

SUPPLEMENTARY MATERIAL

In Vitro Cytotoxicity Evaluation of the Magnéli Phase Titanium Suboxides (Ti_xO_{2x-1}) on A549 Human Lung Cells

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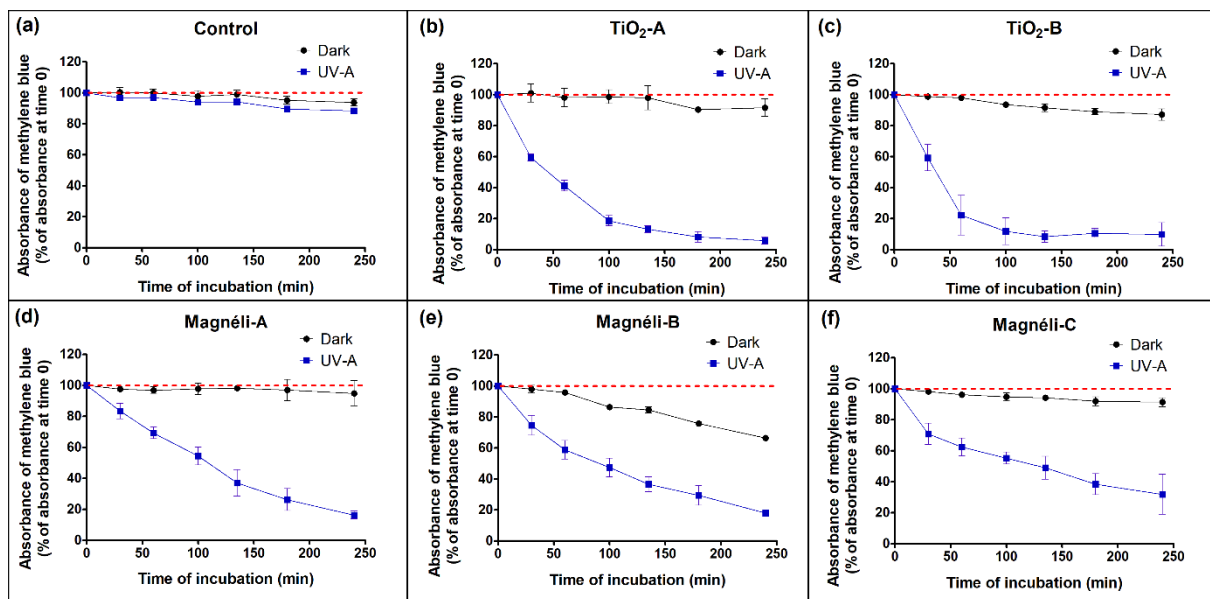


Figure S1. Photocatalytic activity of all used particles evaluated by the measurement of the UV-A photocatalytic bleaching of methylene blue dye. Bleaching of methylene blue dye in (a) control samples, (b) samples with TiO₂-A nanoparticles, (c) samples with TiO₂-B nanoparticles, (d) samples with Magnéli-A nanoparticles, (e) samples with Magnéli-B nanoparticles, and (f) samples with Magnéli-C nanoparticles.

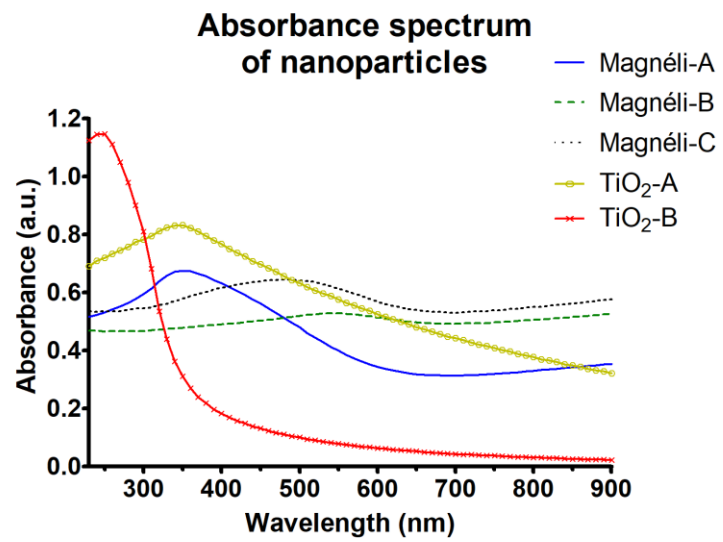


Figure S2. UV-VIS absorption spectrum of used nanoparticles (NPs).

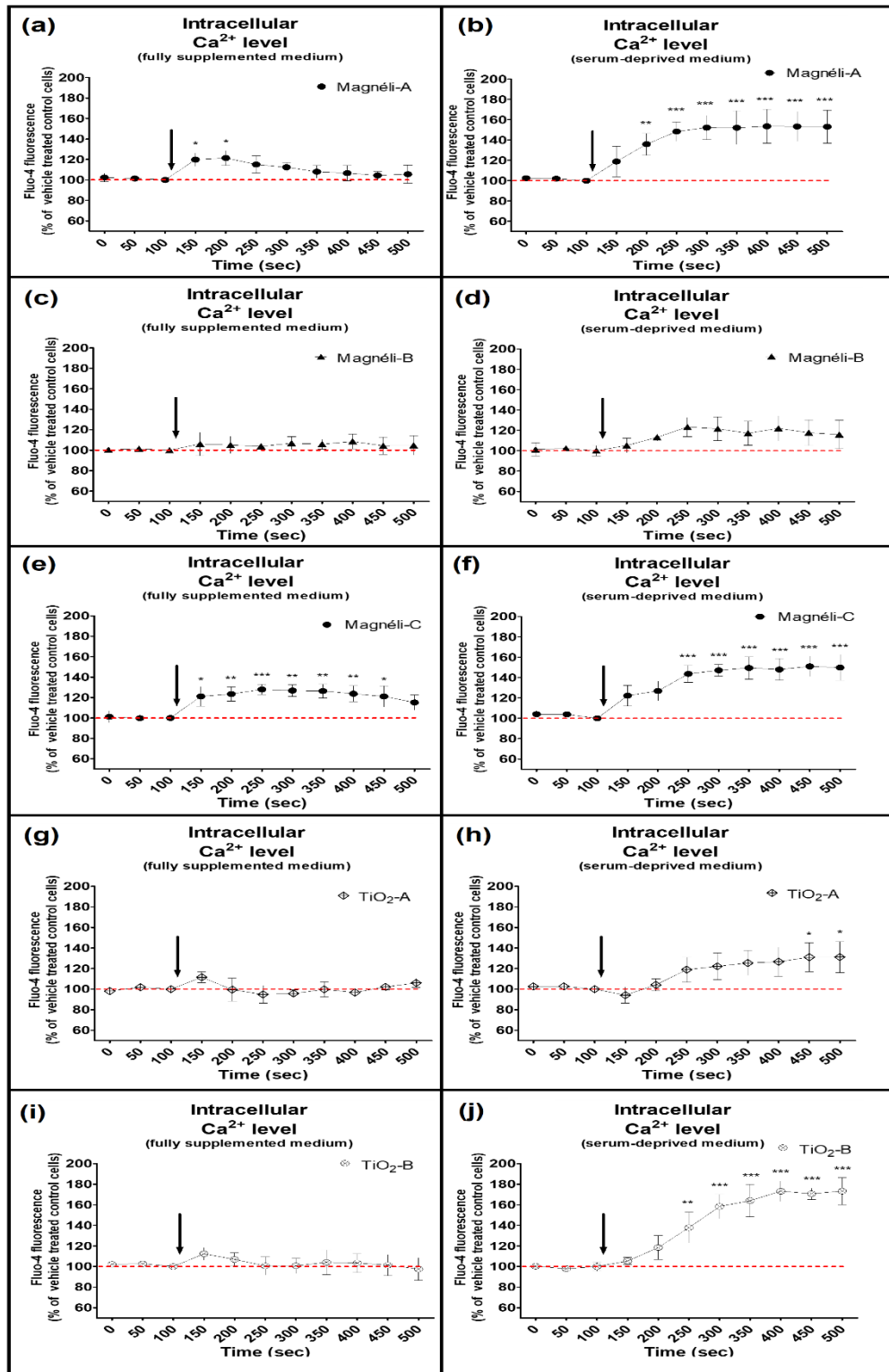


Figure S3. Intracellular Ca^{2+} level in A549 cells after exposure to (a, b) Magnéli-A, (c, d) Magnéli-B, (e, f) Magnéli-C, (g, h) $\text{TiO}_2\text{-A}$, (i, j) $\text{TiO}_2\text{-B}$ in fully supplemented and serum-deprived cell medium. The arrow indicates the start of perfusion with NPs. For evaluation of the intracellular Ca^{2+} level, Ca^{2+} -sensitive Fluo-4 dye was used. For each treatment condition, three independent repetitions were performed where the fluorescence of at least 20 individual cells was evaluated. Results are presented as an average Fluo-4 fluorescence (+SD) according to vehicle treated control cells (dashed line). Asterisk presents significant difference with respect to the control cells (* equals $p < 0.05$; ** equals $p < 0.01$; *** equals $p < 0.001$; ANOVA with Bonferroni's post test).