





**Figure S2:** Homogeneous (7 mg/L  $\text{Fe}^{3+}$ , 100 mg/L  $\text{H}_2\text{O}_2$ , pH 3.0, UVA, solid symbols) and microorganism-dependent  $\text{TiO}_2$  concentration optimized heterogeneous photocatalysis (no fill symbols) supplemented with either 100 mg/L  $\text{H}_2\text{O}_2$  (continuous lines) or 1000 mg/L  $\text{H}_2\text{O}_2$  (dashed lines) for the inactivation of  $10^6$  cfu/ml *Bacillus stearothermophilus* spores (red),  $10^6$  pfu/ml *MS-2* (green),  $10^6$  cfu/ml *Staphylococcus aureus* (purple) and  $10^6$  cfu/ml *Escherichia coli* (blue). The graph depicts Inactivation efficiency (I) in relation to processing time and corresponding controls. Zero values in the Y axis represent cases for which no microorganism growth was detected (0 cfu/ml or pfu/ml). Error bars correspond to standard errors from triplicates. The legend shows experimental conditions for processed samples. *Escherichia coli* is highly susceptible at pH 3 required for homogeneous photocatalysis and thus not included in homogeneous photocatalysis experiments.