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## Supporting Information

### Antibacterial Activity of Silver doped Titanate Nanowires on Ti

#### Implants

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## Table of contents in supporting information

1. Contact angle values of prepared HT Ti. (Table S1)
2. EDS spectrum of TNWs. (Figure S1)
3. Images of water droplets lying on flat prepared samples surfaces. (Figure S2)
4. EDS spectra Ag doped and Ag/CS capped TNWs. (Figure S3)
5. XRD spectra of TNWs, Ag doped and Ag/CS capped TNWs. (Figure S4)
6. EDS spectra of (a) Ag doped TNWs, and (b) Ag/CS capped TNWs soaked in SBF for 14 Days.
7. The morphologies of the *E. coli* and *S. aureus* attached on the MP Ti, Ag doped TNWs and Ag/CS capped TNWs. (Figure S6)
8. The molecular structure of CS (a). The scheme for coordination process of CS to  $\text{Ag}^+$ . (Figure S7)
9. Fluorescent images of MC3T3 cells cultured on TNWs and Ag/CS TNWs for 24 h. (Figure S8)

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Table S1 Contact angle values of prepared samples surfaces

	<b>MP Ti</b>	<b>C-0.2</b>	<b>C-0.5</b>	<b>C-1</b>	<b>C-2.5</b>
<b>Angles (°)</b>	63.3	9.6	10.4	14.7	2.7

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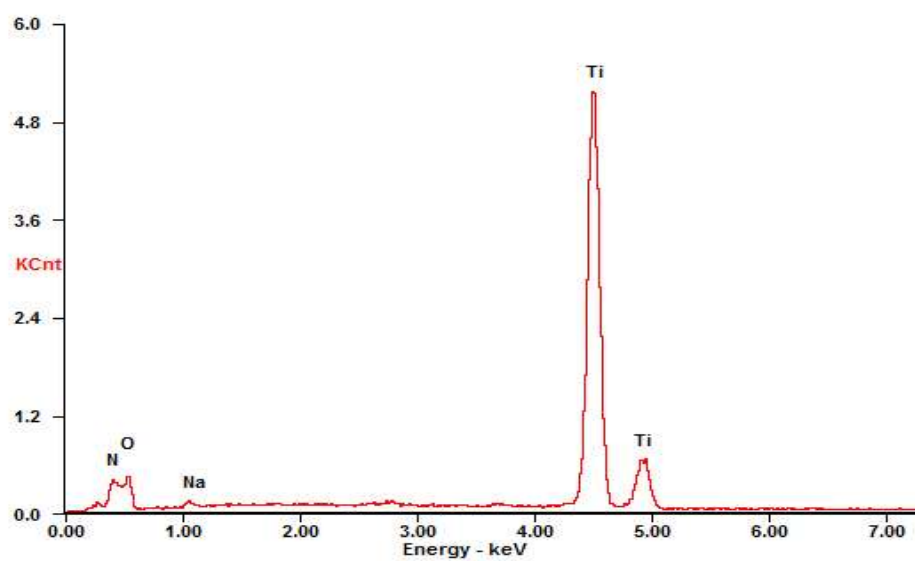


Figure S1. EDS spectrum of TNWs.



Figure S2. Images of water droplets lying on MP-Ti and TNWs modified Ti plates

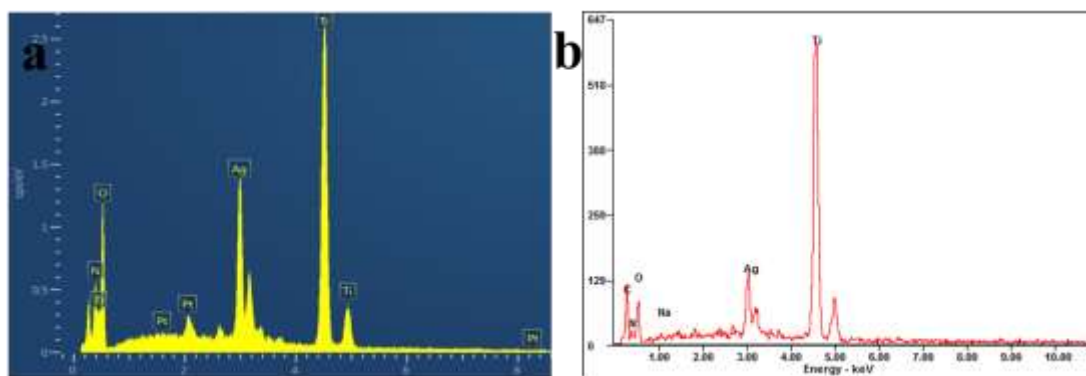


Figure S3. EDS spectra Ag doped (a) and Ag/CS capped TNWs (b).

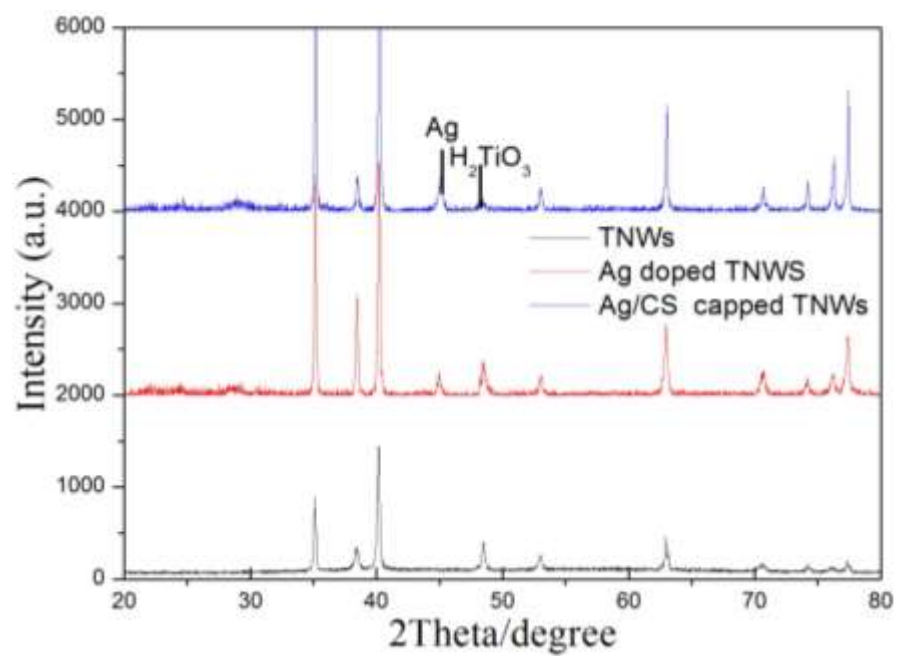


Figure S4. XRD spectra of TNWs, Ag doped and Ag/CS capped TNWs

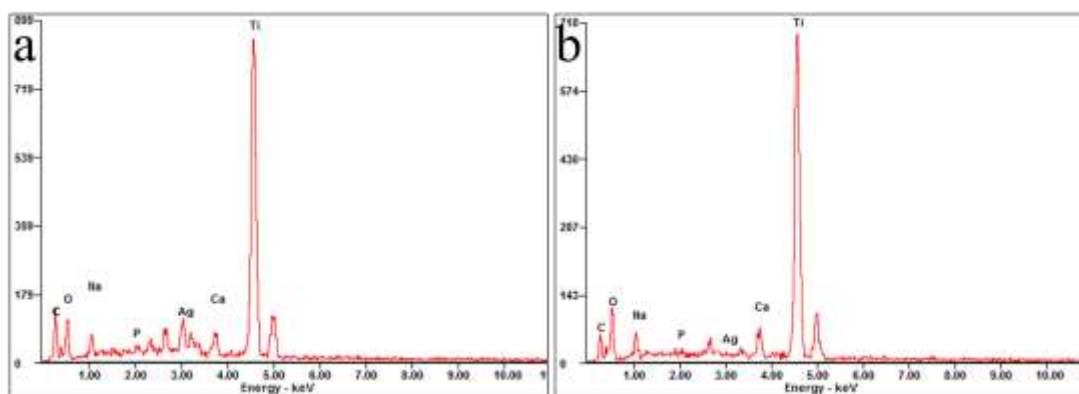


Figure S5 EDS spectra of (a) Ag doped TNWs, and (b) Ag/CS capped TNWs soaked in SBF for 14 Days.



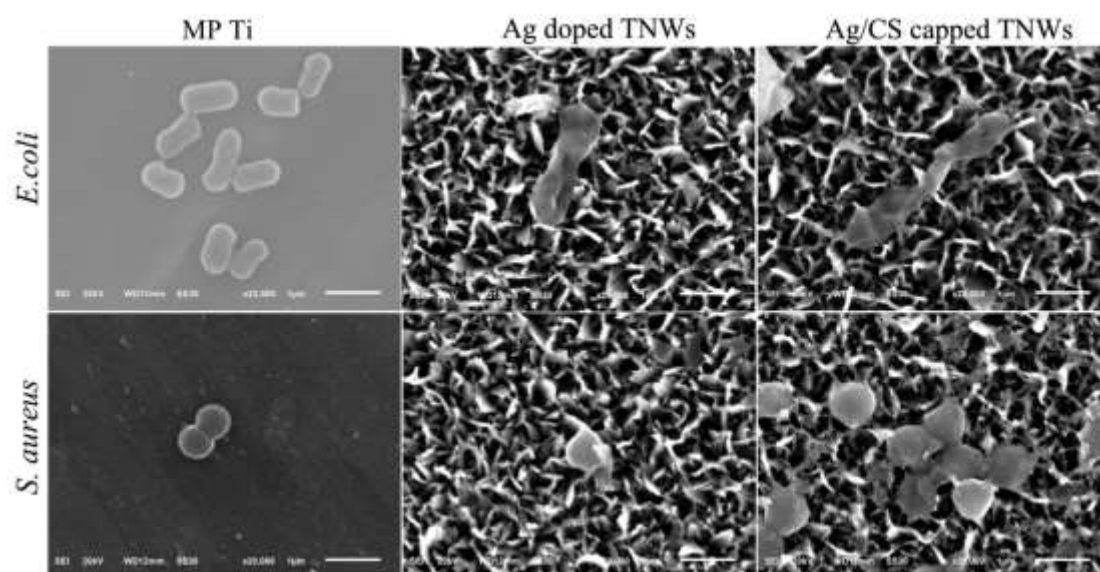


Figure S6. The morphologies of the *E. coli* and *S. aureus* attached on the MP Ti, Ag doped TNWs and Ag/CS capped TNWs.

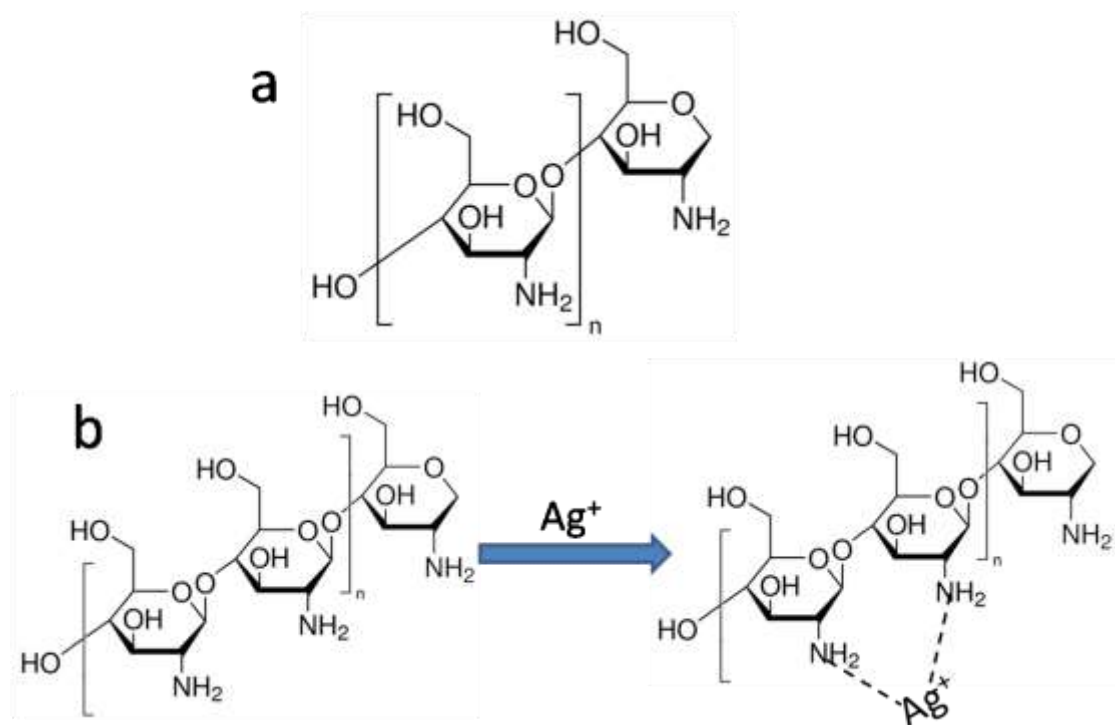


Figure S7. The molecular structure of CS (a). The scheme for coordination process of CS to  $\text{Ag}^+$ .

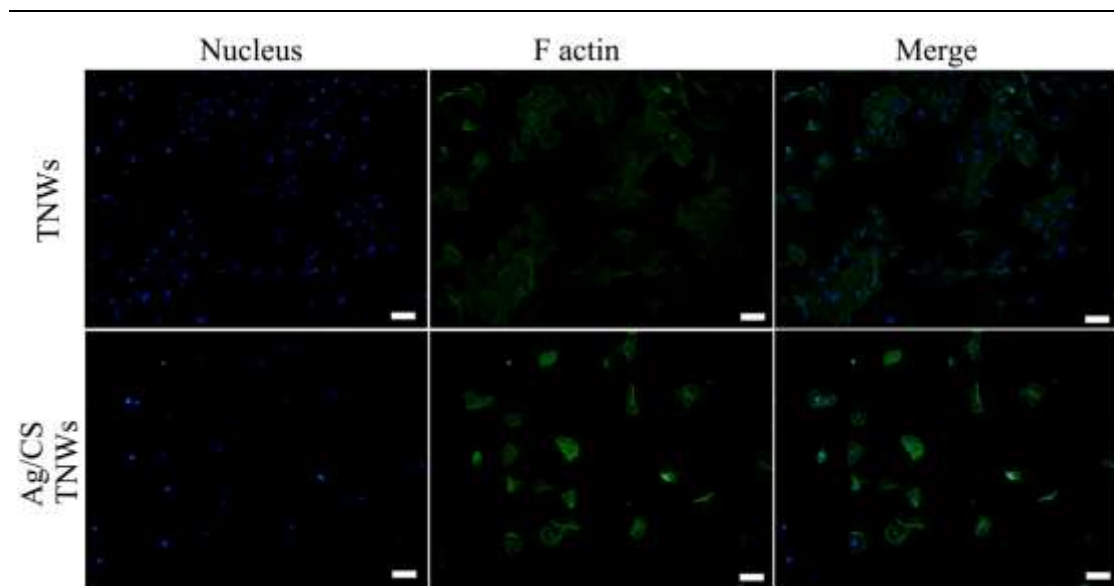


Figure S8. Fluorescent images of MC3T3 cells cultured on TNWs and Ag/CS TNWs for 24 h (scale bar: 100  $\mu$ m).