

Table S7. Synergism of different UV pre-irradiation time to inactivate chironomid larvae

Inactivation Method	Inactivation Count at 8 h (log)	S_n	$k_{\max}(\text{h}^{-1})$	R^2	S_k
UV alone	0.10	-	0.012	0.996	-
ClO_2 alone	0.47	-	0.098	0.990	-
Direct UV+ ClO_2	1.00	1.698	0.165	0.984	1.506
Pre-irradiation (30 min)	1.05	1.854	0.175	0.990	1.594
Pre-irradiation (60 min)	1.35	2.386	0.185	0.993	1.689
Pre-irradiation (90 min)	1.55	2.738	0.184	0.982	1.678
Pre-irradiation (120 min)	2.07	3.647	0.199	0.972	1.817