

# 附錄一

二十種有機物毒性試驗  
原 始 數 據



Toxicant: Methylene chloride

Mean cell volume ( $\mu\text{m}^3$ ): 40.76

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.61	6.88	215600.00	6.27	1.33	1.00	0.000	0.000	0.000
291.35	1.12	1.77	30100.00	0.65	0.35	0.26	0.739	0.925	0.896
97.11	0.97	2.09	39800.00	1.12	0.49	0.37	0.634	0.876	0.821
79.46	0.78	2.37	46600.00	1.59	0.57	0.43	0.575	0.842	0.746
52.97	0.73	3.55	65300.00	2.82	0.74	0.55	0.448	0.749	0.550
35.31	0.75	5.01	122300.00	4.26	1.05	0.79	0.213	0.465	0.321
17.65	0.76	6.13	169300.00	5.37	1.21	0.91	0.091	0.231	0.144
Control	0.85	7.31	236500.00	6.46	1.38	1.00	0.000	0.000	0.000
291.35	1.26	1.87	29500.00	0.61	0.34	0.25	0.755	0.935	0.906
97.11	0.95	2.13	34600.00	1.18	0.42	0.30	0.697	0.912	0.817
79.46	0.85	2.46	46700.00	1.61	0.57	0.41	0.588	0.857	0.751
52.97	0.78	3.86	68700.00	3.08	0.76	0.55	0.448	0.758	0.523
35.31	0.69	5.16	135600.00	4.47	1.10	0.80	0.202	0.456	0.308
17.65	0.83	6.33	180300.00	5.50	1.24	0.90	0.098	0.254	0.149
Control	0.50	7.54	254500.00	7.04	1.42	1.00	0.000	0.000	0.000
291.35	0.68	1.73	29900.00	1.05	0.34	0.24	0.756	0.938	0.851
97.11	0.67	1.91	36800.00	1.24	0.45	0.32	0.683	0.909	0.824
79.46	0.54	2.11	48800.00	1.57	0.59	0.42	0.583	0.859	0.777
52.97	0.56	3.85	71500.00	3.29	0.78	0.55	0.448	0.764	0.533
35.31	0.68	5.15	136500.00	4.47	1.10	0.78	0.220	0.493	0.365
17.65	0.72	6.33	190300.00	5.61	1.27	0.90	0.103	0.268	0.203
Control	0.65	7.24	235533.33	6.59	1.38	1.00	0.000	0.000	0.000
291.35	1.02	1.79	29833.33	0.77	0.34	0.25	0.750	0.933	0.883
97.11	0.86	2.04	37066.67	1.18	0.45	0.33	0.671	0.900	0.821
79.46	0.72	2.31	47366.67	1.59	0.57	0.42	0.582	0.853	0.759
52.97	0.69	3.75	68500.00	3.06	0.76	0.55	0.448	0.757	0.535
35.31	0.71	5.11	131466.67	4.40	1.08	0.79	0.212	0.472	0.332
17.65	0.77	6.26	179966.67	5.49	1.24	0.90	0.098	0.252	0.166

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: Chloroform

Mean cell volume ( $\mu\text{m}^3$ ): 39.68

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.75	8.63	291200.00	7.88	1.48	1.00	0.000	0.000	0.000
348.93	1.11	1.47	17500.00	0.36	0.08	0.05	0.948	0.991	0.954
249.24	1.11	2.29	28300.00	1.18	0.32	0.21	0.786	0.952	0.850
99.69	0.73	3.16	53200.00	2.43	0.63	0.43	0.573	0.862	0.692
74.77	0.69	4.13	72300.00	3.44	0.79	0.53	0.470	0.793	0.563
34.89	0.57	6.57	176500.00	6.00	1.23	0.83	0.169	0.415	0.239
4.98	0.47	7.32	216500.00	6.85	1.33	0.90	0.100	0.270	0.131
Control	0.41	8.41	256300.00	8.00	1.42	1.00	0.000	0.000	0.000
348.93	1.02	1.44	17800.00	0.42	0.09	0.06	0.940	0.988	0.948
249.24	0.95	2.11	29000.00	1.16	0.33	0.23	0.768	0.942	0.855
99.69	0.69	3.16	52900.00	2.47	0.63	0.44	0.556	0.843	0.691
74.77	0.68	4.11	71900.00	3.43	0.78	0.55	0.448	0.764	0.571
34.89	0.77	6.76	135700.00	5.99	1.10	0.78	0.224	0.500	0.251
4.98	0.95	7.99	199800.00	7.04	1.29	0.91	0.088	0.234	0.120
Control	0.48	8.16	234500.00	7.68	1.37	1.00	0.000	0.000	0.000
348.93	0.65	0.98	16600.00	0.33	0.05	0.04	0.963	0.993	0.957
249.24	0.66	1.97	26500.00	1.31	0.28	0.21	0.793	0.948	0.829
99.69	0.60	2.99	51500.00	2.39	0.62	0.45	0.551	0.834	0.689
74.77	0.72	4.53	69800.00	3.81	0.77	0.56	0.441	0.750	0.504
34.89	0.70	6.18	123900.00	5.48	1.06	0.77	0.232	0.504	0.286
4.98	0.72	7.56	172600.00	6.84	1.22	0.89	0.111	0.282	0.109
Control	0.55	8.40	260666.67	7.85	1.43	1.00	0.000	0.000	0.000
348.93	0.93	1.30	17300.00	0.37	0.07	0.05	0.950	0.991	0.953
249.24	0.91	2.12	27933.33	1.22	0.31	0.22	0.782	0.947	0.845
99.69	0.67	3.10	52533.33	2.43	0.63	0.44	0.561	0.847	0.691
74.77	0.70	4.26	71333.33	3.56	0.78	0.55	0.454	0.771	0.547
34.89	0.68	6.50	145366.67	5.82	1.13	0.79	0.205	0.469	0.258
4.98	0.71	7.62	196300.00	6.91	1.28	0.90	0.099	0.262	0.120

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: Carbon tetrachloride

Mean cell volume ( $\mu\text{m}^3$ ): 39.68

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.44	8.13	263000.00	7.69	1.43	1.00	0.000	0.000	0.000
58.91	0.69	1.03	19200.00	0.34	0.12	0.09	0.914	0.983	0.956
49.40	0.61	2.44	45300.00	1.83	0.55	0.39	0.614	0.878	0.762
38.92	0.54	3.87	89900.00	3.33	0.90	0.63	0.375	0.698	0.567
29.45	0.55	5.98	113500.00	5.43	1.01	0.71	0.293	0.603	0.294
18.93	0.56	7.24	189100.00	6.68	1.27	0.88	0.115	0.298	0.131
9.46	1.05	7.96	237100.00	6.91	1.38	0.96	0.036	0.104	0.101
Control	0.44	8.41	262900.00	7.97	1.43	1.00	0.000	0.000	0.000
58.91	0.98	1.44	17800.00	0.46	0.09	0.06	0.940	0.989	0.942
49.40	0.76	2.72	41800.00	1.96	0.51	0.36	0.642	0.892	0.754
38.92	0.85	4.35	85600.00	3.50	0.87	0.61	0.392	0.715	0.561
29.45	0.71	6.22	103900.00	5.51	0.97	0.68	0.324	0.641	0.309
18.93	0.69	7.41	176800.00	6.72	1.23	0.86	0.139	0.347	0.157
9.46	0.88	7.99	215900.00	7.11	1.33	0.93	0.069	0.190	0.108
Control	0.56	8.16	248300.00	7.60	1.40	1.00	0.000	0.000	0.000
58.91	0.83	1.14	16900.00	0.31	0.06	0.04	0.958	0.992	0.959
49.40	0.75	2.55	39800.00	1.80	0.49	0.35	0.652	0.894	0.763
38.92	0.53	3.82	79900.00	3.29	0.84	0.60	0.404	0.722	0.567
29.45	0.66	6.05	99800.00	5.39	0.95	0.68	0.325	0.637	0.291
18.93	0.76	7.36	165800.00	6.60	1.20	0.86	0.144	0.354	0.132
9.46	0.66	7.44	199900.00	6.78	1.29	0.92	0.077	0.207	0.108
Control	0.48	8.23	258066.67	7.75	1.42	1.00	0.000	0.000	0.000
58.91	0.83	1.20	17966.67	0.37	0.09	0.06	0.937	0.988	0.952
49.40	0.71	2.57	42300.00	1.86	0.52	0.36	0.636	0.888	0.760
38.92	0.64	4.01	85133.33	3.37	0.87	0.61	0.390	0.711	0.565
29.45	0.64	6.08	105733.33	5.44	0.98	0.69	0.314	0.627	0.298
18.93	0.67	7.34	177233.33	6.67	1.23	0.87	0.132	0.333	0.140
9.46	0.86	7.80	217633.33	6.93	1.34	0.94	0.060	0.166	0.106

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: 1,2-dichloropropane

Mean cell volume ( $\mu\text{m}^3$ ): 41.18

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.48	11.05	289100	10.57	1.48	1.00	0.000	0.000	0.000
293.74	1.40	1.56	17700	0.16	0.08	0.06	0.944	0.990	0.985
196.33	1.09	1.30	29000	0.21	0.33	0.22	0.777	0.949	0.980
143.47	1.06	3.76	41400	2.70	0.51	0.34	0.657	0.904	0.745
98.17	0.97	4.77	60400	3.80	0.70	0.47	0.529	0.834	0.640
48.33	0.82	9.76	133800	8.94	1.09	0.74	0.260	0.567	0.154
9.82	1.24	10.31	241200	9.07	1.39	0.94	0.061	0.175	0.142
Control	0.42	10.98	283200	10.56	1.47	1.00	0.000	0.000	0.000
293.74	1.03	1.23	17800	0.20	0.09	0.06	0.942	0.990	0.981
196.33	0.98	1.78	29300	0.80	0.33	0.23	0.772	0.947	0.924
143.47	0.71	3.21	43200	2.50	0.53	0.36	0.640	0.895	0.763
98.17	0.65	4.20	71900	3.55	0.78	0.53	0.467	0.788	0.664
48.33	0.75	9.13	136500	8.38	1.10	0.75	0.248	0.547	0.206
9.82	0.86	9.97	233800	9.11	1.37	0.93	0.065	0.184	0.137
Control	0.51	10.03	234500	9.52	1.37	1.00	0.000	0.000	0.000
293.74	0.71	0.96	16600	0.25	0.05	0.04	0.963	0.993	0.974
196.33	0.66	1.68	26500	1.02	0.28	0.21	0.793	0.948	0.893
143.47	0.65	2.99	51500	2.34	0.62	0.45	0.551	0.834	0.754
98.17	0.73	4.53	69800	3.80	0.77	0.56	0.441	0.750	0.601
48.33	0.82	9.15	123900	8.33	1.06	0.77	0.232	0.504	0.125
9.82	0.91	10.03	172600	9.12	1.22	0.89	0.111	0.282	0.042
Control	0.47	10.69	268933.33	10.22	1.44	1.00	0.000	0.000	0.000
293.74	1.05	1.25	17366.67	0.20	0.07	0.05	0.949	0.991	0.980
196.33	0.91	1.59	28266.67	0.68	0.32	0.22	0.780	0.948	0.934
143.47	0.81	3.32	45366.67	2.51	0.55	0.38	0.617	0.880	0.754
98.17	0.78	4.50	67366.67	3.72	0.75	0.52	0.480	0.794	0.636
48.33	0.80	9.35	131400.00	8.55	1.08	0.75	0.248	0.542	0.163
9.82	1.00	10.10	215866.67	9.10	1.33	0.92	0.076	0.209	0.109

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: 1,3-dichloropropane

Mean cell volume ( $\mu\text{m}^3$ ): 40.63

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.53	7.80	225300.00	7.27	1.35	1.00	0.000	0.000	0.000
939.47	1.46	3.88	51200.00	2.42	0.61	0.45	0.547	0.828	0.667
296.38	1.23	4.56	75600.00	3.33	0.81	0.60	0.403	0.712	0.542
98.79	1.55	6.73	102500.00	5.18	0.96	0.71	0.291	0.584	0.287
9.41	0.69	6.75	112000.00	6.06	1.01	0.74	0.258	0.539	0.166
0.94	0.77	7.21	176800.00	6.44	1.23	0.91	0.089	0.231	0.114
0.10	0.66	7.77	203700.00	7.11	1.30	0.96	0.037	0.103	0.022
Control	0.47	7.85	221300.00	7.38	1.35	1.00	0.000	0.000	0.000
939.47	3.08	5.16	49900.00	2.08	0.60	0.45	0.553	0.831	0.718
296.38	1.32	4.85	73900.00	3.53	0.80	0.59	0.408	0.714	0.522
98.79	1.09	6.62	103600.00	5.53	0.97	0.72	0.282	0.571	0.251
9.41	0.66	7.34	175300.00	6.68	1.23	0.91	0.087	0.223	0.095
0.94	0.60	7.51	176600.00	6.91	1.23	0.92	0.084	0.217	0.064
0.10	0.59	7.59	198400.00	7.00	1.29	0.96	0.041	0.111	0.051
Control	0.50	7.54	254500.00	7.04	1.42	1.00	0.000	0.000	0.000
939.47	0.68	1.73	45600.00	1.05	0.56	0.39	0.607	0.872	0.851
296.38	1.64	4.95	71900.00	3.31	0.78	0.55	0.446	0.762	0.530
98.79	1.16	6.42	61800.00	5.26	0.71	0.50	0.500	0.805	0.253
9.41	0.71	7.14	155600.00	6.43	1.17	0.83	0.174	0.413	0.087
0.94	0.58	7.29	190200.00	6.71	1.27	0.90	0.103	0.268	0.047
0.10	0.53	7.33	217500.00	6.80	1.34	0.94	0.055	0.154	0.034
Control	0.50	7.73	233700.00	7.23	1.37	1.00	0.000	0.000	0.000
939.47	1.74	3.59	48900.00	1.85	0.59	0.43	0.570	0.845	0.744
296.38	1.40	4.79	73800.00	3.39	0.80	0.58	0.420	0.731	0.531
98.79	1.27	6.59	89300.00	5.32	0.88	0.64	0.350	0.660	0.264
9.41	0.69	7.08	147633.33	6.39	1.13	0.83	0.167	0.394	0.116
0.94	0.65	7.34	181200.00	6.69	1.25	0.91	0.093	0.240	0.075
0.10	0.59	7.56	206533.33	6.97	1.31	0.96	0.045	0.124	0.036

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: 1-chlorobutane

Mean cell volume ( $\mu\text{m}^3$ ): 40.41

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.67	8.65	221300.00	7.98	1.35	1.00	0.000	0.000	0.000
69.00	1.14	1.49	17600.00	0.35	0.08	0.06	0.941	0.987	0.956
59.06	0.88	1.74	20700.00	0.86	0.16	0.12	0.880	0.972	0.892
49.12	0.95	2.91	76300.00	1.96	0.81	0.60	0.396	0.703	0.754
39.18	0.92	4.48	101000.00	3.56	0.95	0.71	0.291	0.583	0.554
29.23	1.11	6.59	158600.00	5.48	1.18	0.88	0.124	0.304	0.313
19.30	1.06	8.83	206700.00	7.77	1.31	0.97	0.025	0.071	0.026
Control	0.91	8.91	231800.00	8.00	1.37	1.00	0.000	0.000	0.000
69.00	1.10	1.51	18600.00	0.41	0.11	0.08	0.921	0.983	0.949
59.06	0.99	1.97	21300.00	0.98	0.18	0.13	0.872	0.971	0.878
49.12	1.01	2.95	85400.00	1.94	0.87	0.64	0.365	0.675	0.758
39.18	0.78	4.55	123800.00	3.77	1.06	0.77	0.229	0.498	0.529
29.23	0.81	6.43	176900.00	5.62	1.23	0.90	0.099	0.253	0.298
19.30	0.60	8.39	210300.00	7.79	1.32	0.96	0.036	0.099	0.026
Control	0.60	8.62	254500.00	8.02	1.42	1.00	0.000	0.000	0.000
69.00	0.89	1.28	45600.00	0.39	0.56	0.39	0.607	0.872	0.951
59.06	1.01	1.92	71900.00	0.91	0.78	0.55	0.446	0.762	0.887
49.12	0.98	2.86	61800.00	1.88	0.71	0.50	0.500	0.805	0.766
39.18	1.21	4.73	155600.00	3.52	1.17	0.83	0.174	0.413	0.561
29.23	1.03	6.79	190200.00	5.76	1.27	0.90	0.103	0.268	0.282
19.30	0.79	8.59	217500.00	7.80	1.34	0.94	0.055	0.154	0.027
Control	0.73	8.73	235866.67	8.00	1.38	1.00	0.000	0.000	0.000
69.00	1.04	1.43	27266.67	0.38	0.25	0.18	0.783	0.944	0.952
59.06	0.96	1.88	37966.67	0.92	0.37	0.27	0.663	0.896	0.885
49.12	0.98	2.91	74500.00	1.93	0.80	0.58	0.418	0.731	0.759
39.18	0.97	4.59	126800.00	3.62	1.06	0.77	0.225	0.494	0.548
29.23	0.98	6.60	175233.33	5.62	1.23	0.89	0.108	0.275	0.298
19.30	0.82	8.60	211500.00	7.79	1.32	0.96	0.040	0.110	0.027

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: Cis-1,2-dichloroethylene

Mean cell volume ( $\mu\text{m}^3$ ): 42.03

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.69	10.42	298000.00	9.73	1.49	1.00	0.000	0.000	0.000
83.76	1.09	1.97	30500.00	0.88	0.35	0.24	0.763	0.945	0.910
74.90	0.92	4.15	57500.00	3.23	0.67	0.45	0.550	0.850	0.668
64.84	1.02	6.43	123500.00	5.41	1.05	0.71	0.295	0.617	0.444
54.99	0.98	8.28	200900.00	7.30	1.30	0.87	0.132	0.343	0.250
49.86	0.92	8.69	222300.00	7.77	1.35	0.90	0.098	0.267	0.201
44.94	0.78	9.12	247100.00	8.34	1.40	0.94	0.063	0.180	0.143
Control	0.68	10.39	291000.00	9.71	1.48	1.00	0.000	0.000	0.000
83.76	1.08	1.97	31000.00	0.89	0.36	0.24	0.755	0.942	0.908
74.90	0.88	4.46	56000.00	3.58	0.66	0.44	0.556	0.851	0.631
64.84	1.10	6.73	135600.00	5.63	1.10	0.74	0.258	0.563	0.420
54.99	0.95	8.35	199800.00	7.40	1.29	0.87	0.127	0.330	0.238
49.86	0.75	8.69	221900.00	7.94	1.35	0.91	0.091	0.250	0.182
44.94	0.88	9.21	245900.00	8.33	1.40	0.94	0.057	0.163	0.142
Control	0.45	10.13	295000.00	9.68	1.49	1.00	0.000	0.000	0.000
83.76	1.17	2.03	32600.00	0.86	0.39	0.26	0.739	0.937	0.911
74.90	1.09	4.48	56100.00	3.39	0.66	0.44	0.557	0.853	0.650
64.84	0.85	6.49	129800.00	5.64	1.08	0.72	0.276	0.590	0.417
54.99	0.41	7.79	201000.00	7.38	1.30	0.87	0.129	0.336	0.238
49.86	0.61	8.56	221500.00	7.95	1.35	0.90	0.096	0.263	0.179
44.94	0.75	9.15	243100.00	8.40	1.39	0.94	0.065	0.185	0.132
Control	0.61	10.31	294666.67	9.71	1.49	1.00	0.000	0.000	0.000
83.76	1.11	1.99	31366.67	0.88	0.37	0.25	0.752	0.941	0.910
74.90	0.96	4.36	56533.33	3.40	0.66	0.45	0.554	0.851	0.650
64.84	0.99	6.55	129633.33	5.56	1.08	0.72	0.276	0.590	0.427
54.99	0.78	8.14	200566.67	7.36	1.30	0.87	0.129	0.336	0.242
49.86	0.76	8.65	221900.00	7.89	1.35	0.90	0.095	0.260	0.188
44.94	0.80	9.16	245366.67	8.36	1.40	0.94	0.061	0.176	0.139

IR: Inhibition Rate

DO: Dissolved Oxygen



Toxicant: Trans-1,2-dichloroethylene

Mean cell volume ( $\mu\text{m}^3$ ): 41.25

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.52	10.02	279100.00	9.50	1.46	1.00	0.000	0.000	0.000
54.89	1.23	3.65	30500.00	2.42	0.35	0.24	0.757	0.941	0.745
49.86	1.12	4.46	51900.00	3.34	0.62	0.42	0.575	0.860	0.648
44.83	1.18	5.14	88700.00	3.96	0.89	0.61	0.392	0.721	0.583
39.81	1.04	6.29	111600.00	5.25	1.00	0.69	0.314	0.634	0.447
34.99	1.36	8.13	172900.00	6.77	1.22	0.84	0.164	0.402	0.287
29.96	0.92	8.30	198200.00	7.38	1.29	0.88	0.117	0.306	0.223
Control	0.51	9.98	280100.00	9.47	1.46	1.00	0.000	0.000	0.000
54.89	1.18	3.47	29800.00	2.29	0.34	0.23	0.765	0.944	0.758
49.86	1.12	4.50	52000.00	3.38	0.62	0.42	0.575	0.860	0.643
44.83	0.83	4.89	85100.00	4.06	0.87	0.59	0.407	0.736	0.571
39.81	0.50	5.85	110900.00	5.35	1.00	0.68	0.317	0.638	0.435
34.99	0.44	7.25	173600.00	6.81	1.22	0.84	0.163	0.402	0.281
29.96	0.45	8.79	197800.00	8.34	1.29	0.88	0.119	0.310	0.119
Control	0.46	9.54	288500.00	9.08	1.48	1.00	0.000	0.000	0.000
54.89	1.16	3.39	29500.00	2.23	0.34	0.23	0.771	0.947	0.754
49.86	1.11	4.49	53100.00	3.38	0.63	0.43	0.572	0.861	0.628
44.83	0.84	4.92	87900.00	4.08	0.88	0.60	0.402	0.733	0.551
39.81	0.38	5.68	132500.00	5.30	1.09	0.74	0.263	0.570	0.416
34.99	0.45	7.38	180300.00	6.93	1.24	0.84	0.159	0.396	0.237
29.96	0.46	8.49	200100.00	8.03	1.30	0.88	0.124	0.323	0.116
Control	0.50	9.85	282566.67	9.35	1.47	1.00	0.000	0.000	0.000
54.89	1.19	3.50	29933.33	2.31	0.35	0.24	0.765	0.944	0.753
49.86	1.12	4.48	52333.33	3.37	0.62	0.43	0.574	0.860	0.640
44.83	0.95	4.98	87233.33	4.03	0.88	0.60	0.400	0.730	0.569
39.81	0.64	5.94	118333.33	5.30	1.03	0.70	0.296	0.614	0.433
34.99	0.75	7.59	175600.00	6.84	1.23	0.84	0.162	0.400	0.269
29.96	0.61	8.53	198700.00	7.92	1.29	0.88	0.120	0.313	0.153

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: Trichloroethylene

Mean cell volume ( $\mu\text{m}^3$ ): 40.76

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.62	8.43	223800.00	7.81	1.35	1.00	0.000	0.000	0.000
175.44	1.18	1.48	27900.00	0.30	0.31	0.23	0.770	0.938	0.962
87.72	0.90	2.24	47700.00	1.34	0.58	0.43	0.572	0.843	0.828
58.48	0.80	4.54	80000.00	3.74	0.84	0.62	0.381	0.689	0.521
29.24	0.68	6.99	108000.00	6.31	0.99	0.73	0.270	0.555	0.192
19.49	0.90	7.74	159300.00	6.84	1.18	0.87	0.126	0.309	0.124
9.75	0.98	8.39	170100.00	7.41	1.21	0.90	0.102	0.257	0.051
Control	0.41	8.41	225300.00	8.00	1.35	1.00	0.000	0.000	0.000
175.44	1.04	1.19	26900.00	0.15	0.29	0.22	0.784	0.943	0.981
87.72	0.96	2.33	34200.00	1.37	0.41	0.30	0.696	0.909	0.829
58.48	0.71	4.44	64100.00	3.73	0.73	0.54	0.464	0.767	0.534
29.24	0.71	7.01	114200.00	6.30	1.01	0.75	0.251	0.528	0.213
19.49	0.81	7.35	164100.00	6.54	1.20	0.88	0.117	0.291	0.183
9.75	0.96	8.22	171100.00	7.26	1.22	0.90	0.102	0.258	0.092
Control	0.50	7.54	234500.00	7.04	1.37	1.00	0.000	0.000	0.000
175.44	0.68	0.88	27500.00	0.20	0.30	0.22	0.780	0.943	0.972
87.72	0.67	1.97	43800.00	1.30	0.54	0.39	0.610	0.869	0.815
58.48	0.54	4.24	75000.00	3.70	0.80	0.59	0.415	0.727	0.474
29.24	0.56	6.91	109200.00	6.35	0.99	0.72	0.278	0.571	0.098
19.49	0.68	7.28	155600.00	6.60	1.17	0.85	0.149	0.359	0.062
9.75	0.72	8.02	172600.00	7.30	1.22	0.89	0.111	0.282	-0.037
Control	0.51	8.13	227866.67	7.62	1.36	1.00	0.000	0.000	0.000
175.44	0.97	1.18	27433.33	0.22	0.30	0.22	0.778	0.942	0.972
87.72	0.84	2.18	41900.00	1.34	0.51	0.37	0.622	0.874	0.825
58.48	0.68	4.41	73033.33	3.72	0.79	0.58	0.418	0.727	0.511
29.24	0.65	6.97	110466.67	6.32	1.00	0.73	0.266	0.552	0.170
19.49	0.80	7.46	159666.67	6.66	1.18	0.87	0.131	0.320	0.126
9.75	0.89	8.21	171266.67	7.32	1.22	0.90	0.105	0.266	0.039

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: Tetrachloroethylene

Mean cell volume ( $\mu\text{m}^3$ ): 40.76

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.60	7.53	251800.00	6.93	1.41	1.00	0.000	0.000	0.000
193.79	0.86	1.06	23800.00	0.20	0.23	0.16	0.836	0.963	0.971
96.89	0.85	1.11	30400.00	0.26	0.35	0.25	0.750	0.935	0.962
49.52	1.06	1.36	34800.00	0.30	0.42	0.30	0.702	0.916	0.957
17.23	0.74	2.52	72500.00	1.78	0.79	0.56	0.441	0.757	0.743
8.61	0.76	6.56	140200.00	5.80	1.12	0.79	0.208	0.471	0.163
4.31	0.70	7.20	185000.00	6.50	1.26	0.89	0.109	0.282	0.062
Control	0.49	8.36	210500.00	7.87	1.32	1.00	0.000	0.000	0.000
193.79	1.18	1.36	21000.00	0.18	0.17	0.13	0.873	0.969	0.977
96.89	0.87	1.41	22200.00	0.54	0.20	0.15	0.852	0.963	0.931
49.52	0.66	1.37	39600.00	0.71	0.49	0.37	0.632	0.874	0.910
17.23	0.72	4.05	69100.00	3.33	0.76	0.58	0.422	0.723	0.577
8.61	0.78	6.88	158600.00	6.10	1.18	0.89	0.107	0.265	0.225
4.31	0.91	8.01	179200.00	7.10	1.24	0.94	0.061	0.160	0.098
Control	0.50	7.54	234500.00	7.04	1.37	1.00	0.000	0.000	0.000
193.79	0.68	0.88	22500.00	0.20	0.20	0.15	0.853	0.966	0.972
96.89	0.67	1.08	26800.00	0.41	0.29	0.21	0.789	0.946	0.942
49.52	0.54	1.19	38500.00	0.65	0.47	0.34	0.657	0.893	0.908
17.23	0.56	3.21	71600.00	2.65	0.78	0.57	0.431	0.742	0.624
8.61	0.68	6.59	155600.00	5.91	1.17	0.85	0.149	0.359	0.161
4.31	0.72	7.32	175600.00	6.60	1.23	0.89	0.105	0.268	0.062
Control	0.53	7.81	232266.67	7.28	1.37	1.00	0.000	0.000	0.000
193.79	0.91	1.10	22433.33	0.19	0.20	0.15	0.853	0.966	0.973
96.89	0.80	1.20	26466.67	0.40	0.28	0.20	0.793	0.947	0.945
49.52	0.75	1.31	37633.33	0.55	0.46	0.34	0.664	0.896	0.924
17.23	0.67	3.26	71066.67	2.59	0.78	0.57	0.432	0.742	0.645
8.61	0.74	6.68	151466.67	5.94	1.16	0.85	0.156	0.372	0.185
4.31	0.78	7.51	179933.33	6.73	1.24	0.91	0.093	0.241	0.075

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: Ethylbenzene

Mean cell volume ( $\mu\text{m}^3$ ): 39.89

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.49	10.30	255500.00	9.81	1.42	1.00	0.000	0.000	0.000
28.49	1.17	1.24	21300.00	0.07	0.18	0.12	0.876	0.974	0.993
9.49	1.08	1.26	41500.00	0.18	0.51	0.36	0.641	0.890	0.982
4.72	0.79	1.72	51800.00	0.93	0.62	0.44	0.563	0.847	0.905
2.79	0.46	3.58	88500.00	3.12	0.89	0.63	0.374	0.694	0.682
0.93	0.48	6.00	147200.00	5.52	1.14	0.81	0.194	0.450	0.437
0.66	0.50	8.89	237800.00	8.39	1.38	0.97	0.025	0.074	0.145
Control	0.51	9.56	277500.00	9.05	1.46	1.00	0.000	0.000	0.000
28.49	1.19	1.30	22600.00	0.11	0.20	0.14	0.860	0.971	0.988
9.49	1.10	1.42	43200.00	0.32	0.53	0.36	0.637	0.893	0.965
4.72	0.82	1.99	52900.00	1.17	0.63	0.43	0.568	0.856	0.871
2.79	0.44	3.64	88900.00	3.20	0.89	0.61	0.390	0.718	0.646
0.93	0.45	6.05	151200.00	5.60	1.16	0.79	0.208	0.481	0.381
0.66	0.42	8.93	223400.00	8.51	1.35	0.93	0.074	0.206	0.060
Control	0.45	9.45	263500.00	9.00	1.43	1.00	0.000	0.000	0.000
28.49	1.15	1.28	22300.00	0.13	0.20	0.14	0.862	0.971	0.986
9.49	1.13	1.56	42800.00	0.43	0.52	0.37	0.634	0.888	0.952
4.72	0.85	1.78	53100.00	0.93	0.63	0.44	0.559	0.847	0.897
2.79	0.39	3.56	87600.00	3.17	0.88	0.62	0.384	0.708	0.648
0.93	0.41	6.13	149900.00	5.72	1.15	0.80	0.197	0.457	0.364
0.66	0.39	8.88	239500.00	8.49	1.39	0.97	0.033	0.097	0.057
Control	0.48	9.77	265500.00	9.29	1.44	1.00	0.000	0.000	0.000
28.49	1.17	1.27	22066.67	0.10	0.19	0.13	0.866	0.972	0.989
9.49	1.10	1.41	42500.00	0.31	0.52	0.36	0.638	0.890	0.967
4.72	0.82	1.83	52600.00	1.01	0.63	0.44	0.563	0.850	0.891
2.79	0.43	3.59	88333.33	3.16	0.89	0.62	0.383	0.707	0.659
0.93	0.45	6.06	149433.33	5.61	1.15	0.80	0.200	0.463	0.396
0.66	0.44	8.90	233566.67	8.46	1.37	0.96	0.045	0.127	0.089

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: Nitrobenzene

Mean cell volume ( $\mu\text{m}^3$ ): 41.62

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.55	9.16	264200.00	8.61	1.43	1.00	0.000	0.000	0.000
78.14	0.76	1.10	21900.00	0.34	0.19	0.13	0.868	0.972	0.961
58.60	0.71	1.52	32500.00	0.81	0.39	0.27	0.730	0.930	0.906
39.06	0.94	2.63	51800.00	1.69	0.62	0.43	0.568	0.852	0.804
19.53	1.07	5.70	122100.00	4.63	1.05	0.73	0.269	0.570	0.462
9.37	1.63	8.58	220600.00	6.95	1.34	0.94	0.063	0.175	0.193
0.78	1.46	9.22	253300.00	7.76	1.41	0.99	0.015	0.044	0.099
Control	0.59	8.95	256600.00	8.36	1.42	1.00	0.000	0.000	0.000
78.14	0.80	1.15	22500.00	0.35	0.20	0.14	0.857	0.969	0.958
58.60	0.75	1.62	33600.00	0.87	0.40	0.28	0.716	0.923	0.896
39.06	0.98	2.73	52900.00	1.75	0.63	0.44	0.556	0.843	0.791
19.53	1.05	5.64	123500.00	4.59	1.05	0.74	0.258	0.551	0.451
9.37	1.65	8.56	221800.00	6.91	1.35	0.95	0.051	0.144	0.173
0.78	1.53	9.30	236300.00	7.77	1.38	0.97	0.029	0.084	0.071
Control	0.48	8.98	234500.00	8.50	1.37	1.00	0.000	0.000	0.000
78.14	0.71	1.02	21600.00	0.31	0.18	0.13	0.867	0.970	0.964
58.60	0.69	1.59	31300.00	0.90	0.37	0.27	0.732	0.926	0.894
39.06	0.88	2.55	51500.00	1.67	0.62	0.45	0.551	0.834	0.804
19.53	1.01	5.66	69800.00	4.65	0.77	0.56	0.441	0.750	0.453
9.37	1.58	8.47	123900.00	6.89	1.06	0.77	0.232	0.504	0.189
0.78	1.59	9.38	221800.00	7.79	1.35	0.98	0.020	0.058	0.084
Control	0.54	9.03	251766.67	8.49	1.41	1.00	0.000	0.000	0.000
78.14	0.76	1.09	22000.00	0.33	0.19	0.14	0.864	0.970	0.961
58.60	0.72	1.58	32466.67	0.86	0.39	0.27	0.726	0.926	0.899
39.06	0.93	2.64	52066.67	1.70	0.62	0.44	0.559	0.843	0.799
19.53	1.04	5.67	105133.33	4.62	0.96	0.68	0.310	0.619	0.455
9.37	1.62	8.54	188766.67	6.92	1.25	0.88	0.102	0.266	0.185
0.78	1.53	9.30	237133.33	7.77	1.38	0.98	0.021	0.062	0.084

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: 2-chlorotoluene

Mean cell volume ( $\mu\text{m}^3$ ): 39.80

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.65	9.16	263100.00	8.51	1.43	1.00	0.000	0.000	0.000
19.08	0.83	1.10	36600.00	0.27	0.45	0.31	0.689	0.913	0.968
15.54	1.04	1.47	41300.00	0.43	0.51	0.35	0.646	0.894	0.949
13.43	0.82	1.82	46000.00	1.00	0.56	0.39	0.609	0.875	0.882
11.31	0.97	4.36	120100.00	3.39	1.04	0.73	0.274	0.576	0.602
9.18	0.97	7.96	253700.00	6.99	1.41	0.99	0.013	0.038	0.179
4.94	0.85	8.21	261300.00	7.36	1.43	1.00	0.002	0.007	0.135
Control	0.61	9.25	271500.00	8.64	1.45	1.00	0.000	0.000	0.000
19.08	0.82	1.15	35900.00	0.33	0.44	0.30	0.699	0.919	0.962
15.54	1.07	1.50	42500.00	0.43	0.52	0.36	0.640	0.893	0.950
13.43	0.85	1.79	48500.00	0.94	0.59	0.41	0.595	0.869	0.891
11.31	0.95	4.51	121300.00	3.56	1.05	0.72	0.278	0.586	0.588
9.18	0.89	7.88	257800.00	6.99	1.42	0.98	0.018	0.053	0.191
4.94	0.81	8.22	263800.00	7.41	1.43	0.99	0.010	0.030	0.142
Control	0.70	8.98	234500.00	8.28	1.37	1.00	0.000	0.000	0.000
19.08	0.81	1.05	21600.00	0.24	0.18	0.13	0.867	0.970	0.971
15.54	1.05	1.59	31300.00	0.54	0.37	0.27	0.732	0.926	0.935
13.43	0.91	2.39	51500.00	1.48	0.62	0.45	0.551	0.834	0.821
11.31	0.88	4.70	69800.00	3.82	0.77	0.56	0.441	0.750	0.539
9.18	0.76	7.69	123900.00	6.93	1.06	0.77	0.232	0.504	0.163
4.94	0.82	8.86	221800.00	8.04	1.35	0.98	0.020	0.058	0.029
Control	0.65	9.13	256366.67	8.48	1.42	1.00	0.000	0.000	0.000
19.08	0.82	1.10	31366.67	0.28	0.35	0.25	0.740	0.932	0.967
15.54	1.05	1.52	38366.67	0.47	0.46	0.33	0.669	0.903	0.945
13.43	0.86	2.00	48666.67	1.14	0.59	0.42	0.585	0.861	0.866
11.31	0.93	4.52	103733.33	3.59	0.95	0.67	0.319	0.632	0.576
9.18	0.87	7.84	211800.00	6.97	1.30	0.91	0.067	0.185	0.178
4.94	0.83	8.43	248966.67	7.60	1.40	0.99	0.010	0.031	0.103

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: 2,6-dinitrotoluene

Mean cell volume ( $\mu\text{m}^3$ ): 41.53

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.54	7.07	252800.00	6.53	1.41	1.00	0.000	0.000	0.000
58.85	0.79	2.06	31400.00	1.27	0.37	0.26	0.738	0.931	0.806
29.43	0.72	4.48	49300.00	3.76	0.59	0.42	0.579	0.856	0.424
19.62	0.62	5.00	66500.00	4.38	0.74	0.53	0.473	0.783	0.329
9.81	0.72	6.34	101100.00	5.62	0.95	0.68	0.324	0.638	0.139
0.98	0.46	6.69	136600.00	6.23	1.10	0.78	0.218	0.489	0.046
0.28	0.45	6.82	176700.00	6.37	1.23	0.87	0.127	0.320	0.025
Control	0.50	7.14	286000.00	6.64	1.47	1.00	0.000	0.000	0.000
58.85	0.94	2.14	35200.00	1.20	0.43	0.29	0.711	0.925	0.819
29.43	0.66	4.34	48900.00	3.68	0.59	0.40	0.599	0.875	0.446
19.62	0.65	5.04	68300.00	4.39	0.76	0.51	0.486	0.803	0.339
9.81	0.54	6.13	109800.00	5.59	1.00	0.68	0.325	0.650	0.158
0.98	0.47	6.77	165600.00	6.30	1.20	0.81	0.185	0.444	0.051
0.28	0.58	7.09	209400.00	6.51	1.32	0.89	0.106	0.283	0.020
Control	0.51	7.46	251200.00	6.95	1.41	1.00	0.000	0.000	0.000
58.85	0.77	2.95	26900.00	2.18	0.29	0.21	0.793	0.950	0.686
29.43	0.70	4.25	47600.00	3.55	0.58	0.41	0.590	0.862	0.489
19.62	0.59	5.11	75500.00	4.52	0.81	0.57	0.427	0.744	0.350
9.81	0.55	6.11	110300.00	5.56	1.00	0.71	0.292	0.597	0.200
0.98	0.51	6.93	187000.00	6.42	1.26	0.90	0.105	0.272	0.076
0.28	0.55	7.06	217600.00	6.51	1.34	0.95	0.051	0.142	0.063
Control	0.52	7.22	263333.33	6.71	1.43	1.00	0.000	0.000	0.000
58.85	0.83	2.38	31166.67	1.55	0.36	0.25	0.745	0.935	0.769
29.43	0.69	4.36	48600.00	3.66	0.59	0.41	0.590	0.865	0.454
19.62	0.62	5.05	70100.00	4.43	0.77	0.54	0.462	0.778	0.339
9.81	0.60	6.19	107066.67	5.59	0.98	0.69	0.314	0.629	0.167
0.98	0.48	6.80	163066.67	6.32	1.19	0.83	0.167	0.404	0.058
0.28	0.53	6.99	201233.33	6.46	1.30	0.91	0.094	0.250	0.036

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: 2-chloro-p-xylene

Mean cell volume ( $\mu\text{m}^3$ ): 42.12

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.47	8.22	291300.00	7.75	1.48	1.00	0.000	0.000	0.000
9.87	0.75	1.16	19500.00	0.41	0.13	0.09	0.912	0.984	0.947
4.85	0.72	1.59	40700.00	0.87	0.50	0.34	0.663	0.907	0.888
3.81	0.68	1.70	61400.00	1.02	0.70	0.48	0.525	0.832	0.868
2.94	0.79	4.05	136400.00	3.26	1.10	0.74	0.256	0.561	0.579
1.90	0.98	6.96	198900.00	5.98	1.29	0.87	0.129	0.334	0.228
0.87	0.77	8.32	267300.00	7.55	1.44	0.97	0.029	0.087	0.026
Control	0.41	8.27	284500.00	7.86	1.47	1.00	0.000	0.000	0.000
9.87	0.99	1.44	20100.00	0.45	0.15	0.10	0.901	0.981	0.943
4.85	0.92	1.82	41500.00	0.90	0.51	0.35	0.654	0.902	0.885
3.81	0.75	2.01	62800.00	1.26	0.72	0.49	0.513	0.823	0.840
2.94	0.91	4.22	135700.00	3.31	1.10	0.75	0.252	0.552	0.579
1.90	0.82	6.87	201000.00	6.05	1.30	0.88	0.118	0.310	0.230
0.87	0.90	8.52	268500.00	7.62	1.44	0.98	0.020	0.059	0.031
Control	0.45	8.24	288600.00	7.79	1.48	1.00	0.000	0.000	0.000
9.87	0.71	1.31	25900.00	0.60	0.27	0.18	0.815	0.960	0.923
4.85	0.56	1.59	64200.00	1.03	0.73	0.49	0.508	0.820	0.868
3.81	0.72	2.19	83100.00	1.47	0.86	0.58	0.421	0.751	0.811
2.94	0.49	3.82	123800.00	3.33	1.06	0.71	0.286	0.602	0.573
1.90	0.71	6.57	149800.00	5.86	1.15	0.78	0.222	0.507	0.248
0.87	0.73	8.19	246600.00	7.46	1.40	0.95	0.053	0.154	0.042
Control	0.44	8.24	288133.33	7.80	1.48	1.00	0.000	0.000	0.000
9.87	0.82	1.30	21833.33	0.49	0.18	0.12	0.873	0.975	0.938
4.85	0.73	1.67	48800.00	0.93	0.58	0.39	0.601	0.876	0.880
3.81	0.72	1.97	69100.00	1.25	0.76	0.51	0.483	0.802	0.840
2.94	0.73	4.03	131966.67	3.30	1.09	0.74	0.264	0.572	0.577
1.90	0.84	6.80	183233.33	5.96	1.25	0.84	0.153	0.384	0.235
0.87	0.80	8.34	260800.00	7.54	1.43	0.97	0.034	0.100	0.033

IR: Inhibition Rate

DO: Dissolved Oxygen



Toxicant: 2-nitrophenol

Mean cell volume ( $\mu\text{m}^3$ ): 42.12

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.54	7.95	291300.00	7.41	1.48	1.00	0.000	0.000	0.000
8.85	1.20	2.01	26500.00	0.81	0.28	0.19	0.808	0.958	0.891
6.88	1.09	2.98	62100.00	1.89	0.71	0.48	0.521	0.830	0.745
4.92	1.04	3.56	82900.00	2.52	0.85	0.58	0.424	0.754	0.660
2.95	0.98	4.87	118300.00	3.89	1.03	0.70	0.304	0.626	0.475
0.98	1.18	6.10	140300.00	4.92	1.12	0.75	0.246	0.547	0.336
0.12	1.01	7.89	238600.00	6.88	1.38	0.93	0.067	0.191	0.072
Control	0.42	8.02	283800.00	7.60	1.47	1.00	0.000	0.000	0.000
8.85	1.03	1.78	26300.00	0.75	0.28	0.19	0.809	0.958	0.901
6.88	0.94	2.86	63300.00	1.92	0.72	0.49	0.510	0.820	0.747
4.92	0.71	3.33	87800.00	2.62	0.88	0.60	0.399	0.729	0.655
2.95	0.89	4.84	120100.00	3.95	1.04	0.71	0.292	0.609	0.480
0.98	0.78	5.69	151300.00	4.91	1.16	0.79	0.214	0.493	0.354
0.12	0.93	7.98	249800.00	7.05	1.41	0.96	0.043	0.126	0.072
Control	0.47	8.06	288600.00	7.59	1.48	1.00	0.000	0.000	0.000
8.85	0.70	1.49	25900.00	0.79	0.27	0.18	0.815	0.960	0.896
6.88	0.65	2.43	64200.00	1.78	0.73	0.49	0.508	0.820	0.765
4.92	0.71	3.26	83100.00	2.55	0.86	0.58	0.421	0.751	0.664
2.95	0.48	4.53	123800.00	4.05	1.06	0.71	0.286	0.602	0.466
0.98	0.69	6.17	149800.00	5.48	1.15	0.78	0.222	0.507	0.278
0.12	0.73	7.89	246600.00	7.16	1.40	0.95	0.053	0.154	0.057
Control	0.48	8.01	287900.00	7.53	1.48	1.00	0.000	0.000	0.000
8.85	0.98	1.76	26233.33	0.78	0.28	0.19	0.811	0.959	0.896
6.88	0.89	2.76	63200.00	1.86	0.72	0.49	0.513	0.823	0.753
4.92	0.82	3.38	84600.00	2.56	0.86	0.59	0.415	0.745	0.660
2.95	0.78	4.75	120733.33	3.96	1.04	0.71	0.294	0.613	0.474
0.98	0.88	5.99	147133.33	5.10	1.14	0.77	0.227	0.516	0.323
0.12	0.89	7.92	245000.00	7.03	1.40	0.95	0.055	0.157	0.067

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: 3-nitrophenol

Mean cell volume ( $\mu\text{m}^3$ ): 40.16

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.47	10.25	254000.00	9.78	1.41	1.00	0.000	0.000	0.000
31.34	0.85	1.30	26800.00	0.45	0.29	0.21	0.795	0.951	0.954
15.87	0.63	1.48	41000.00	0.85	0.50	0.36	0.645	0.891	0.913
7.93	0.51	4.95	115300.00	4.44	1.02	0.72	0.279	0.580	0.546
3.97	0.45	8.36	185600.00	7.91	1.26	0.89	0.111	0.286	0.191
1.98	0.46	9.21	234700.00	8.75	1.38	0.97	0.028	0.081	0.105
0.99	0.55	10.07	236300.00	9.52	1.38	0.97	0.026	0.074	0.027
Control	0.45	10.07	233900.00	9.62	1.37	1.00	0.000	0.000	0.000
31.34	0.69	0.96	27800.00	0.27	0.31	0.22	0.775	0.942	0.972
15.87	0.61	1.41	43200.00	0.80	0.53	0.39	0.615	0.871	0.917
7.93	0.49	4.86	91900.00	4.37	0.91	0.66	0.340	0.649	0.546
3.97	0.48	8.25	187500.00	7.77	1.26	0.92	0.080	0.212	0.192
1.98	0.54	9.69	228700.00	9.15	1.36	0.99	0.008	0.024	0.049
0.99	0.54	10.08	230300.00	9.54	1.37	0.99	0.006	0.016	0.008
Control	0.74	10.01	243900.00	9.27	1.39	1.00	0.000	0.000	0.000
31.34	0.80	1.07	40000.00	0.27	0.49	0.35	0.648	0.891	0.971
15.87	0.60	1.60	44000.00	1.00	0.54	0.39	0.614	0.873	0.892
7.93	0.63	5.35	117000.00	4.72	1.03	0.74	0.263	0.554	0.491
3.97	0.59	8.40	194300.00	7.81	1.28	0.92	0.082	0.217	0.157
1.98	0.57	9.40	224100.00	8.83	1.35	0.97	0.030	0.087	0.047
0.99	0.55	9.43	237800.00	8.88	1.38	0.99	0.009	0.027	0.042
Control	0.55	10.11	243933.33	9.56	1.39	1.00	0.000	0.000	0.000
31.34	0.78	1.11	31533.33	0.33	0.36	0.26	0.734	0.928	0.965
15.87	0.61	1.50	42733.33	0.88	0.52	0.38	0.625	0.879	0.908
7.93	0.54	5.05	108066.67	4.51	0.98	0.71	0.292	0.593	0.528
3.97	0.51	8.34	189133.33	7.83	1.27	0.91	0.091	0.239	0.181
1.98	0.52	9.43	229166.67	8.91	1.36	0.98	0.022	0.065	0.068
0.99	0.55	9.86	234800.00	9.31	1.38	0.99	0.014	0.040	0.025

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: 4-nitrophenol

Mean cell volume ( $\mu\text{m}^3$ ): 40.76

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.41	7.95	264500.00	7.54	1.43	1.00	0.000	0.000	0.000
2.37	1.12	1.77	26500.00	0.65	0.28	0.20	0.802	0.954	0.914
1.19	0.53	2.50	29100.00	1.97	0.33	0.23	0.769	0.943	0.739
0.89	0.65	2.54	35100.00	1.89	0.43	0.30	0.704	0.919	0.749
0.59	0.53	2.54	70100.00	2.01	0.77	0.54	0.463	0.779	0.733
0.30	0.44	4.63	118700.00	4.19	1.03	0.72	0.279	0.584	0.444
0.15	0.47	6.88	199800.00	6.41	1.29	0.90	0.098	0.259	0.150
Control	0.41	7.58	298400.00	7.17	1.50	1.00	0.000	0.000	0.000
2.37	1.26	1.87	27600.00	0.61	0.30	0.20	0.796	0.956	0.915
1.19	0.61	2.54	31100.00	1.93	0.36	0.24	0.756	0.943	0.731
0.89	0.69	2.79	38400.00	2.10	0.47	0.31	0.686	0.917	0.707
0.59	0.51	2.76	69900.00	2.25	0.77	0.51	0.485	0.806	0.686
0.30	0.69	4.66	106000.00	3.97	0.98	0.65	0.346	0.679	0.446
0.15	0.53	7.17	221600.00	6.64	1.35	0.90	0.100	0.271	0.074
Control	0.50	7.54	254500.00	7.04	1.42	1.00	0.000	0.000	0.000
2.37	0.68	1.56	27300.00	0.88	0.30	0.21	0.788	0.949	0.875
1.19	0.67	1.91	31900.00	1.24	0.38	0.27	0.733	0.929	0.824
0.89	0.54	2.11	36900.00	1.57	0.45	0.32	0.682	0.909	0.777
0.59	0.56	3.85	71500.00	3.29	0.78	0.55	0.448	0.764	0.533
0.30	0.68	5.15	136500.00	4.47	1.10	0.78	0.220	0.493	0.365
0.15	0.72	6.33	190300.00	5.61	1.27	0.90	0.103	0.268	0.203
Control	0.44	7.69	272466.67	7.25	1.45	1.00	0.000	0.000	0.000
2.37	1.02	1.73	27133.33	0.71	0.30	0.20	0.796	0.953	0.902
1.19	0.60	2.32	30700.00	1.71	0.36	0.25	0.753	0.939	0.764
0.89	0.63	2.48	36800.00	1.85	0.45	0.31	0.690	0.915	0.744
0.59	0.53	3.05	70500.00	2.52	0.77	0.53	0.466	0.784	0.653
0.30	0.60	4.81	120400.00	4.21	1.04	0.72	0.282	0.591	0.419
0.15	0.57	6.79	203900.00	6.22	1.30	0.90	0.100	0.266	0.142

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: 2,4-dinitrophenol

Mean cell volume ( $\mu\text{m}^3$ ): 41.28

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.48	11.05	289000.00	10.57	1.48	1.00	0.000	0.000	0.000
3.58	1.03	1.28	24100.00	0.25	0.24	0.16	0.840	0.967	0.976
2.56	0.87	1.32	30600.00	0.45	0.36	0.24	0.759	0.943	0.957
2.05	1.16	3.17	50800.00	2.01	0.61	0.41	0.588	0.869	0.810
1.54	0.91	3.32	73100.00	2.41	0.79	0.54	0.465	0.788	0.772
1.02	1.01	7.04	101600.00	6.03	0.96	0.65	0.353	0.684	0.430
0.51	1.05	10.99	286200.00	9.94	1.47	1.00	0.003	0.010	0.060
Control	0.39	10.71	256300.00	10.32	1.42	1.00	0.000	0.000	0.000
3.58	1.01	1.33	17800.00	0.32	0.09	0.06	0.940	0.988	0.969
2.56	0.94	1.82	29000.00	0.88	0.33	0.23	0.768	0.942	0.915
2.05	0.46	3.16	52900.00	2.70	0.63	0.44	0.556	0.843	0.738
1.54	0.73	4.03	71900.00	3.30	0.78	0.55	0.448	0.764	0.680
1.02	0.56	6.76	135700.00	6.20	1.10	0.78	0.224	0.500	0.399
0.51	1.01	10.87	199800.00	9.86	1.29	0.91	0.088	0.234	0.045
Control	0.72	10.38	234500.00	9.66	1.37	1.00	0.000	0.000	0.000
3.58	0.46	0.79	16600.00	0.33	0.05	0.04	0.963	0.993	0.966
2.56	0.58	1.82	26500.00	1.24	0.28	0.21	0.793	0.948	0.872
2.05	0.43	3.26	51500.00	2.83	0.62	0.45	0.551	0.834	0.707
1.54	0.69	4.12	69800.00	3.43	0.77	0.56	0.441	0.750	0.645
1.02	0.88	7.46	123900.00	6.58	1.06	0.77	0.232	0.504	0.319
0.51	0.67	10.56	172600.00	9.89	1.22	0.89	0.111	0.282	-0.024
Control	0.53	10.71	259933.33	10.18	1.42	1.00	0.000	0.000	0.000
3.58	0.83	1.13	19500.00	0.30	0.12	0.09	0.908	0.982	0.971
2.56	0.80	1.65	28700.00	0.86	0.32	0.23	0.773	0.944	0.916
2.05	0.68	3.20	51733.33	2.51	0.62	0.44	0.566	0.850	0.753
1.54	0.78	3.82	71600.00	3.05	0.78	0.55	0.452	0.769	0.701
1.02	0.82	7.09	120400.00	6.27	1.04	0.73	0.270	0.570	0.384
0.51	0.91	10.81	219533.33	9.90	1.33	0.93	0.059	0.165	0.028

IR: Inhibition Rate

DO: Dissolved Oxygen

Toxicant: 2,4-dimethylphenol

Mean cell volume ( $\mu\text{m}^3$ ): 39.98

Conc.	Initial DO	Final DO	Final cells	Delta DO	Specific Growth rate	Relative Growth rate	IR on growth rate	IR on final yield	IR on DO
(mg/L)	(mg/L)	(mg/L)	(cells/ml)	(mg/L)					
Control	0.49	9.98	255400.00	9.49	1.42	1.00	0.000	0.000	0.000
68.09	0.68	1.09	25800.00	0.41	0.27	0.19	0.809	0.955	0.957
30.00	0.55	1.30	33200.00	0.75	0.40	0.28	0.720	0.924	0.921
19.54	0.58	5.90	99800.00	5.32	0.95	0.67	0.331	0.647	0.439
14.49	0.59	6.60	147600.00	6.01	1.14	0.81	0.193	0.448	0.367
9.46	0.61	8.56	189100.00	7.95	1.27	0.89	0.106	0.276	0.162
6.27	0.60	9.59	199200.00	8.99	1.29	0.91	0.088	0.234	0.053
Control	0.48	9.96	276500.00	9.48	1.46	1.00	0.000	0.000	0.000
68.09	0.90	1.12	26300.00	0.22	0.28	0.19	0.807	0.957	0.977
30.00	0.56	1.41	35000.00	0.85	0.42	0.29	0.709	0.924	0.910
19.54	0.54	5.78	97300.00	5.24	0.93	0.64	0.358	0.685	0.447
14.49	0.55	6.49	148500.00	5.94	1.15	0.79	0.213	0.489	0.373
9.46	0.59	8.49	184600.00	7.90	1.26	0.86	0.139	0.351	0.167
6.27	0.62	9.54	198900.00	8.92	1.29	0.89	0.113	0.297	0.059
Control	0.46	9.45	263400.00	8.99	1.43	1.00	0.000	0.000	0.000
68.09	0.89	1.28	25900.00	0.39	0.27	0.19	0.809	0.956	0.957
30.00	0.96	1.86	34800.00	0.90	0.42	0.29	0.706	0.920	0.900
19.54	0.58	5.69	98900.00	5.11	0.94	0.66	0.342	0.662	0.432
14.49	0.59	6.55	146900.00	5.96	1.14	0.80	0.204	0.469	0.337
9.46	0.41	8.29	185900.00	7.88	1.26	0.88	0.122	0.312	0.123
6.27	0.59	9.48	196400.00	8.89	1.29	0.90	0.102	0.270	0.011
Control	0.48	9.80	265100.00	9.32	1.44	1.00	0.000	0.000	0.000
68.09	0.82	1.16	26000.00	0.34	0.28	0.19	0.808	0.956	0.964
30.00	0.69	1.52	34333.33	0.83	0.41	0.29	0.712	0.923	0.911
19.54	0.57	5.79	98666.67	5.22	0.94	0.66	0.344	0.665	0.440
14.49	0.58	6.55	147666.67	5.97	1.14	0.80	0.204	0.470	0.359
9.46	0.54	8.45	186533.33	7.91	1.26	0.88	0.122	0.314	0.151
6.27	0.60	9.54	198166.67	8.93	1.29	0.90	0.101	0.268	0.041

IR: Inhibition Rate

DO: Dissolved Oxygen