

Parameters	Low pH reactor (pH6.5)				
Time	Acclimatization cycle	0 h	24 h	48 h	72 h
pH	7.36	7.00	6.26	6.28	6.46
EC, $\mu\text{S/cm}$	1138	1232	1370	1356	1346
Temperature, $^{\circ}\text{C}$	21.8	21.8	22.1	19.6	22.7
TN, mg/l	38	41	41	45	40
NH4-N, mg/l	1.44	1.36	7.35	9.35	10.50
NO3-N, mg/l	26.27	27.35	26.53	22.07	18.98
NO2-N, mg/l	2.067	0.176	0.156	0.158	0.957
TP, mg/l	10.06	12.52	16.86	25.06	21.32
PO4, mg/l	4.70	5.12	13.14	17.64	18.50
COD, mg/l	93	130	137	170	80
TOC, mg/l	17.62	15.62	18.51	20.69	20.97
IC, mg/l	20.53	6.12	1.51	2.05	3.04
TC, mg/l	38.15	21.75	20.01	22.73	24.01
SVI30, ml/g	87.78	81.73	94.15	100.32	107.25
SDI30, g/ml	1.14	1.22	1.06	1.03	0.99
SVI5, ml/g	221.46	209.67	224.61	256.75	230.01
DO, mg/l	7.66	7.95	8.30	8.43	8.27

Parameters	High pH reactor (pH8.5)				
Time	Acclimatization cycle	0 h	24 h	48 h	72 h
pH	7.50	7.77	8.00	7.98	7.97
EC, $\mu\text{S/cm}$	1144	1212	1308	1309	1322
Temperature, $^{\circ}\text{C}$	22.0	21.9	22.2	19.4	22.7
TN, mg/l	40	39	41	43	45
NH4-N, mg/l	1.92	0.85	0.60	0.60	0.66
NO3-N, mg/l	28.97	26.20	31.73	23.13	25.03
NO2-N, mg/l	2.198	0.075	0.052	0.045	0.077
TP, mg/l	7	6.06	8.24	11.34	15.62
PO4, mg/l	3.1	3.12	5.92	9.48	13.6
COD, mg/l	80	68	60	58	60
TOC, mg/l	16.26	15.08	15.42	15.14	15.09
IC, mg/l	21.22	26.75	35.12	35.83	36.52
TC, mg/l	37.48	41.83	50.54	50.97	51.61
SVI30, ml/g	90.09	85.18	88.35	88.42	90.15
SDI30, g/ml	1.11	1.18	1.14	1.14	1.12
SVI5, ml/g	226.92	237.07	235.29	245.77	214.71
DO, mg/l	7.75	8.21	8.43	8.37	8.46

Significant	t-test pH	
	R1	R2
Mean	6.67266667	7.844667
Variance	0.238207778	0.045842
Observations	5	5
Hypothesized Mean	0	
df	5	
t Stat	-4.917169929	
P(T<=t) one-tail	0.002204149	
t Critical one-tail	2.015048373	
P(T<=t) two-tail	0.004408298	
t Critical two-tail	2.570581836	

not significant	t-test TP	
	R1	R2
Mean	17.164	9.652
Variance	37.93628	15.09892
Observations	5	5
Hypothesized Mean	0	
df	7	
t Stat	2.306526645	
P(T<=t) one-tail	0.027232396	
t Critical one-tail	1.894578605	
P(T<=t) two-tail	0.054464793	
t Critical two-tail	2.364624252	

not significant	t-test SVI30	
	R1	R2
Mean	94.24436455	88.43738
Variance	101.134729	4.074907
Observations	5	5
Hypothesized Mean	0	
df	4	
t Stat	1.265924657	
P(T<=t) one-tail	0.13712451	
t Critical one-tail	2.131846786	
P(T<=t) two-tail	0.27424902	
t Critical two-tail	2.776445105	

not significant	t-test EC	
	R1	R2
Mean	1288.267	1259
Variance	10119.69	6103.556
Observations	5	5
Hypothesized Mean	0	
df	8	
t Stat	0.513794	
P(T<=t) on	0.310641	
t Critical on	1.859548	
P(T<=t) tw	0.621282	
t Critical tw	2.306004	

not significant	t-test PO4	
	R1	R2
Mean	11.82	7.044
Variance	43.9554	20.28288
Observations	5	5
Hypothesized Mean	0	
df	7	
t Stat	1.332454	
P(T<=t) on	0.112225	
t Critical on	1.894579	
P(T<=t) tw	0.224449	
t Critical tw	2.364624	

not significant	t-test SVI30	
	R1	R2
Mean	228.5012	231.9513
Variance	304.8912	137.7344
Observations	5	5
Hypothesized Mean	0	
df	7	
t Stat	-0.36669	
P(T<=t) on	0.362342	
t Critical on	1.894579	
P(T<=t) tw	0.724684	
t Critical tw	2.364624	

not significant	t-test NH4	
	R1	R2
Mean	6.000667	0.926667
Variance	18.9068	0.316961
Observations	5	5
Hypothesized Mean	0	
df	4	
t Stat	2.587714	
P(T<=t) one-tail	0.030415	
t Critical one-tail	2.131847	
P(T<=t) two-tail	0.06083	
t Critical two-tail	2.776445	

Significant	t-test COD	
	R1	R2
Mean	121.9	65.13333
Variance	1306.8	85.47778
Observations	5	5
Hypothesized Mean	0	
df	5	
t Stat	3.401852	
P(T<=t) one-tail	0.009606	
t Critical one-tail	2.015048	
P(T<=t) two-tail	0.019212	
t Critical two-tail	2.570582	

not significant	t-test TN	
	Variable 1	Variable 2
Mean	41.13333	41.53333
Variance	6.033333	5.811111
Observations	5	5
Hypothesized Mean	0	
df	8	
t Stat	-0.25989	
P(T<=t) one-tail	0.400756	
t Critical one-tail	1.859548	
P(T<=t) two-tail	0.801513	
t Critical two-tail	2.306004	

not significant	t-test NO3	
	R1	R2
Mean	24.24	27.01333
Variance	12.84869	11.43256
Observations	5	5
Hypothesized Mean	0	
df	8	
t Stat	-1.2585	
P(T<=t) on	0.121848	
t Critical on	1.859548	
P(T<=t) tw	0.243697	
t Critical tw	2.306004	

Significant	t-test TOC	
	R1	R2
Mean	18.68133	15.39867
Variance	4.945873	0.251188
Observations	5	5
Hypothesized Mean	0	
df	4	
t Stat	3.21983	
P(T<=t) on	0.016143	
t Critical on	2.131847	
P(T<=t) tw	0.032286	
t Critical tw	2.776445	

not significant	t-test NO2	
	R1	R2
Mean	0.702733	0.489267
Variance	0.699516	0.912265
Observations	5	5
Hypothesized Mean	0	
df	8	
t Stat	0.375978	
P(T<=t) on	0.358354	
t Critical on	1.859548	
P(T<=t) tw	0.716708	
t Critical tw	2.306004	

Significant	t-test IC	
	R1	R2
Mean	6.649333	31.08833
Variance	63.41586	46.13919
Observations	5	5
Hypothesized Mean	0	
df	8	
t Stat	-5.22098	
P(T<=t) on	0.000401	
t Critical on	1.859548	
P(T<=t) tw	0.000802	
t Critical tw	2.306004	