

## ESI

Table ES11 Properties of the stock suspensions and the diluted mixture.

particle	primary particle size [nm]	average diameter suspension [nm]	PDI	zeta potential [mV]
Ag	35	772	0.3	-41.7
Al	50-70	499	0.2	-19.8
Sb <sub>2</sub> O <sub>3</sub>	90-210	2318	0.3	-30.2
SnO <sub>2</sub>	80	533	0.2	-5.5
TiO <sub>2</sub>	25	585	0.3	-13.2
ZnO	20	831	0.3	-29.3
Mixture	20-210	979	0.4	-21.0

Table ES12 Attachment factors (mean value after incubation/blank value) of three different organisms after incubation with 6 different nanoparticles (green < 20; yellow 21 -100 and red > 100).

	<i>A. congensis</i>	<i>A. nana</i>	<i>Lemna</i>	<i>D. magna</i>
Al	9	2	9	14
Ti	40	4	480	111
Zn	11	15	50	5
Sn	79	18	24	9
Sb	1151	1487	80	43
Ag	255	29	466	135

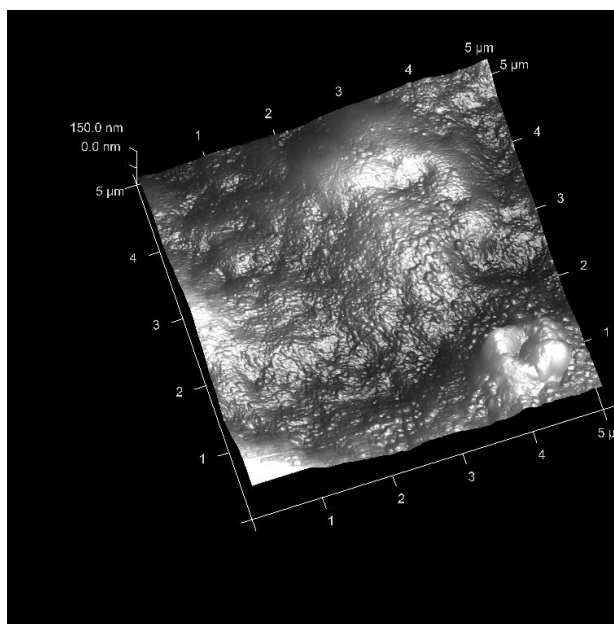


Figure ES11 Three dimensional height overview image of the surface of a blank disc of *A. nana* (5 μm x 5 μm x 150 nm).

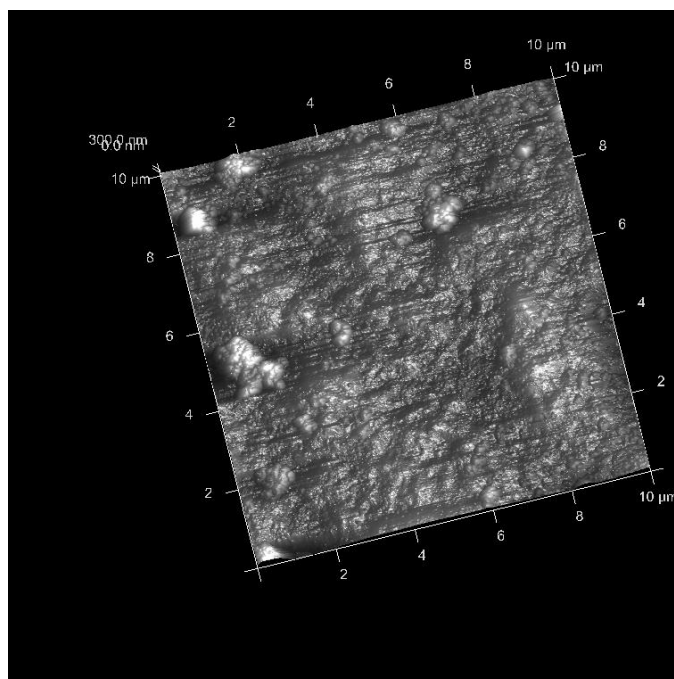
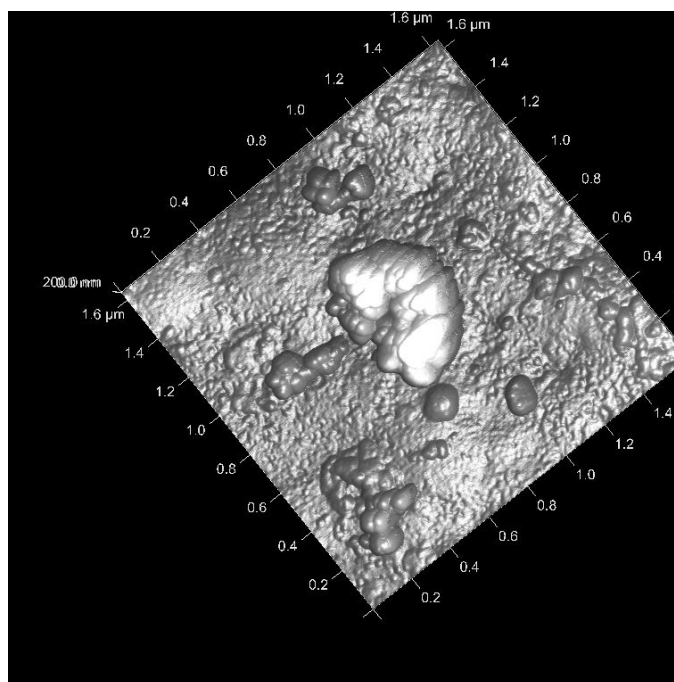


Figure ESI2 Three dimensional height overview image of the surface of a disc of *A. nana* after incubation (10  $\mu\text{m}$  x 10  $\mu\text{m}$  x 300 nm).



5 Figure ESI3 Three dimensional height image with nano structured clusters of the surface of a disc of *A. nana* after incubation (1.6  $\mu\text{m}$  x 1.6  $\mu\text{m}$  x 200 nm).