

# Supplementary Materials: Impacts of Longer-Term Exposure to AuNPs on Two Soil Ecotoxicological Model Species

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**Table S1.** Characterization of the water suspension of gold nanoparticles (AuNPs), stabilized with polyvinylpyrrolidone (PVP) used in the experiments. DLS: dynamic light scattering; ICP-OES: inductively coupled plasma optical emission spectrometry; UV-Vis: Ultraviolet-visible spectroscopy; wt: weight; Pd: Polydispersity; kcps: count rate;  $\sigma$ : standard deviation; n/a: not available.

Characteristics		Technique			
Complete formulation	Gold (Au 0,54 % wt)				ICP-OES
	PVP (0,27 ± 0,5 %wt)				
Dispersant medium	Water solution; Sodium citrate: 1 mM				n/a
Z-average (nm)	27.69				DLS
Pd Index	0.276				DLS
Polydispersity (nm)	14.5				DLS
Polydispersity (%)	52.5				DLS
Derived kcps	127.6				DLS
ξ-potential (mV)	-14.4 ± 2.4				DLS
Absorption peak (nm)	525				UV-Vis
Size Distribution results					
	Size (d.nm)	% Int	σ	%Pd	
Peak 1	37.90	95.0	15.06	39.7	DLS
Peak 2	3.091	5.0	0.7931	25.7	DLS

**Table S2.** Variation of the soil pH (0.01 M CaCl<sub>2</sub>) per test condition, species and exposure time (day 0, 28 and 56).

Concentration (mg/kg)	<i>E. crypticus</i>			<i>F. candida</i>		
	Day			Day		
	0	28	56	0	28	56
<b>0</b>	6.2	5.72	5.41	5.25	5.15	4.69
<b>dispersant</b>	6.21	5.96	5.37	5.02	5.05	4.46
<b>10</b>	6.27	6.49	6.39	4.97	5.12	4.57
<b>100</b>	6.25	6.38	6.41	4.94	5.21	4.78
<b>200</b>	6.27	6.34	6.38	4.95	5.21	5.05
<b>1000</b>	6.24	6.25	6.11	4.91	5.22	5.08