

Supplementary figures and table

Fig. S1. Graphical representation of sample preparation for quantization of total zinc and dissolved zinc ions in the microcosms.

Fig. S2. Scanning electron microscopy (SEM) images of interaction of (a) 30 nm ZnO, (b) 90 nm ZnO, (c) 200 nm ZnO NPs and the aquatic hyphomycetes present on the leaf litter.

Fig. S3. Characterization of ZnO NPs (a) UV-vis spectra and (b) ζ -potential in the microcosms.

Fig. S4. Dynamic solubility of ZnO NPs in the microcosms of litter decomposition.

Table S1 Particle diameter characterization of ZnO NPs in the microcosms. Standard deviations refer to three analytical replicates.

Fig. S1.

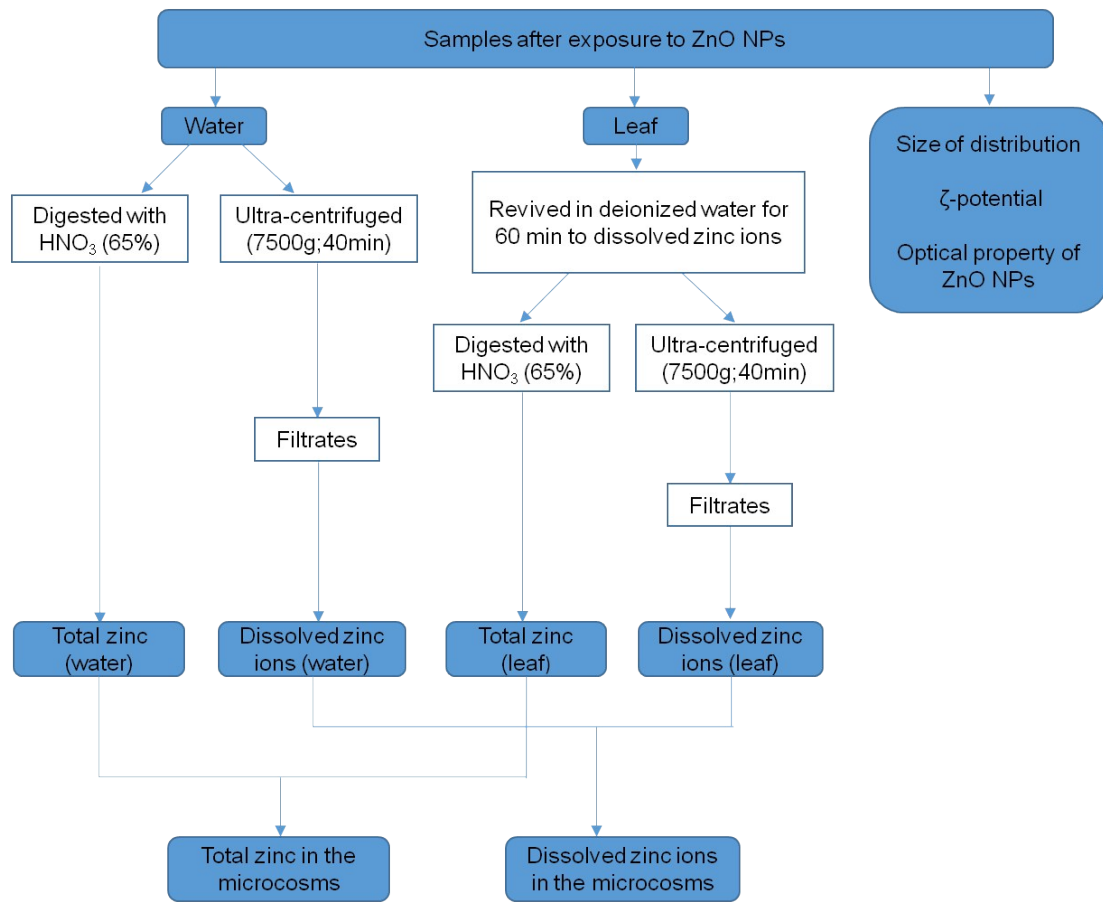


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Fig. S2.

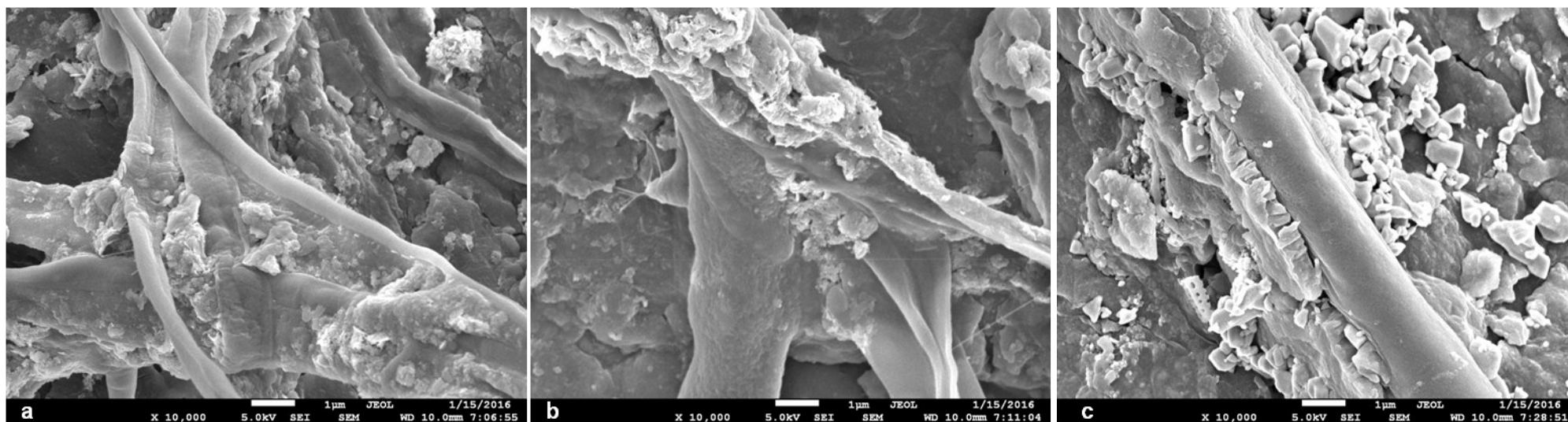


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Fig. S3.

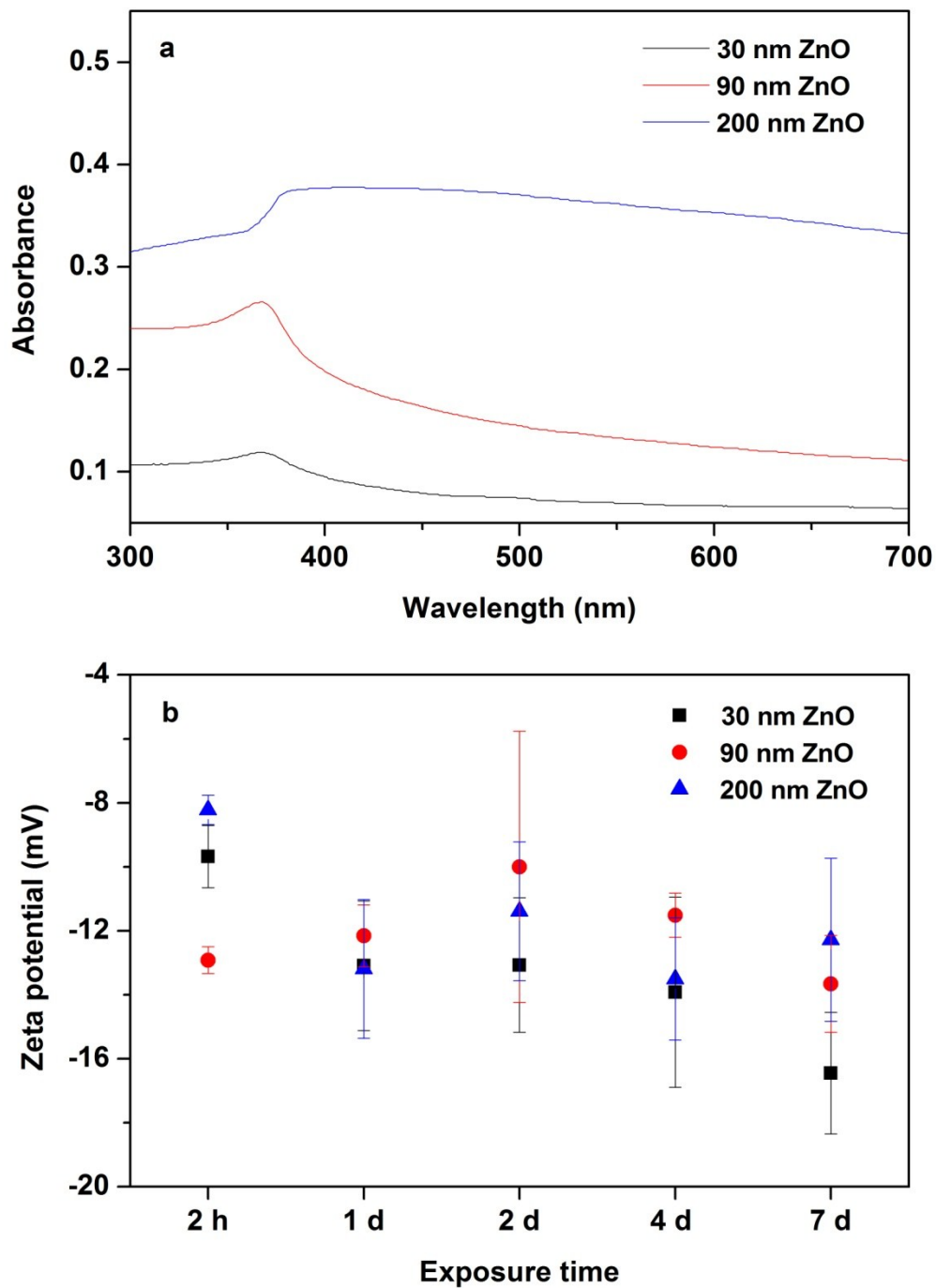


Fig. S3. Characterization of ZnO NPs (a) UV-vis spectra and (b) ζ -potential in the microcosms.

Fig.S4.

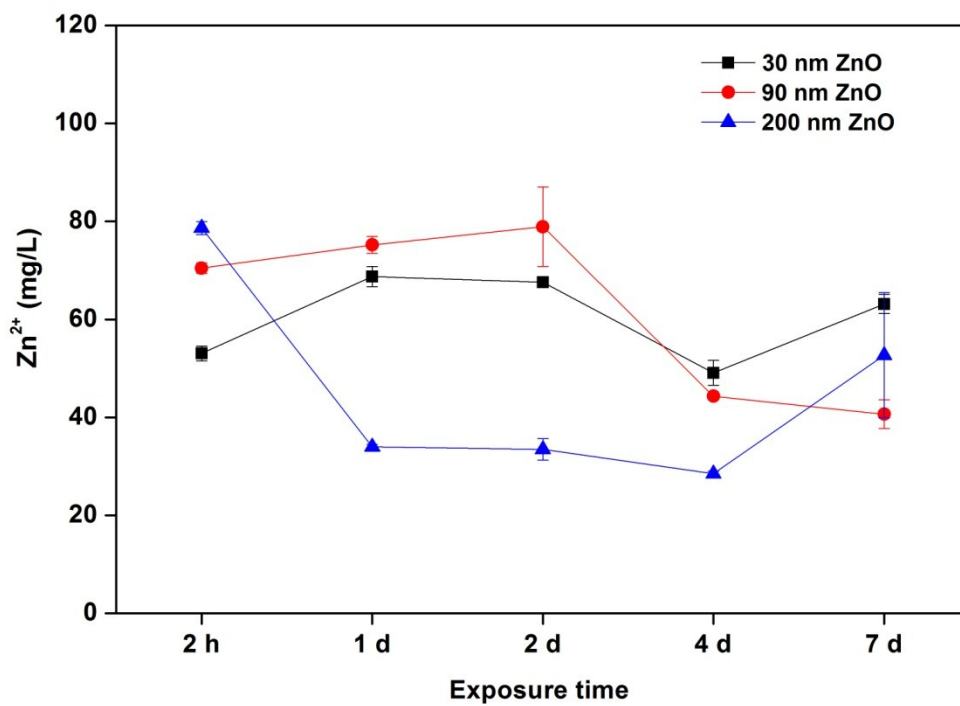


Fig. S4. Dynamic solubility of ZnO NPs in the microcosms of litter decomposition.

Table S1

Particle diameter characterization of ZnO NPs in the microcosms.

Exposure time	Size distribution (μm)		
	30 nm ZnO	90 nm ZnO	200 nm ZnO
2 hour	45.86 \pm 7.97	26.55 \pm 18.78	42.82 \pm 40.11
1 day	8.62 \pm 6.93	28.9 \pm 19.17	39.12 \pm 32.37
2 day	17.14 \pm 16.48	26.10 \pm 26.04	80.80 \pm 63.70
4 day	34.90 \pm 27.52	58.80 \pm 52.41	20.40 \pm 18.71
7 day	25.43 \pm 18.48	32.49 \pm 16.78	31.56 \pm 20.17

Note: Standard deviations refer to three analytical replicates.