Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Amino- and ionic liquid-functionalised nanocrystalline ZnO via silane anchoring - an antimicrobial synergy

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Supporting information

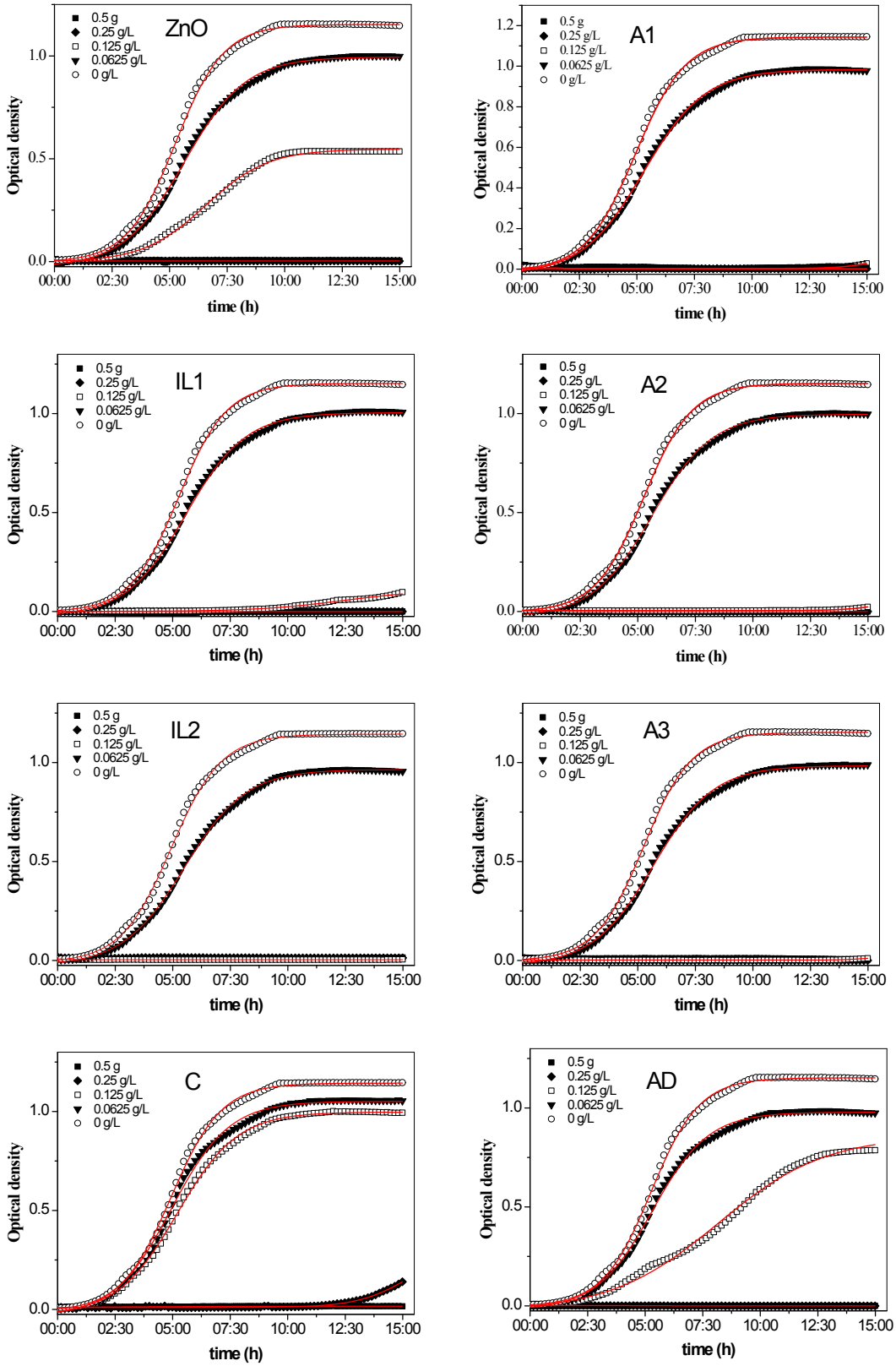

Figure 1SI: Growth curves of E. coli with the increasing concentrations of pure and modified ZnO nanocrystals. Red line: fitted (non-linear regression) Sigmoidal (Boltzmann) growth curves.

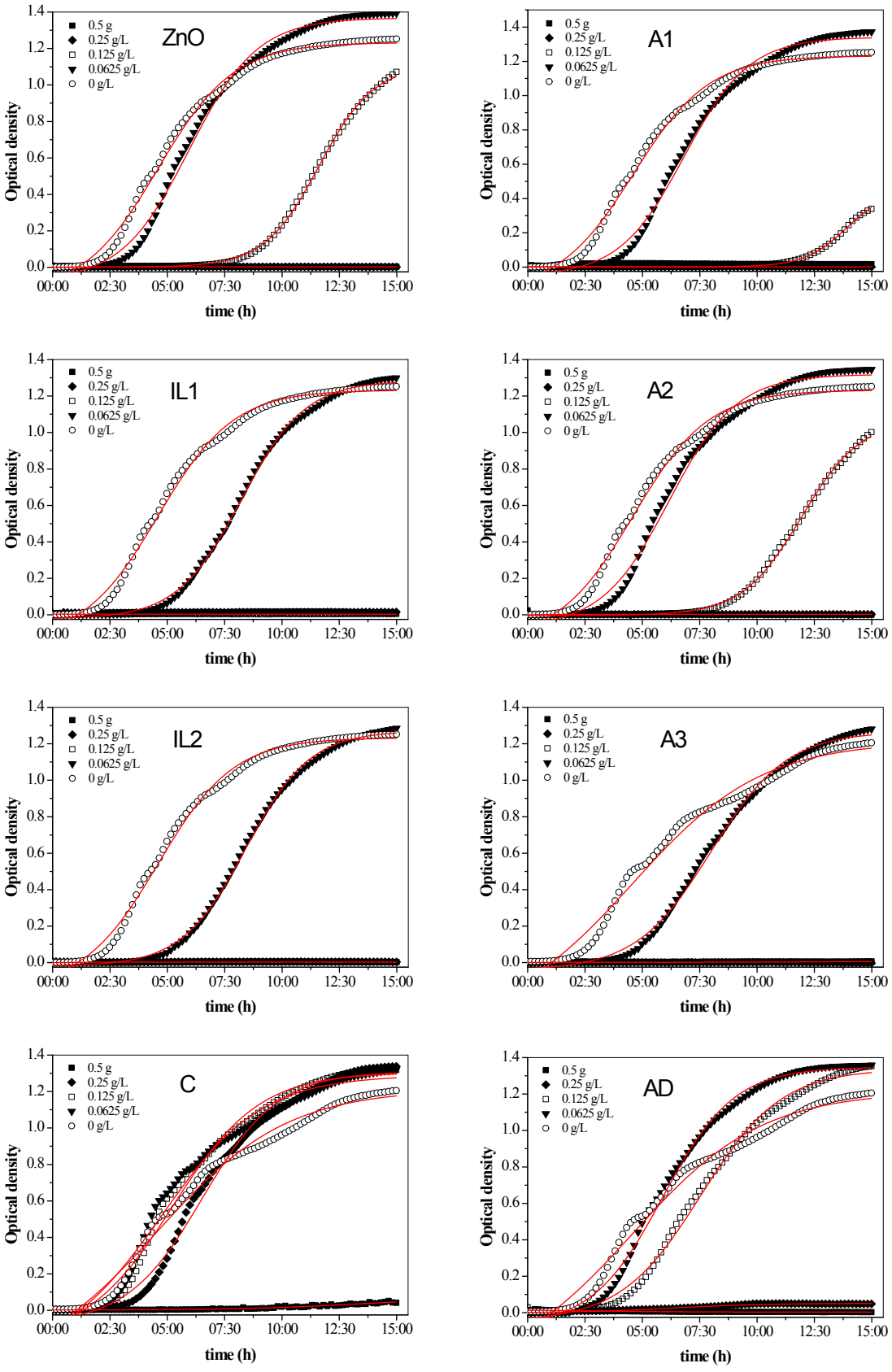

Figure 2SI: Growth curves of S. aureus with the increasing concentrations of pure and modified ZnO nanocrystals. Red line: fitted (non-linear regression) Sigmoidal (Boltzmann) growth curves.

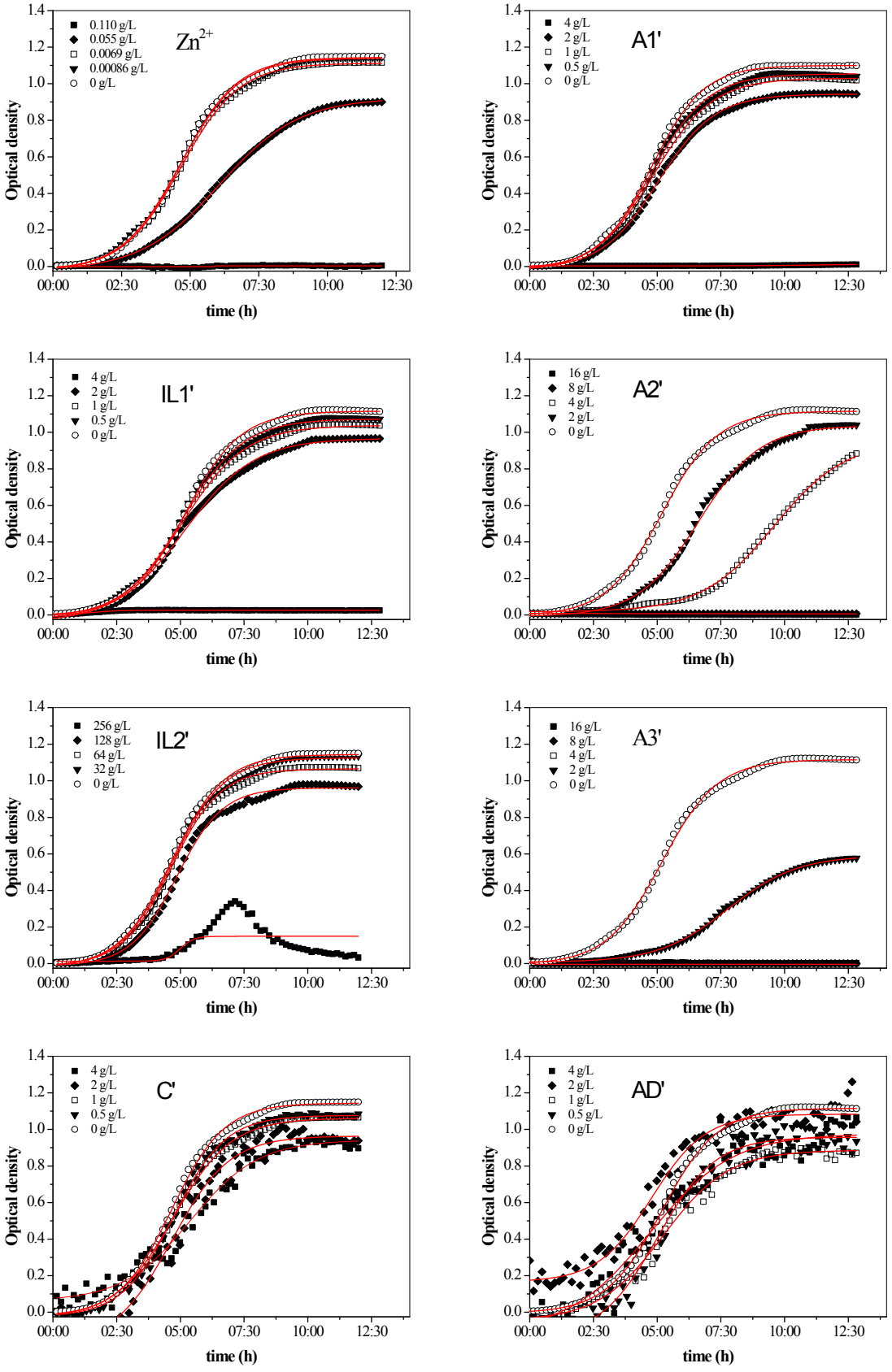

Figure 3SI: Growth curves of E. coli with the increasing concentrations of Zn^{2+} and investigated silanes. Red line: fitted (non-linear regression) Sigmoidal (Boltzmann) growth curves.

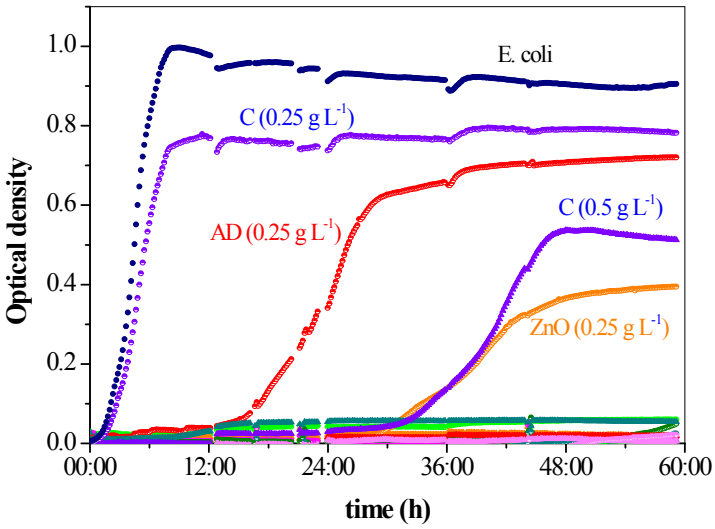

Figure 4SI: Reusability study by adding fresh inoculums of E. coli every 12 h for 5 days

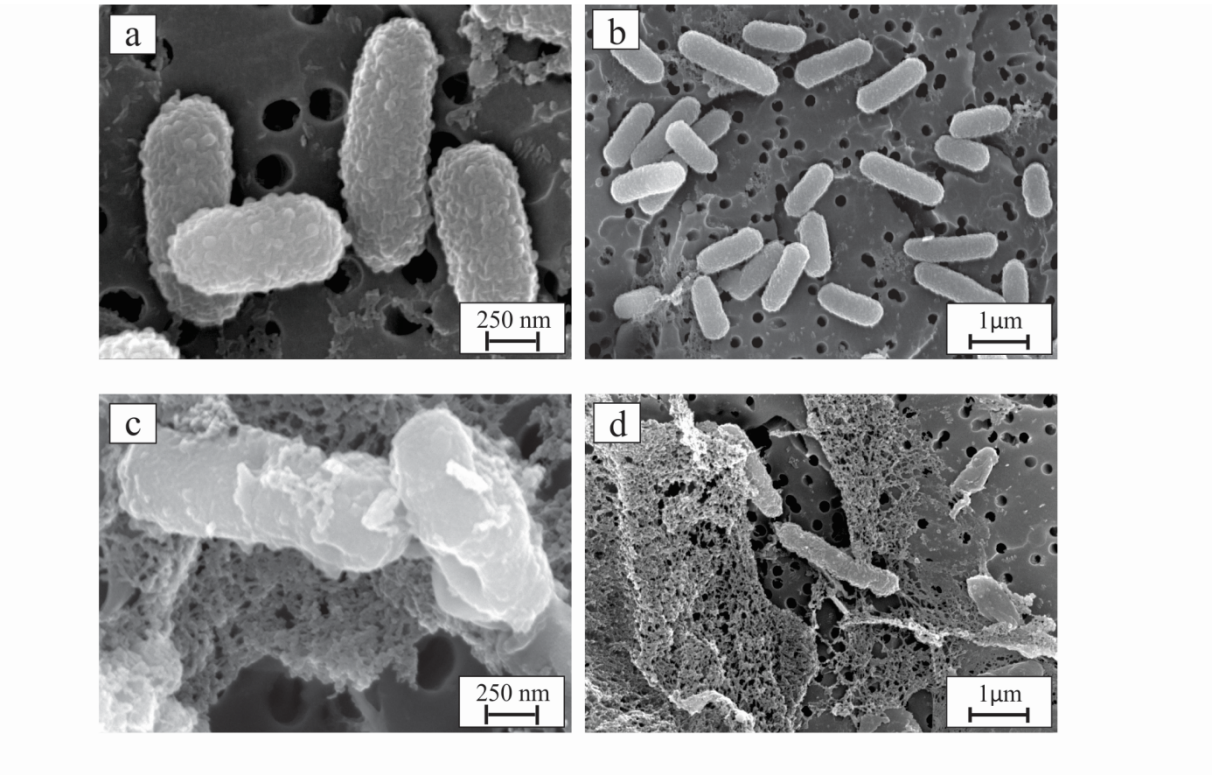

Figure 5SI: SEM images of healthy (a, b) and A3-treated *E. coli* (c, d).

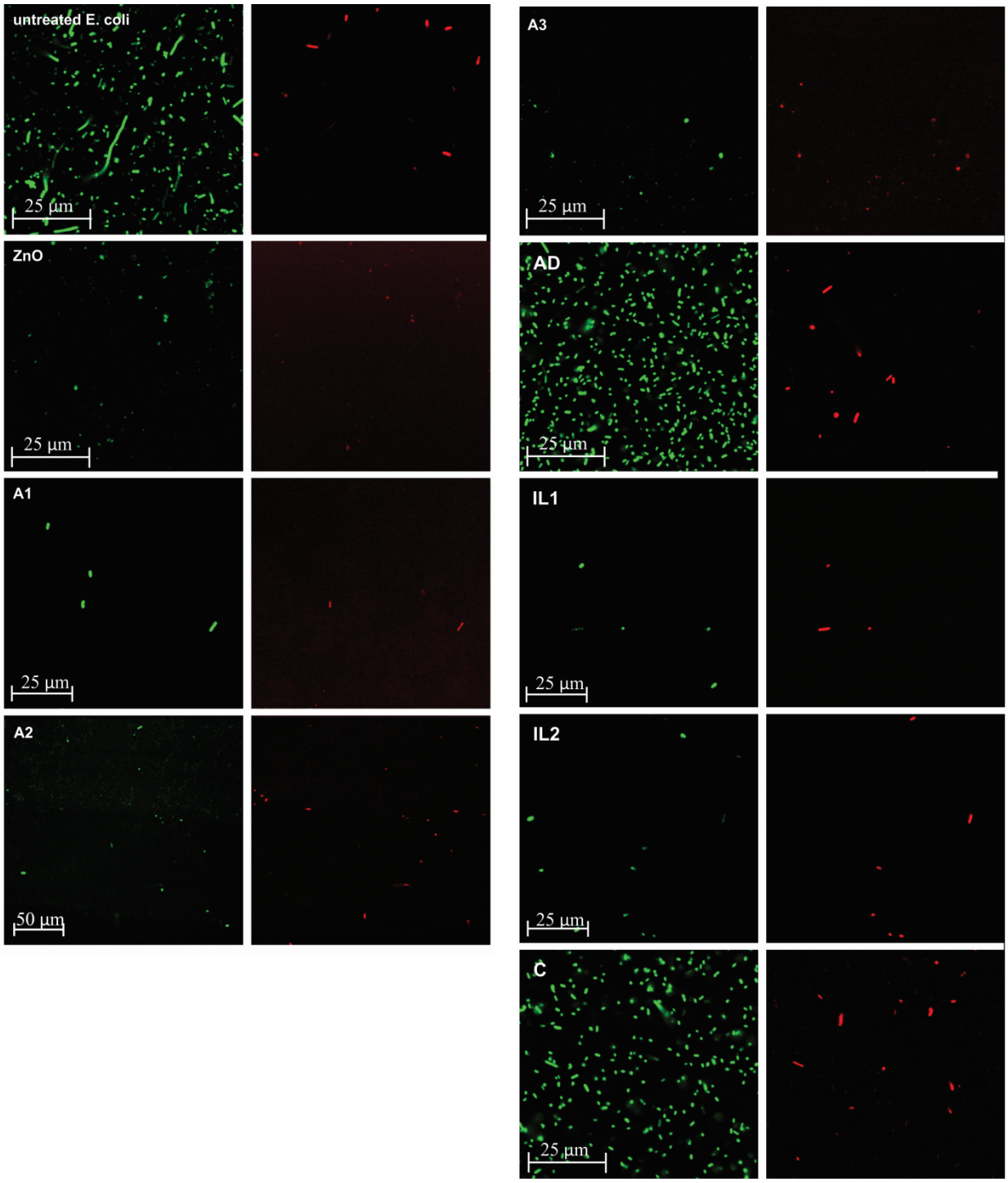

Figure 6SI: Confocal micrographs of untreated and treated E. coli. Treatment was performed using 0.125 g L^{-1} of ZnO-based materials. Two fluorescent stains SYTO® 9 (green) and propidium iodide (red) were used. Green fluorescence is characteristic for live and dead bacteria, whereas red fluorescence is due to dead bacteria.