

Supplementary information

Mechanistic insight to ROS and neutral lipid alteration induced toxicity in human model with fins (*Danio rerio*) by industrially synthesized Titanium dioxide nanoparticles.

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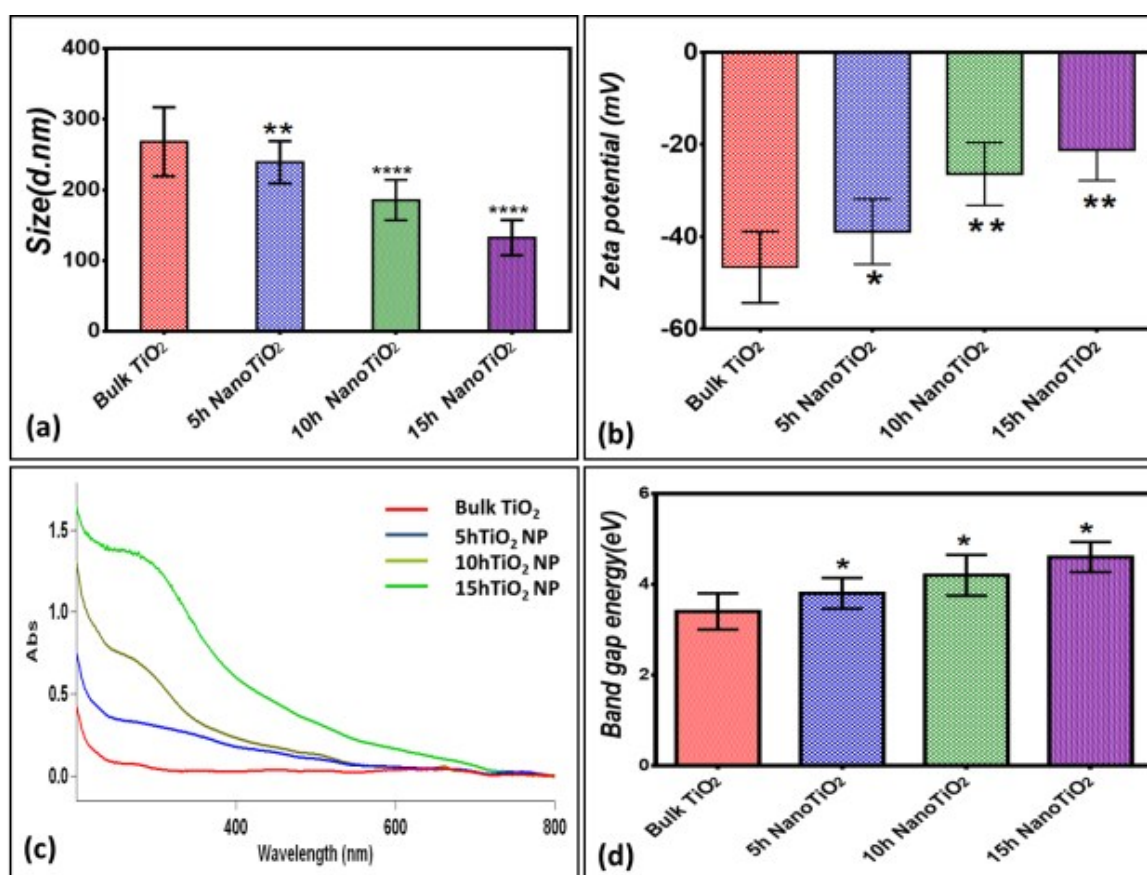


Figure S1. Characterization of TiO₂ nanoparticles prepared by HEBM method (a) Hydrodynamic diameter (nm) (b) zeta potential (c) UV-visible spectrum (d) Band energy gap derived from the UV-Visible spectrum. All the parameters were determined by all four types of nanoparticles suspended in aqueous medium. Hydrodynamic diameter and zeta potential data are represented as mean \pm SD of three independent measurements; *P<0.05 denotes the significant change from Bulk particles, Number of * presents the extent of significance

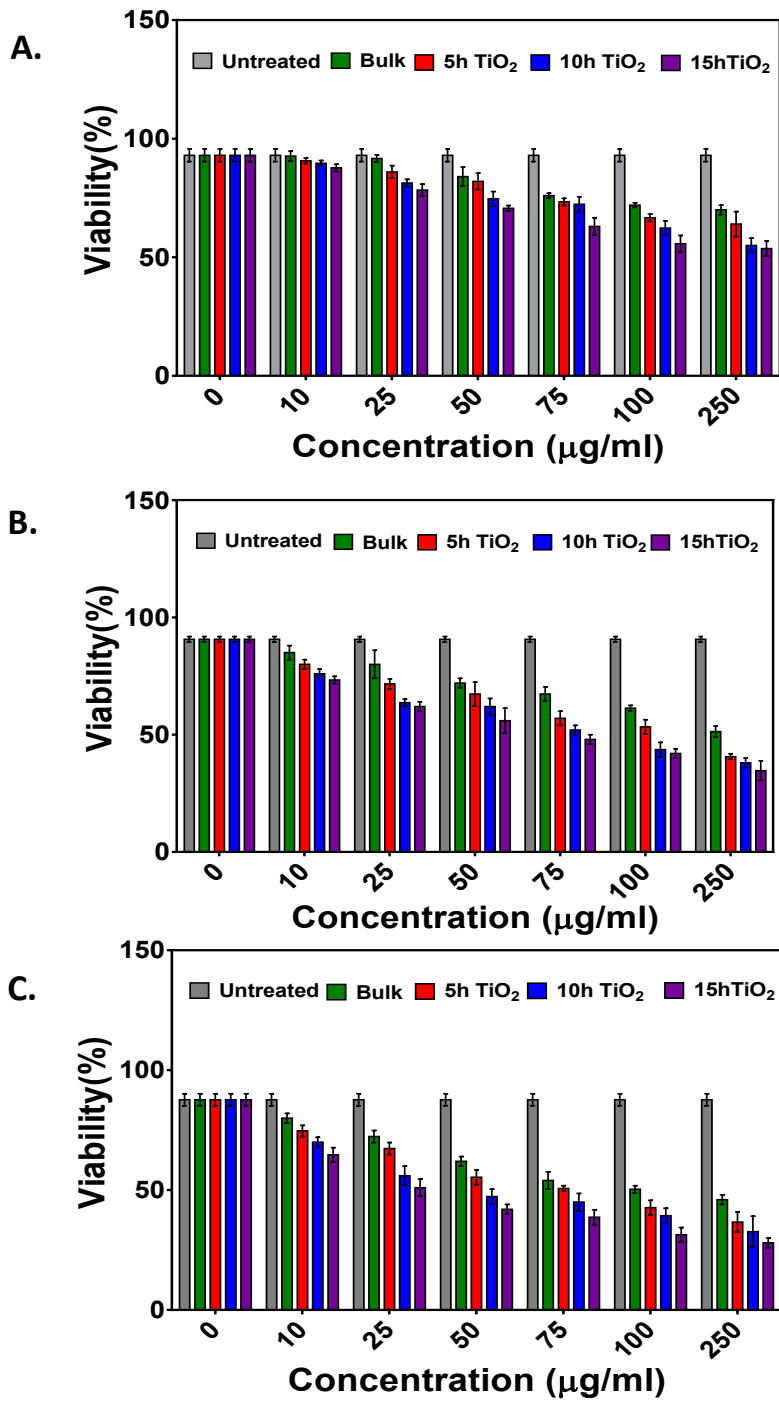


Figure S2: Viability changes in Zebrafish embryo treated with 5, 10 and 15h HEBM synthesized TiO₂ nanoparticles at different concentration for (A) 24h (B) 48h and (C) 96h exposure. The values represent mean \pm SD of three independent experiments. *P<0.05, denotes significant change from untreated embryos as obtained from ANOVA analysis. Number of * presents the degree of significance.

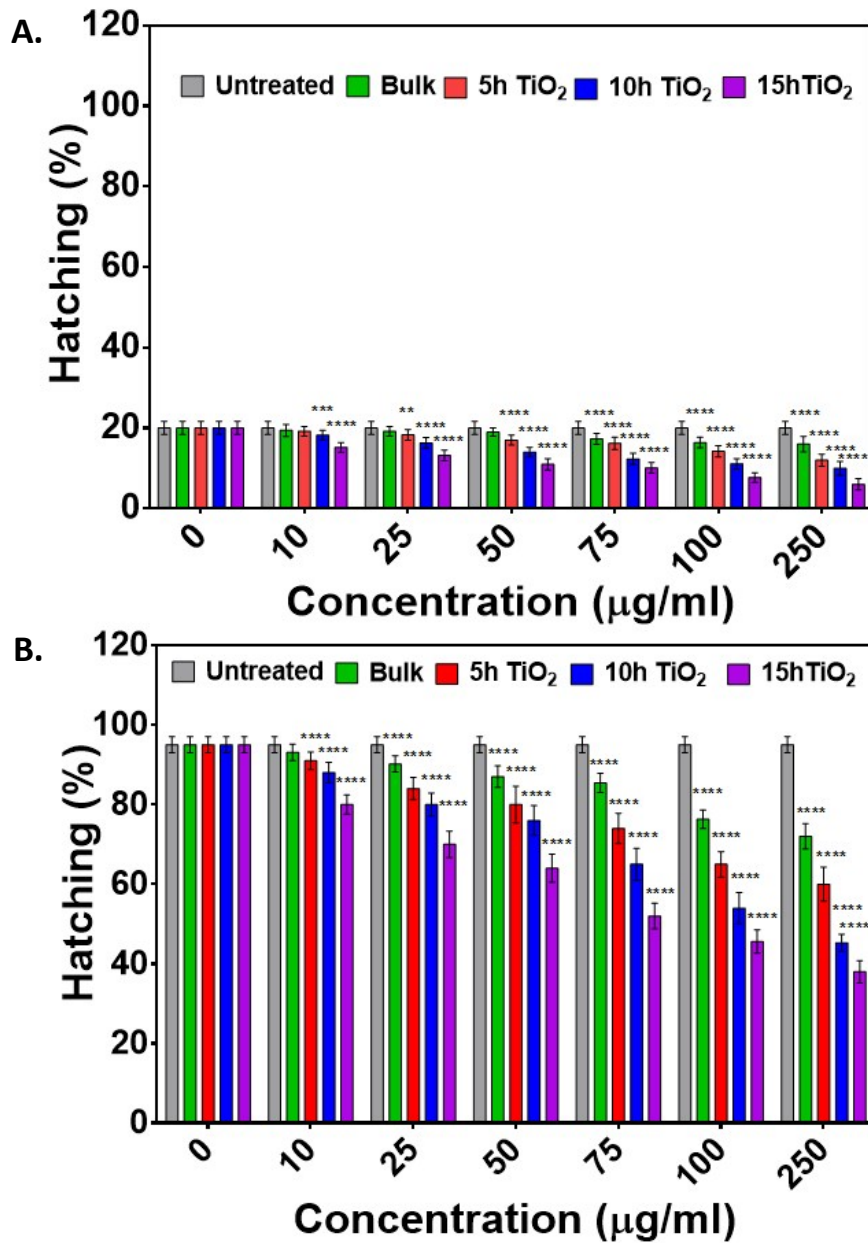


Figure S3. Hatching percentage changes in Zebrafish embryo treated with 5, 10 and 15h HEBM synthesized TiO₂ nanoparticles at different concentration for (A) 48h and (B) 96h exposure. The values represent mean± SD of three independent experiments. *P<0.05, denotes the significant change from untreated embryos as obtained from ANOVA analysis. Number of * presents the degree of significance.

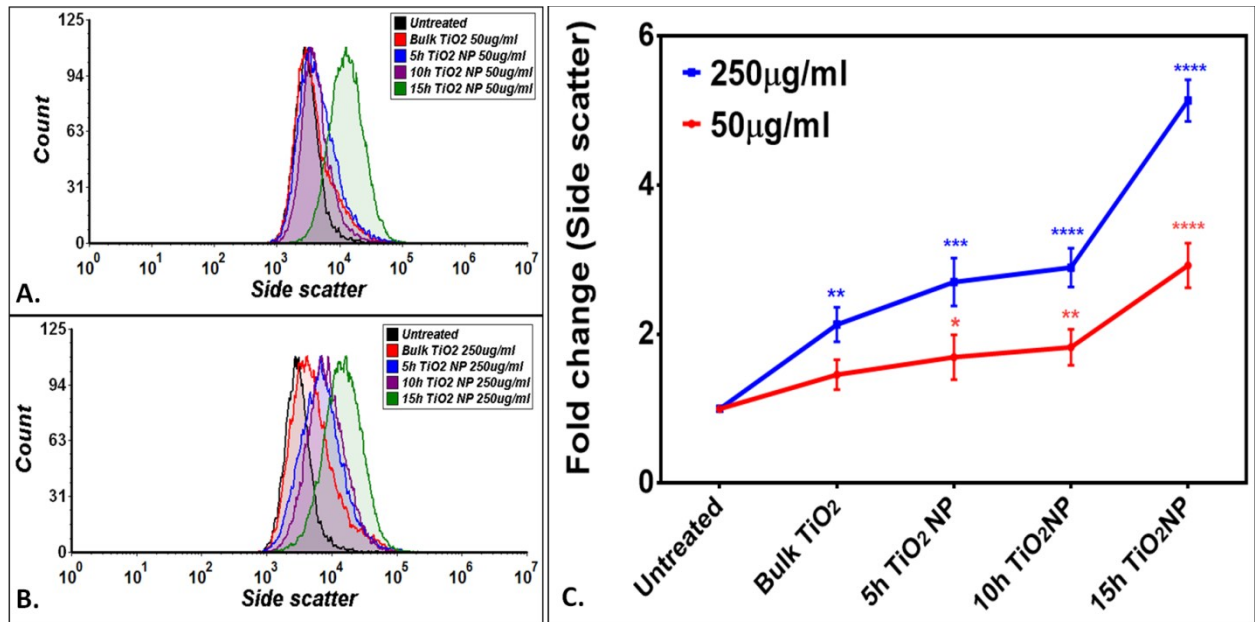


Figure S4: Flow cytometry analysis of Bulk and TiO₂ nanoparticles uptake in Zebrafish embryos determined by granularity change (A) Side scatter at 50 µg/ml (B) Side scatter at 250 µg/ml (C) Fold change in side scatter with respect to untreated embryos. The values represent mean ± SD of three independent experiments. *P < 0.05 denotes the significant change from untreated control, Bulk and 7h exposed embryos as obtained from TWO WAY ANOVA analysis. Number of * presents the degree of significance.