

Supplementary materials

# Understanding Macrophage Interaction with Antimony-Doped Tin Oxide Plasmonic Nanoparticles

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**Table S1.** DLS measured Zeta potential and hydrodynamic diameter distributions of ATO NPs in Milli-Q water.

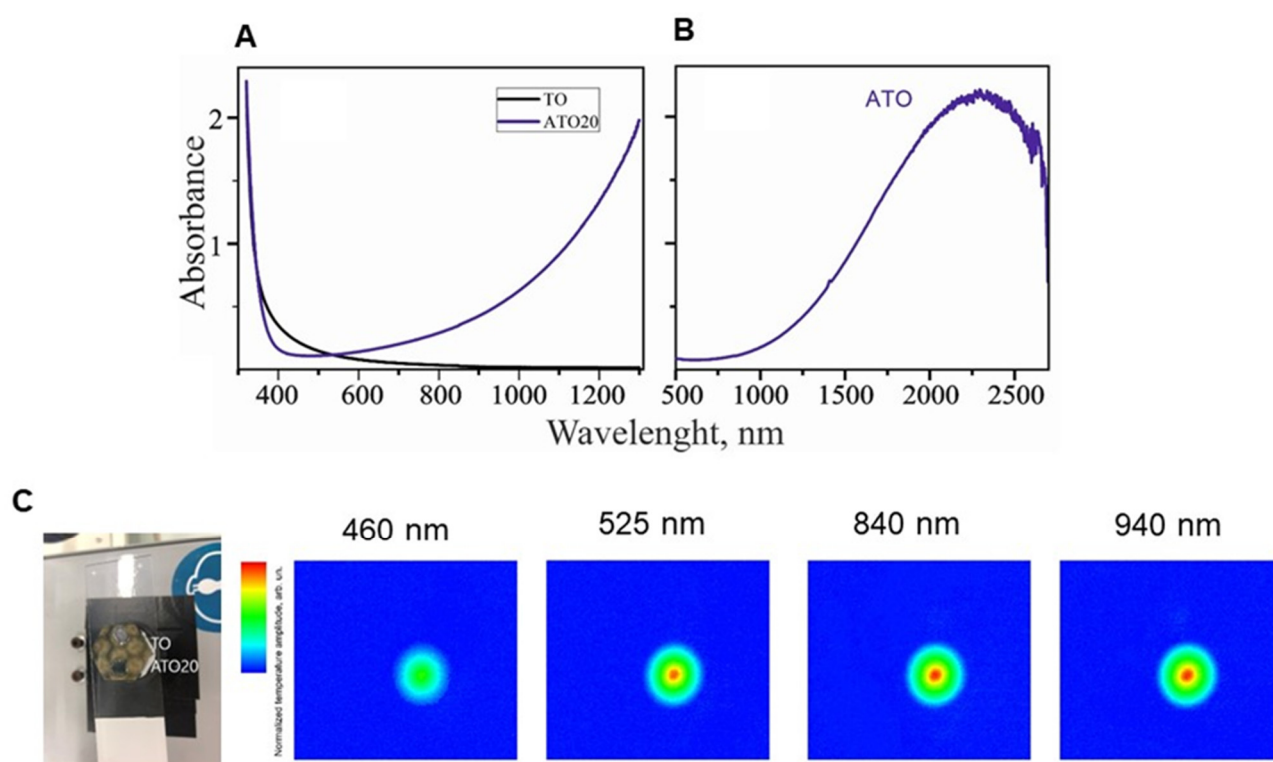
ATO NP concentration, µg/mL	D <sub>h</sub> , nm	PDI	ζ, meV
25	46± 2	0.184	-31.0±1.3
100	44± 1	0.141	-32.3±1.9

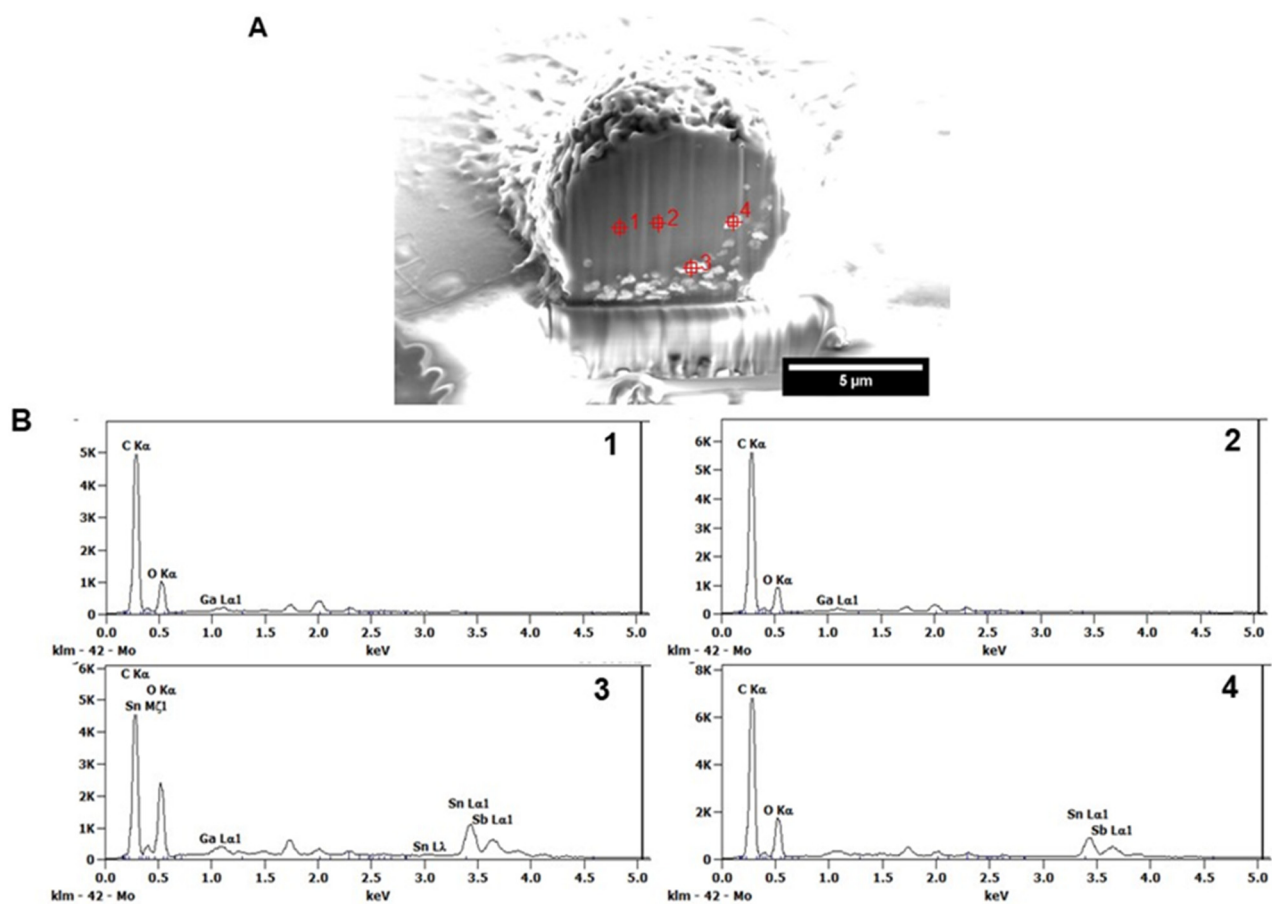
**Table S2.** XRD data (lattice parameters and crystallite sizes variation) of the ATO (TO) NCs.

	TO (0% Sb)	ATO (20% Sb)
Lattice parameters JCPDS #41-1445 for cassiterite deducted from Bragg Eq.		
$\sqrt{\frac{a^2}{h^2 + k^2} + \frac{c^2}{l^2}} = d_{hkl} = \frac{\lambda}{2\sin(\theta)}$		
a, nm	0.4695	0.4678
c, nm	0.3201	0.3186
Crystallite sizes, Deducted for (110) from Scherrer Eq.		
$D = \frac{0.9 \lambda}{\Delta(2\theta)\cos(\theta)}, \text{ nm}$	11.44	8.08

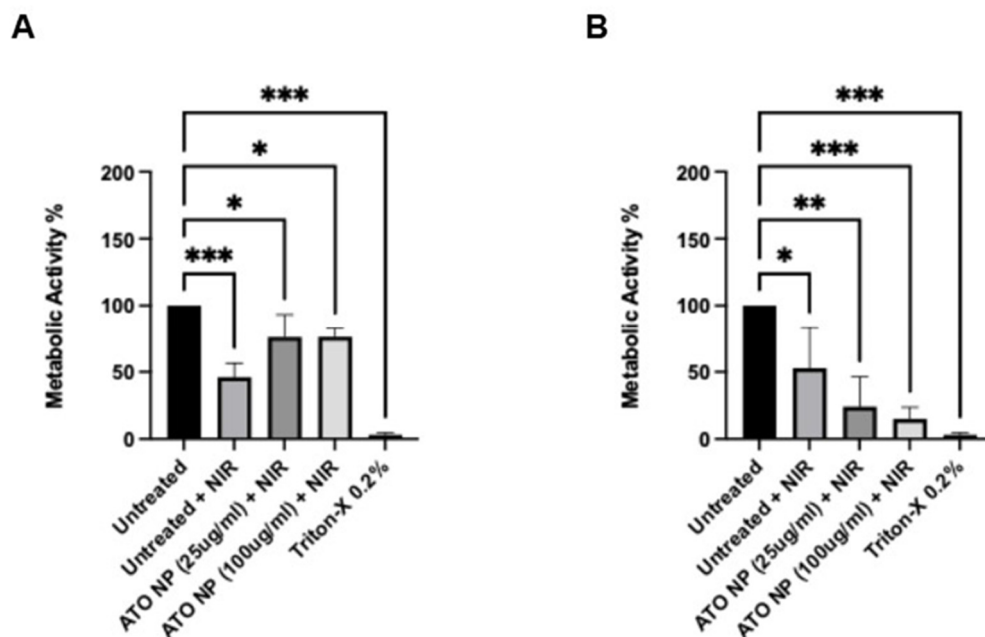
**Table S3.** Endotoxin levels of ATO NPs using LAL assay.

ATO NP concentration, $\mu\text{g/mL}$	EL, EU/mL
25	0.132
100	0.300

**Figure S1.** UV-vis-NIR absorbance spectra of (A): TO/ATO NP solutions (10 mg/mL) in water and (B): ATO NP solution (0.2 mg/mL) in TCE; (C): LIT thermal maps of TO/ATO NPs, drop-casted on a glass cover (see left-hand side photo) under diverse monochrome power-normalized LED excitations.



**Figure S2.** (A): FIB-SEM cross-section with locations of EDX probes of a cell-ATO nanoparticles (25  $\mu\text{g/mL}$ ) internalization; (B): Elemental probes confirm the absence (points 1 and 2) and the presence (points 3 and 4) of internalized ATO nanoparticles at the specific locations inside the cell.



**Figure S3.** Cell viability of J774A.1 macrophages 24 h after the NIR laser (1064 nm) irradiation using the WST-1 assay. (A): Laser power 10 W/cm<sup>2</sup>, time of irradiation 1 min; (B): Laser power 10 W/cm<sup>2</sup>, time of irradiation 2.5 min; Data are shown as means  $\pm$  SD. n=3. The statistical analysis was conducted using one-way ANOVA followed by Dunnett's multiple comparisons test with a single pooled variance, p<0.05 (\*) and p<0.001 (\*\*\*) compared to Untreated.