.01	1.13 ± 0.01	1.19 ± 0.01
DW	g·L ⁻¹	0.93 ± 0.12	0.52 ± 0.09	0.60 ± 0.13	0.48 ± 0.08	0.66 ± 0.05	0.27 ± 0.07	-

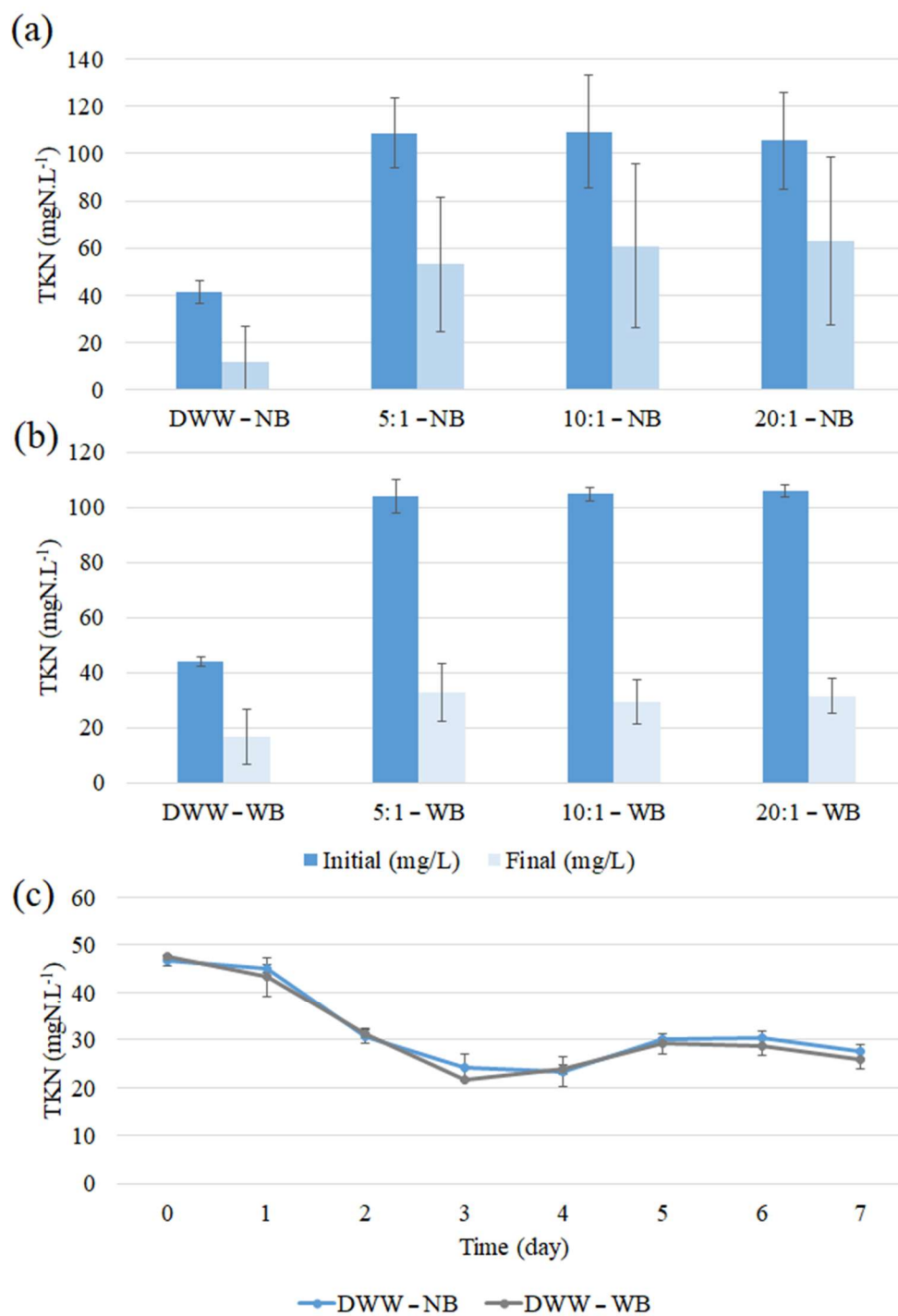


Fig. S1. Total Kjeldhal Nitrogen (TKN) concentrations during the operations of (a) stages 1 (without bicarbonate addition), (b) stage 2 (with bicarbonate addition), and (c) stage 3 (with and without bicarbonate addition). The mean and standard deviation of triplicate samples are shown.

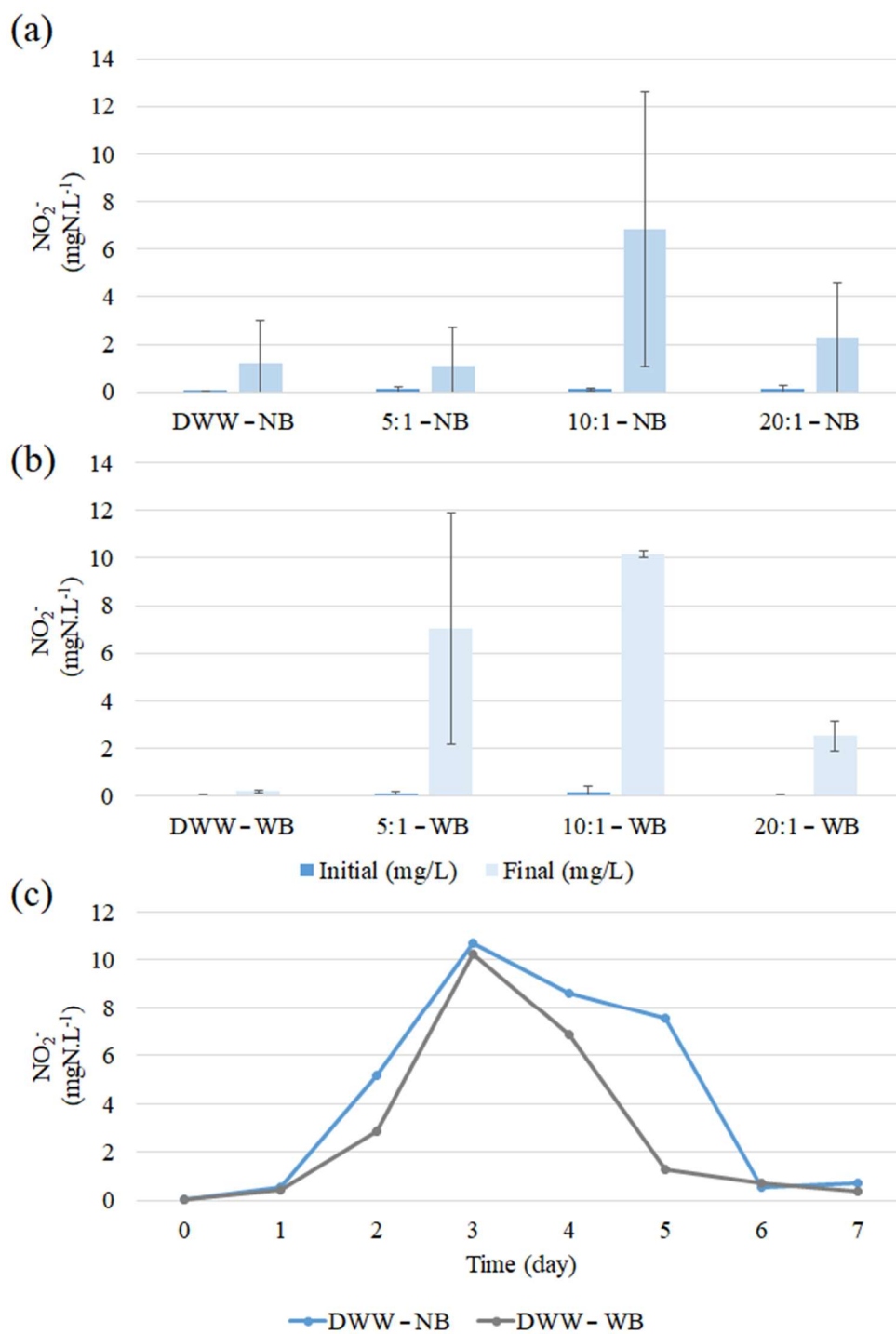


Fig. S2. Nitrite (NO_2^-) concentrations during the operations of (a) stages 1 (without bicarbonate addition), (b) stage 2 (with bicarbonate addition), and (c) stage 3 (with and without bicarbonate addition). The mean and standard deviation of triplicate samples are shown.