Table S1. Analysis of variance (ANOVA) of the effect of C60 fullerenol in various concentrations into the soil on the agrochemical indicators of the state of the soil

Trait	df	MS	F-value	P-value
Ammonium nitrogen	3	2.711	30.92	0.001
Nitrate nitrogen	3	0.077	71.00	0.001
Phosphorus mobile in terms of P_2O_5	3	1817.0	37.54	0.001
Potassium mobile in terms of K_2O	3	51.00	8.991	0.01
Calcium exchangeable	3	0.227	4.073	0.05
Magnesium exchangeable	3	1.657	691.7	0.001
Iron mobile	3	3.150	8.088	0.01
Copper mobile	3	0.003	21.20	0.001
Zinc mobile	3	3.292	128.8	0.001
Manganese mobile	3	0.963	7.349	0.01

Table S2. Analysis of variance (ANOVA) of the effect of C60 fullerenol in various concentrations into the soil on the studied traits of cucumber plants (hybrid F_1 Neva) grown under controlled conditions

Trait		df	MS	F-value	P-value
Photosynthetic pigments content of cucumber plants leaves (hybrid F_1 Neva)					
Chlorophyll a		3	78.18	5.516	0.05
Chlorophyll b		3	13.59	6.980	0.01
Total chlorophyll		3	150.1	5.640	0.05
Carotenoid		3	7.646	5.563	0.05
Biometric indicators of cucumber plants (hybrid F_1 Neva)					
Number of leaves		3	0.170	1.889	ns
Leaves square		3	443.9	7.91	0.01
Stem cross-sectional area		3	3.328	3.568	ns
Leaves	Raw mass	3	0.1005	1.638	ns
	Dry mass	3	0.0092	1.490	ns
	% dry matter	3	3.128	48.1	0.001
Stems	Raw mass	3	0.0255	0.510	ns
	Dry mass	3	0.0028	5.375	0.05
	% dry matter	3	0.370	7.05	0.01
Roots	Raw mass	3	0.0922	6.92	0.01
	Dry mass	3	0.0222	15.10	0.001
	% dry matter	3	0.500	12.50	0.01
Content of antioxidant enzymes in the roots and leaves of cucumber plants (hybrid F_1 Neva)					
Leaves	POX activity of peroxidase	3	9.028	10.673	0.01
	CAT activity of catalase	3	6161	24.173	0.001
	LPO intensity of lipid peroxidation	3	0.000025	73.83	0.001
Roots	POX activity of peroxidase	3	515.55	107.24	0.001
	CAT activity of catalase	3	1310.22	438.89	0.001
	LPO intensity of lipid peroxidation	3	0.000007	15.331	0.001
Content of the studied microelements in cucumber plants (hybrid F_1 Neva) and soil					

	Fe	3	586.65	58.756	0.001
Leaves	Mn	3	168.01	10.596	0.01
	Zn	3	110.41	21.445	0.001
	Fe	3	384.93	31.565	0.001
Stems	Mn	3	141.49	10.331	0.01
	Zn	3	90.17	21.958	0.001
	Fe	3	101.40	2.617	ns
Roots	Mn	3	1053.1	33.817	0.001
	Zn	3	831.39	69.117	0.001
	Fe	3	3.150	8.088	0.01
Soil	Mn	3	0.9635	7.349	0.01
	Zn	3	3.2921	128.88	0.001

Table S3. Analysis of variance (ANOVA) of the effect of the introduction to the nutrient solution of mineral selenium-containing substances and their compositions with amino acid derivatives of C60 fullereneon on biomass of edible part of Chinese cabbage plants cv. Daqingkou and on the selenium content in aerial parts and roots

Trait		df	MS	F-value	P-value
Aboveground part	Raw mass	3	7911.2	553.51	0.001
	Selenium content	3	1206.2	109.00	0.001
Roots	Raw mass	3	578.42	562.79	0.001
	Selenium content	3	1010.9	68.098	0.001

Table S4. Analysis of variance (ANOVA) of the effect for foliar treatment with solutions of selenium-containing substances and compositions on fruit quality of tomato cv. Natasha

Trait	df	MS	F-value	P-value
% dry matter	3	0.1709	1.956	ns
Total saccharide	3	49.68	11.849	0.01
Monosaccharide	3	60.09	15.747	0.001
Disaccharide	3	5.248	418.33	0.001
Vitamin C	3	25.30	19.401	0.001
Carotene	3	656.2	59.63	0.001

Table S5. Analysis of variance (ANOVA) of the effect of mono- and mixed solutions of fullerenol C_{60} (1 mg/l) or C_{70} (0.1 mg/l) and of zinc sulfate (160.0 mg/l) on some indicators of the quality of fruits in cucumber plants (hybrid F_1 Neva) fruits

Trait	df	MS	F-value	P-value
Raw ash	5	0.635	5.19	0.01
N	5	0.0953	0.631	ns
P	5	0.00225	0.0796	ns
K	5	0.2293	1.953	ns
Ca	5	0.0170	6.623	0.01
Mg	5	0.00089	0.921	ns
Fe	5	971.75	49.66	0.001
Mn	5	27.14	3.003	ns
Cu	5	143.42	772.7	0.001
Zn	5	122.50	829.9	0.001
% dry matter	5	0.0960	0.096	ns
Vitamin C	5	0.545	0.545	ns

Nitrates	5	4124.9	4124.9	0.001
Total saccharide	5	11.09	11.09	ns
Monosaccharide	5	19.04	19.04	ns
Disaccharide	5	1.5080	1.508	0.001

Table S6. Analysis of variance (ANOVA) of the effect of mono- and mixed solutions of fullerenol C_{60} (1 mg/l) or C_{70} (0.1 mg/l) and of zinc sulfate (160.0 mg/l) on growth indicators of cucumber plants (hybrid F_1 Neva) fruits

Trait		df	MS	F-value	P-value
Leaves square		5	300926	6.132	0.01
Stem cross-sectional area		5	62389	6.465	0.01
Leaves	Raw mass	5	254	0.1037	ns
	Dry mass	5	8.57	0.755	ns
	% dry matter	5	0.557	3.98	0.05
Stems	Raw mass	5	456	0.666	ns
	Dry mass	5	10.589	1.7421	ns
	% dry matter	5	0.4970	7.646	0.01