

Supplementary Figure S1. Characterization of AgNPs

suspension: a) the impact of the increase of the NPs size

distribution at different NPs concentrations by DLS

analysis, b) photographs of the AgNPs suspensions using

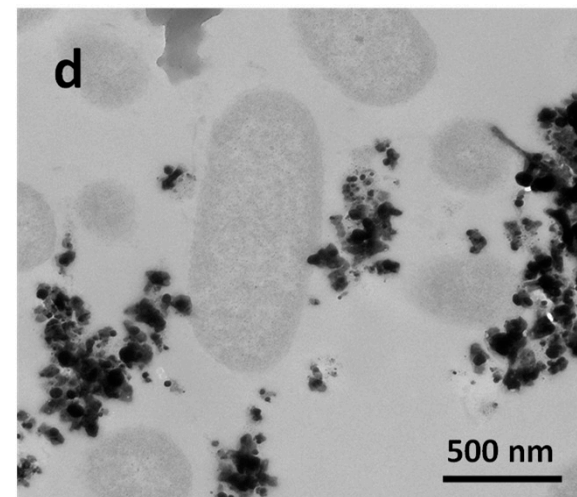
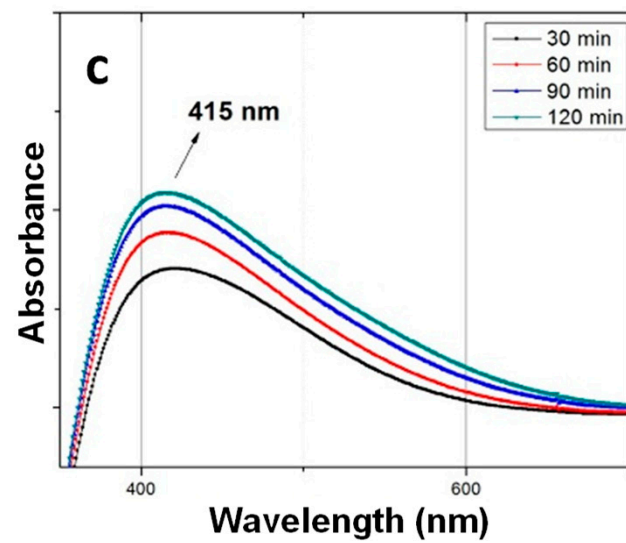
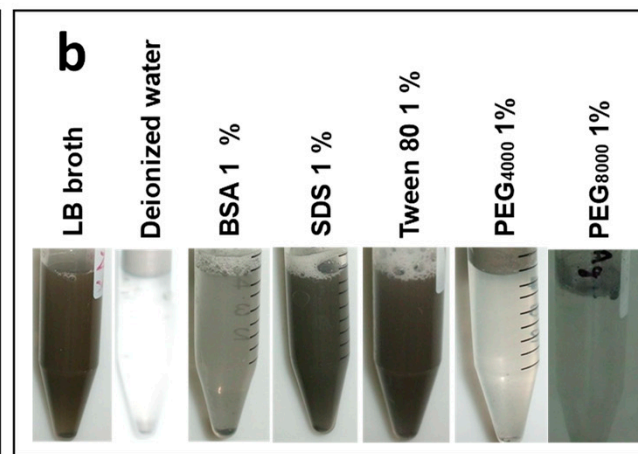
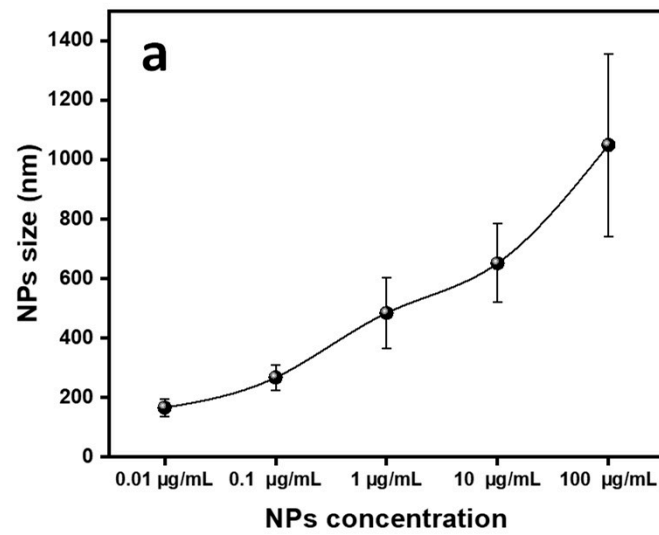
different dispersant agents (800 µg/mL) after 1 hour of

ultrasound sonication (2 min, 60% amplitude); c) UV-VIS

spectra of AgNPs suspension after 30, 60, 90, and 120

min of ultrasound sonication; d) TEM micrograph of Gram-

negative bacteria in contact with 400 µg/mL of AgNPs.



Supplementary Figure S2. Complementary to the results of the $\Delta recA$ mutant strain, DH5 α cells were challenged with silver NPs since this strain carries a RecA1 mutant protein. The conditions were the same as for the BW25113 parental strain. The experiment was conducted in independent triplicate assays, including the BW25113 parental strain.

