

in case of this modification, nanoparticles will be mostly placed on membrane surface.

concentrations (0,1; 0,5; 1; 5; 7; 10; 13

Fig. 4. Plates inoculated by a) *Escherichia coli*; b) *Bacillus subtilis* with PP and modified membranes then

stress out that this test do not differentiate life and dead bacteria. Only in case of cell lysis the reduction of OD_{550} will be observed. Graph presenting antibacterial

this type of membranes. According to the author not worth continuing research on the modification of the manganese oxide nanoparti