

Supplementary materials

Table S1 Assay methods of extracellular enzyme activities.

Enzyme	Abbreviation	Substrate
Acid phosphatase	AP	pNP-phosphate
β -glucosidase	BG	pNP- β -glucopyranoside
Cellobiohydrolase	CBH	pNP-cellobioside
N-acetylglucosaminidase	NAG	pNP- β -N-acetylglucosaminide
Leucine-aminopeptidase	LAP	leucine p-nitroanilide
Glycine-aminopeptidase	GAP	glycine p-nitroanilide
Polyphenol oxidase	PPO	L-DOPA
Peroxidase	POD	L-DOPA

Fig. S1.

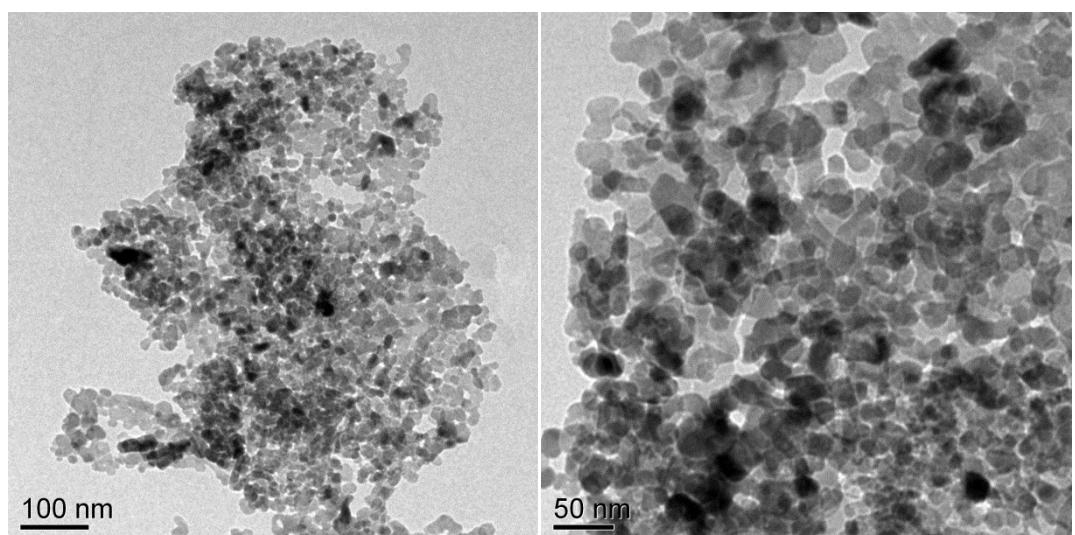


Fig. S1. Transmission electron microscopy images of stocks of ZnO NPs.

Fig. S2.

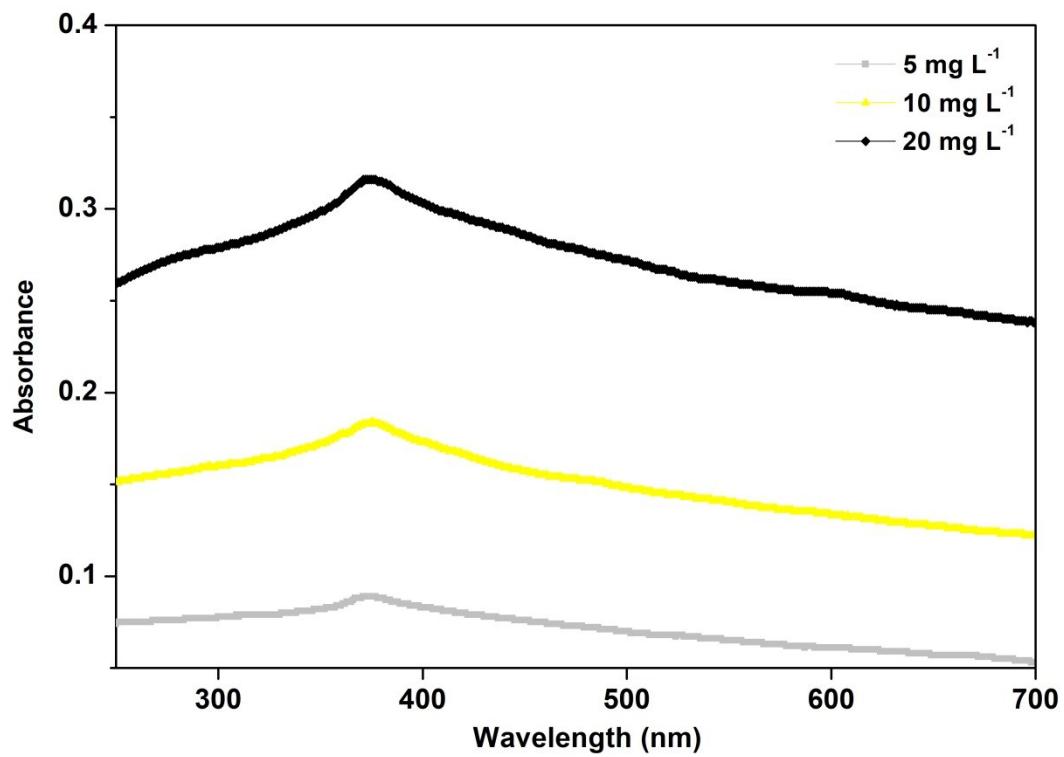


Fig. S2. UV-vis spectra of ZnO NPs in the microcosms.