

Table S1. The results of the 3-parameter log-logistic model fittings (DF – degrees of freedom, RSS - residual sum of squares, F-value, p-value and Pseudo R²), and the calculated 20% (EC₂₀) and 50% effective concentrations (EC₅₀) for frond number- (RGR_{frond}) and frond area-based relative growth rates (RGR_{area}), dark adapted- (F_v/F_o) and light adapted photochemical efficiency (Y(II)) as estimates ± standard errors of estimates.

Toxicant	Parameter	DF	RSS	F-value	p-value	Pseudo R ²	EC20 (mg L ⁻¹ ±SE)	EC50 (mg L ⁻¹ ±SE)
Ag	RGR _{frond}	169	0.69	2.62	<0.005	0.76	0.016±0.003	0.11±0.02
	RGR _{area}	169	0.26	14.94	<0.001	0.92	0.0001±0.00006	0.005±0.001
	F _v /F _o	169	5.27	1.18	0.300	0.71	0.31±0.03*	1.27±0.43*
	Y(II)	169	0.23	0.31	0.990	0.85	0.14±0.01*	0.55±0.07*
As(III)	RGR _{frond}	69	0.15	0.68	0.670	0.96	2.59±0.12	3.21±0.17
	RGR _{area}	69	0.19	2.94	0.010	0.94	0.90±0.12	1.77±0.15
	F _v /F _o	69	2.85	1.22	0.310	0.99	0.93±0.05	1.84±0.06
	Y(II)	69	0.11	25.55	<0.001	0.99	2.14±0.10	2.80±0.06
As(V)	RGR _{frond}	69	0.20	0.40	0.880	0.73	41.43±8.07	132.18±23.91*
	RGR _{area}	69	0.11	0.95	0.460	0.91	24.75±3.02	60.70±4.41
	F _v /F _o	69	4.50	1.08	0.380	0.93	14.41±1.62	47.15±2.68
	Y(II)	69	0.10	2.55	0.030	0.96	16.10±1.61	54.33±3.01
Cd	RGR _{frond}	69	0.17	2.97	0.010	0.95	1.59±0.22	2.58±0.17
	RGR _{area}	69	1.02	0.82	0.560	0.97	0.44±0.04	0.73±0.04
	F _v /F _o	69	8.12	11.05	<0.001	0.96	0.54±0.11	2.45±0.25
	Y(II)	69	0.25	2.47	0.030	0.93	0.78±0.17	3.59±0.38
Cr(III)	RGR _{frond}	69	0.17	0.66	0.680	0.96	5.68±0.61	9.02±0.60
	RGR _{area}	69	0.05	1.05	0.400	0.98	4.21±0.31	6.22±0.23
	F _v /F _o	69	8.72	6.01	<0.001	0.96	7.52±0.80	12.35±0.74
	Y(II)	69	0.24	1.34	0.250	0.97	12.92±1.11	19.92±0.99
Cr(VI)	RGR _{frond}	132	0.32	4.60	<0.001	0.87	2.69±0.36	4.69±0.32
	RGR _{area}	132	0.34	22.01	<0.001	0.89	0.02±0.002	0.66±0.15
	F _v /F _o	132	6.98	10.01	<0.001	0.98	0.09±0.008	0.42±0.02
	Y(II)	132	0.27	6.87	<0.001	0.97	0.18±0.03	1.28±0.1

Cu	RGR _{frond}	69	0.14	1.18	0.330	0.97	0.40±0.04	0.75±0.04
	RGR _{area}	69	0.03	1.75	0.120	0.99	0.29±0.01	0.37±0.01
	F _v /F _o	69	4.36	22.54	<0.001	0.98	0.45±0.05	1.23±0.08
	Y(II)	69	0.21	11.42	<0.001	0.97	0.90±0.10	1.86±0.11
Hg	RGR _{frond}	69	0.26	9.24	<0.001	0.92	0.56±0.33	1.47±0.38
	RGR _{area}	69	0.10	9.31	<0.001	0.96	0.05±0.01	0.24±0.03
	F _v /F _o	69	3.72	1.58	0.170	0.97	2.60±0.14	4.87±0.17
	Y(II)	69	0.11	2.05	0.070	0.98	2.32±0.15	4.30±0.15
Ni	RGR _{frond}	69	0.17	0.21	0.970	0.94	2.27±0.20	3.44±0.20
	RGR _{area}	69	0.08	2.43	0.030	0.96	1.77±0.20	3.28±0.20
	F _v /F _o	69	6.36	28.93	<0.001	0.94	2.73±0.47	5.81±0.35
	Y(II)	69	0.16	2.80	0.010	0.95	5.51±0.26	7.21±0.25
Se(IV)	RGR _{frond}	69	0.16	1.00	0.430	0.93	4.27±1.68	4.73±0.64
	RGR _{area}	69	1.36	15.4	<0.001	0.90	4.01±1.87	4.41±1.18
	F _v /F _o	69	4.20	0.31	0.930	0.96	4.62±0.17	6.48±0.19
	Y(II)	69	0.06	6.56	<0.001	0.95	4.10±0.25	9.73±0.42
Se(VI)	RGR _{frond}	131	0.34	2.16	0.020	0.84	3.26±0.47	4.78±0.35
	RGR _{area}	131	0.48	12.18	<0.001	0.80	0.26±0.15	1.73±0.42
	F _v /F _o	131	5.06	0.46	0.920	0.91	5.96±0.32	10.39±0.34*
	Y(II)	131	0.29	3.24	<0.001	0.87	4.83±0.59	9.40±0.47
Zn	RGR _{frond}	69	0.21	1.76	0.120	0.89	11.28±2.93	31.23±3.90
	RGR _{area}	69	0.10	7.37	<0.001	0.93	0.27±0.10	3.88±0.78
	F _v /F _o	69	4.78	13.25	<0.001	0.96	24.42±2.41	45.31±2.28
	Y(II)	69	0.12	4.46	<0.001	0.84	24.85±9.53	350.56±128.85*

* Extrapolated values from the model fittings when the calculated effective concentrations were out of the applied concentration range.