Phase transformation of TiO₂ nanoparticles by femtosecond laser ablation in aqueous solution and deposited on conductive substrate

SUPPLEMENTARY INFORMATION

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Figure S1: Size distribution of P25 aqueous suspensions laser treated at: (a) 0 min, (b) 5 min, (c) 15 min, (d) 30 min, (e) 60 min, (f) 90 min, and (g) 120 min. (h) P25 diameter as a function of laser irradiation time.



Figure S2A: HRTEM images of TiO₂ powder with d-spacing profiles (a) before laser ablation and after (b) 5, (c) 15, and (d) 30 min of laser ablation



Figure S2B: HRTEM images of TiO₂ powder with d-spacing profiles after (a, b) 60, (c) 90, and (d) 120 min of laser ablation.

Α	В	p-value	Significance (α=0.05)
5min	0min	0.0073	YES
15min	0min	<0.0001	YES
15min	5min	0.2111	NO
30min	0min	<0.0001	YES
30min	5min	0.7137	NO
30min	15min	0.9825	NO
60min	15min	<0.0001	YES
60min	5min	0.2967	NO
60min	15min	1.0000	NO
60min	30min	0.9951	NO
90min	Omin	0.0015	YES
90min	5min	0.9996	NO
90min	15min	0.4441	NO
90min	30min	0.9180	NO
90min	60min	0.5610	NO
120min	0min	<0.0001	YES
120min	5min	0.0027	YES
120min	15min	0.7711	NO
120min	30min	0.2558	NO
120min	60min	0.6631	NO
120min	90min	0.0121	YES

Table S1: One-Way ANOVA *p*-value post-hoc tests (OriginPro, α=0.05) for laser-treated P25

*Post-hoc tests (multiple comparisons) were conducted when a statistical significance was detected using Holm-Sidak method with overall statistical significance level of 0.05.