Electronic Supplementary Information

Joint toxic effects of polystyrene nanoparticles and organochlorine pesticides (chlordane and hexachlorocyclohexane) on *Caenorhabditis elegans*

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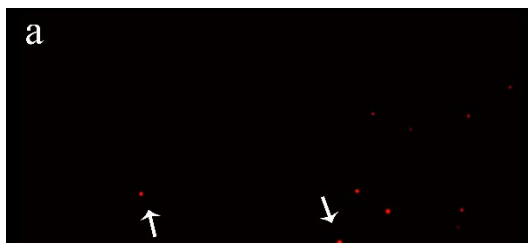**Supplementary Information includes 1 figure and 3 tables:**

Fig. S1. Distribution of polystyrene nanoplastics in the exposure media. Images of nanoplastics (red fluorescence) in the exposure media at 0 h (a), 24 h (b) and 48 h (c) under simulative exposure condition (1.0 mg L^{-1} PS nanoplastics), respectively. White arrows are pointing to some of fluorescence-labeled NPs. Bar =10 μm.

Table. S1. Nominal and actual concentrations of OCPs in single and joint exposure solutions (mg L^{-1}).

Nominal concentration	Actual concentration			
	Chlordane		HCH	
	Single	Joint	Single	Joint
0.1	0.06 ± 0.01	0.13 ± 0.02	0.07 ± 0.01	0.09 ± 0.01
0.5	0.31 ± 0.08	0.42 ± 0.07	0.31 ± 0.10	0.35 ± 0.04
1.0	0.76 ± 0.04	0.91 ± 0.11	0.66 ± 0.03	0.76 ± 0.03
5.0	3.81 ± 0.78	4.81 ± 0.17	3.46 ± 0.01	4.30 ± 0.02
10.0	8.10 ± 0.26	9.35 ± 0.33	9.81 ± 0.99	10.13 ± 0.06

Data: mean ± SE, n=3

Table S2 Statistical results of chlordane or/and PS nanoparticles influencing the expression of *gst-4::GFP* in CL2166 *C. elegans* (*p* value, compared by t-test).

Groups		2nd d Cont.	2nd d PS NP	4th d Cont.	4th d PS NP	6th d Cont.	6th d PS NP
PS NP		0.9924	/	0.3233	/	0.1674	/
Chl (mg L^{-1})	0.1	0.9997	/	0.8877	/	0.2872	/
	0.5	0.0076	/	0.0010	/	0.0009	/
	1.0	0.0001	/	0.0001	/	0.0001	/
(PS NP)-Chl (mg L^{-1})	0.1	0.8017	0.8416	0.1863	0.9885	0.0001	0.0058
	0.5	0.0523	0.0307	0.0001	0.0471	0.0001	0.0004
	1.0	0.0006	0.0001	0.0001	0.0001	0.0001	0.0001

Table S3 Statistical results of HCH or/and PS nanoparticles influencing the expression of *gst-4::GFP* in CL2166 *C. elegans* (*p* value, compared by t-test)

Groups		2nd d Cont.	2nd d PS NP	4th d Cont.	4th d PS NP	6th d Cont.	6th d PS NP
PS NP		0.9918	/	0.5264	/	0.5356	/
HCH (mg L^{-1})	0.1	0.0962	/	0.0514	/	0.1063	/
	0.5	0.0034	/	0.0056	/	0.0110	/
	1.0	0.0001	/	0.0001	/	0.0002	/
(PS NP)-HCH (mg L^{-1})	0.1	0.9378	0.9896	0.2205	0.9233	0.0473	0.5005
	0.5	0.2028	0.3697	0.0072	0.1900	0.0092	0.2031
	1.0	0.0040	0.0189	0.0001	0.0017	0.0001	0.0001