

Abstract

This study investigates the antibacterial effect of silver ions on *Escherichia Coli* and *Bacillus Subtilis*. It aims to clarify the correlation between the silver ion concentration and the antibacterial effect in order to contribute to this relatively uninvestigated scientific field. The well diffusion method was used in the experiment, where five different concentrations of silver ions were examined (0, 1, 5, 20 and 50 mM). Every concentration was tested 12 times on each bacterial strain and the inhibition zone was measured after 24 h. The results generally showed that higher silver ion concentrations induced a higher antibacterial effect. Moreover, the effect on *B. Subtilis* was greater than the effect on *E. Coli*. A tendency of a plateau-effect could also be observed as the difference between the control and the lowest concentration was considerably bigger than the rest of the concentrations. However, a clear trend could not be established.