

**Supplementary Material Information**

**Tetracycline; Structural characterization and antimicrobial properties of its water-soluble di-anionic bi-sodium salt**

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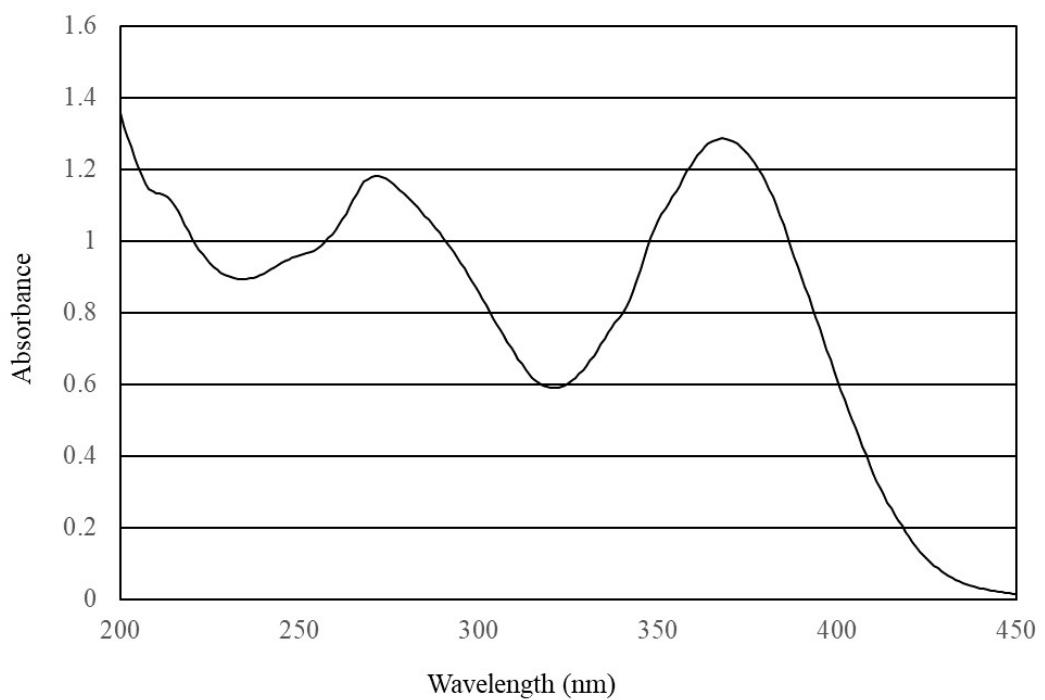
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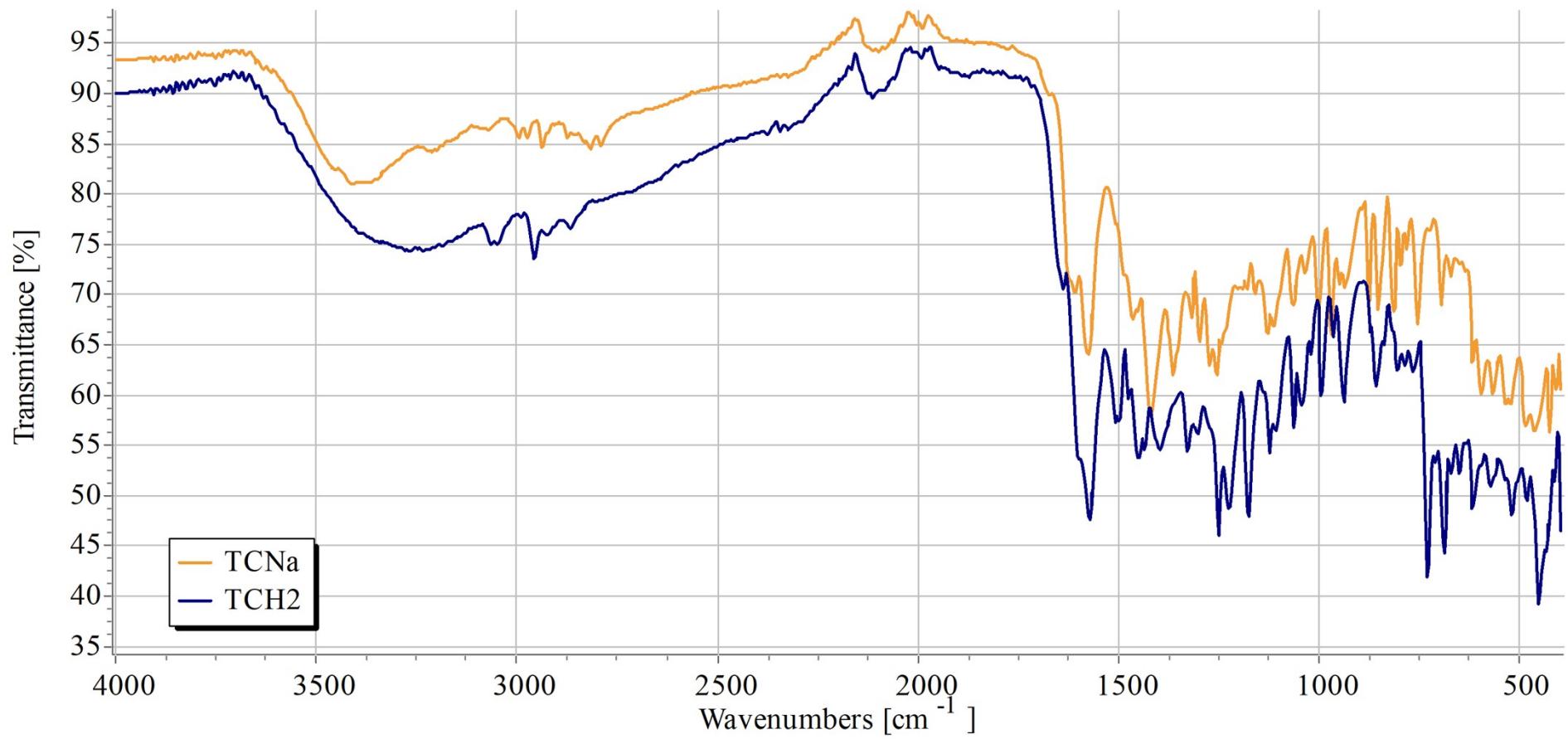
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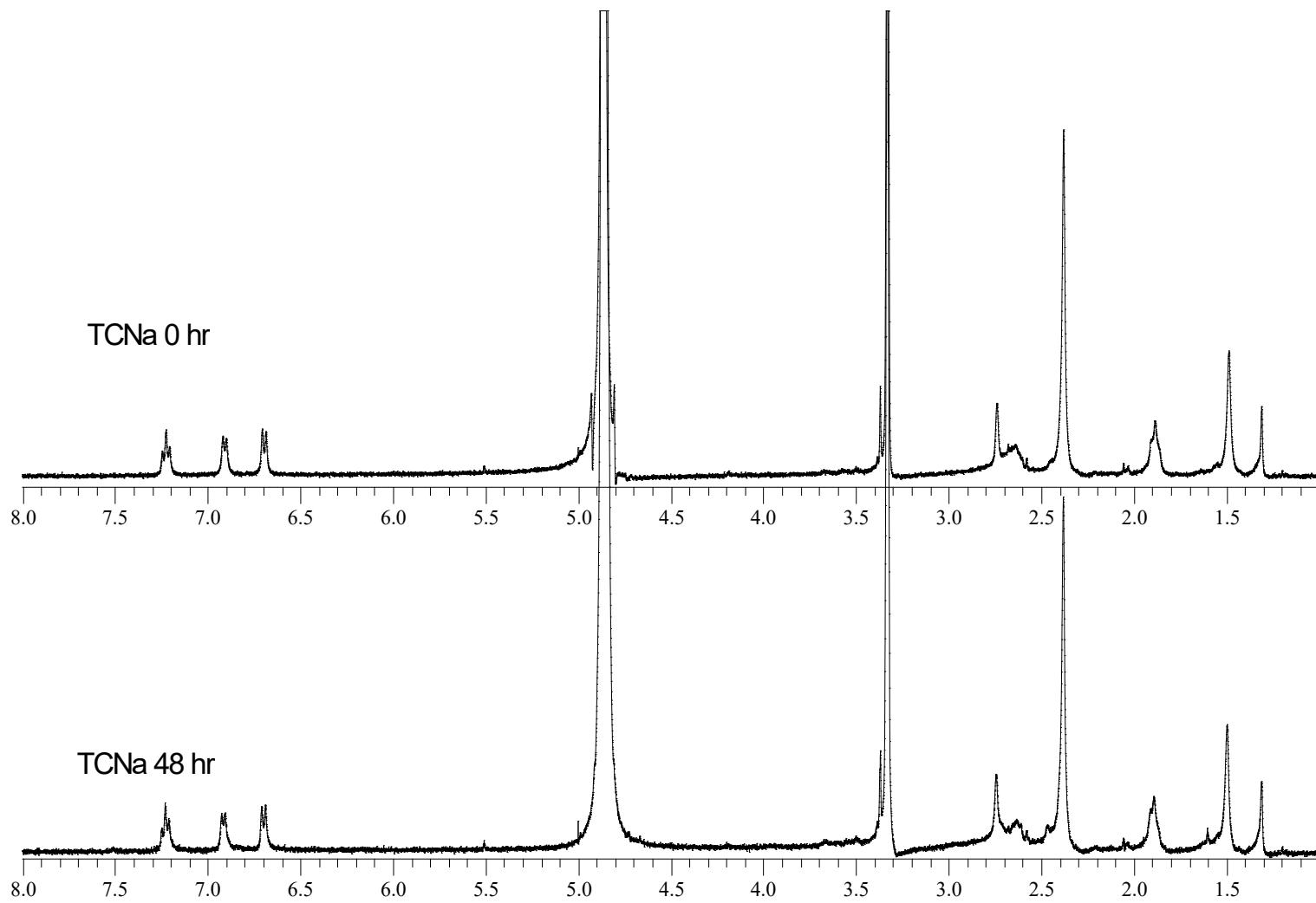
Dr. S.K. Hadjikakou (Professor) e-mail: shadjika@uoi.gr , tel.:xx30-26510-08374,



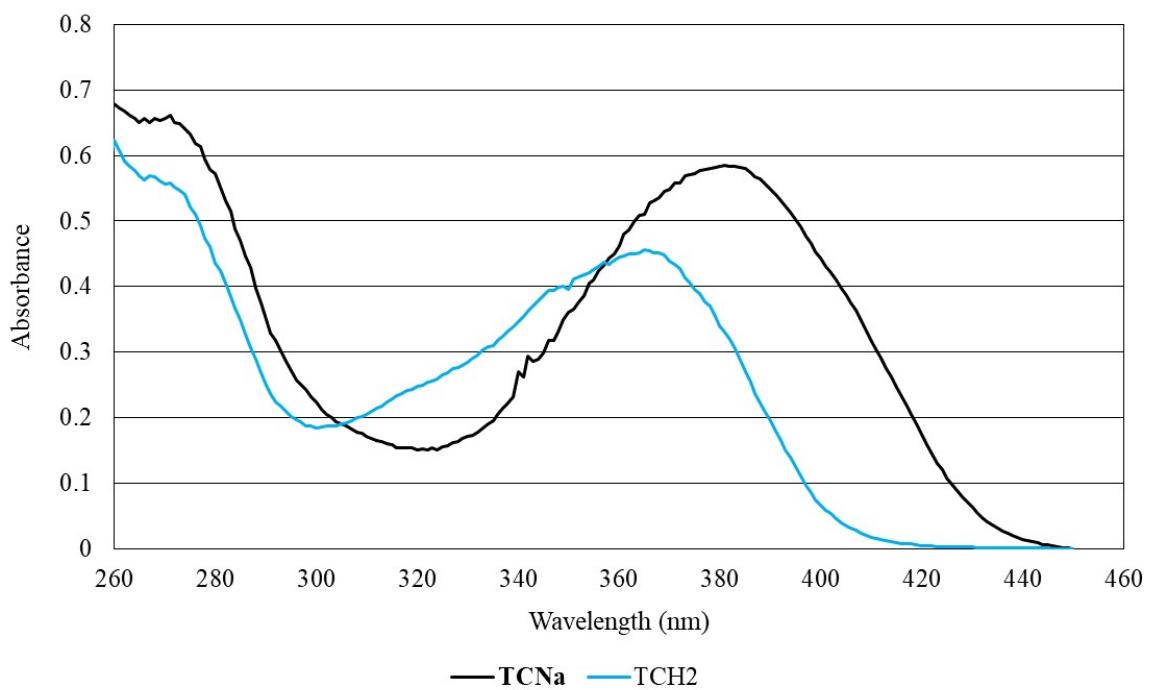
**Figure S1.** UV-Vis spectrum of TCNa ( $10^{-4}$  M) in ddH<sub>2</sub>O.



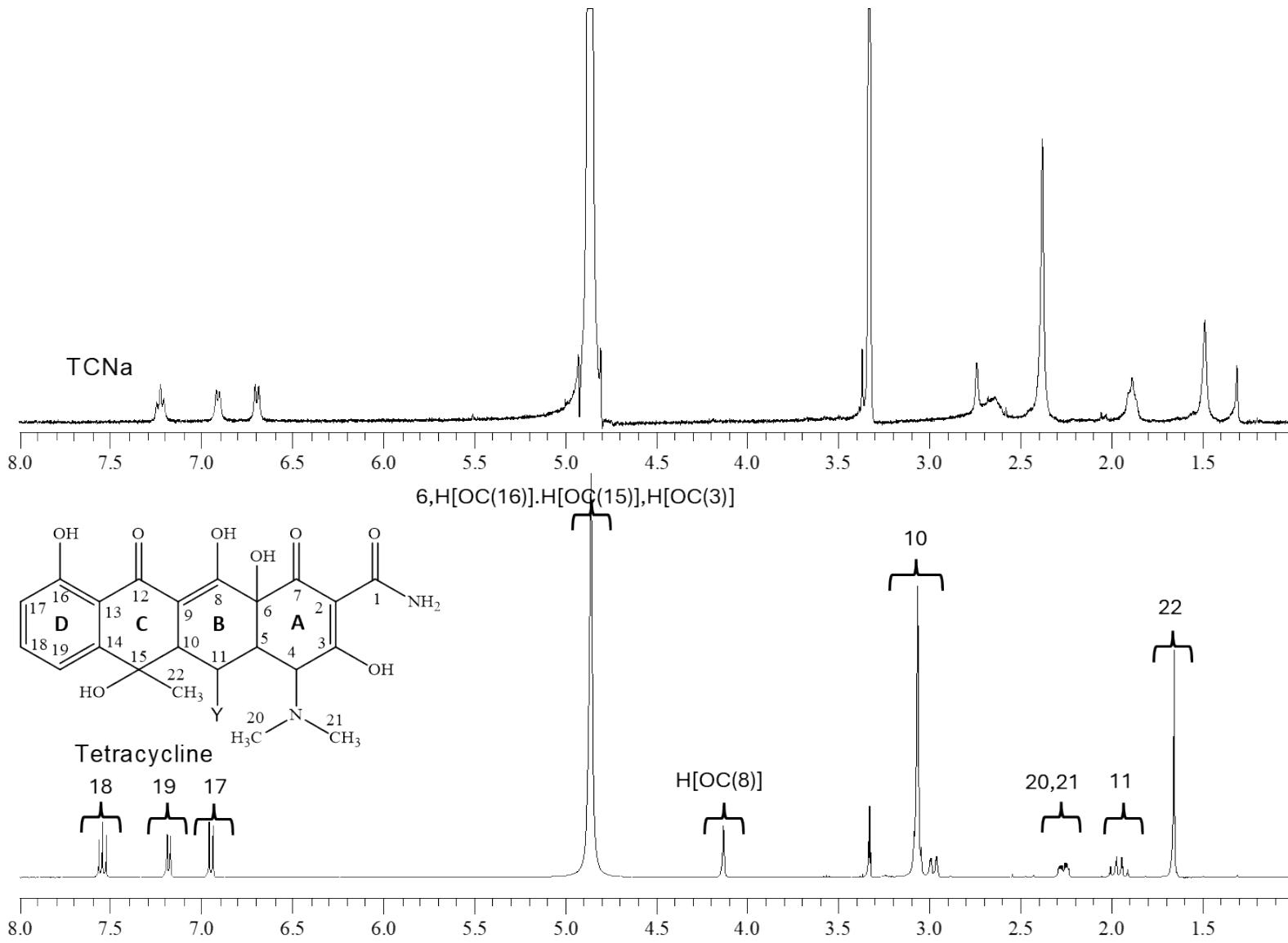
**Figure S2.** FT-IR spectra of **TCNa** and **TCH<sub>2</sub>**.



**Figure S3.** <sup>1</sup>H-NMR spectra of **TCNa** in MeOH-*d*<sub>4</sub> at 0 and 48 hours

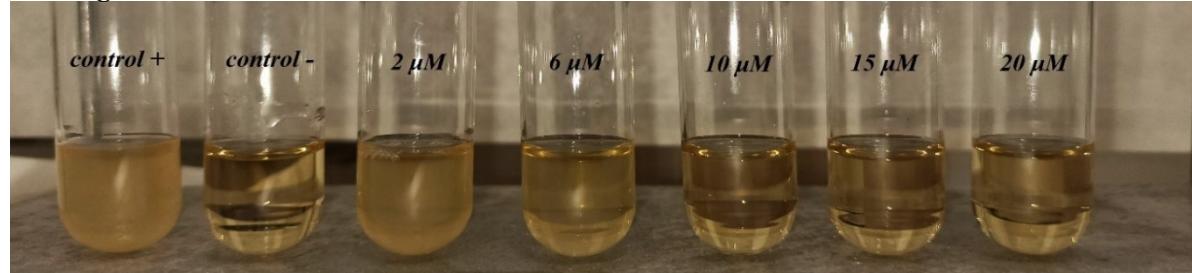


**Figure S4.** UV-Vis spectra of **TCNa** ( $10^{-4}$  M) and **TCH<sub>2</sub>** ( $10^{-3}$  M) in DMSO.

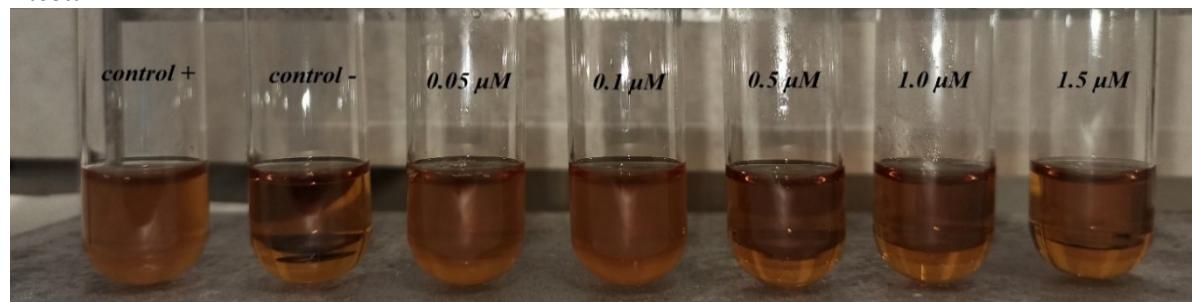


**Figure S5.**  $^1\text{H}$ -NMR spectra of TCNa and TCH<sub>2</sub> in MeOH-*d*<sub>4</sub>

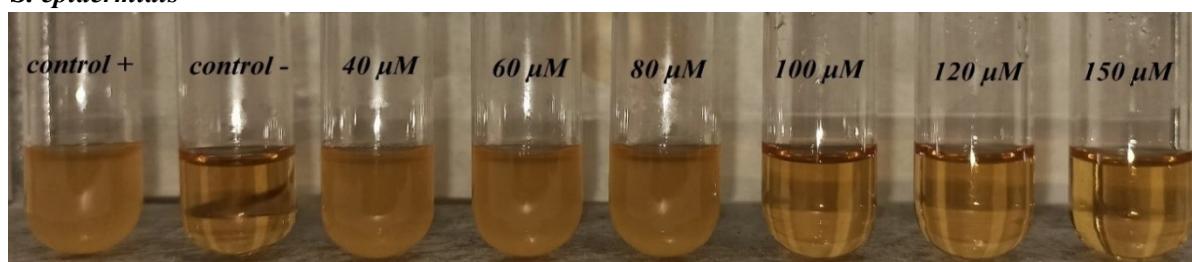
*P. aeruginosa*



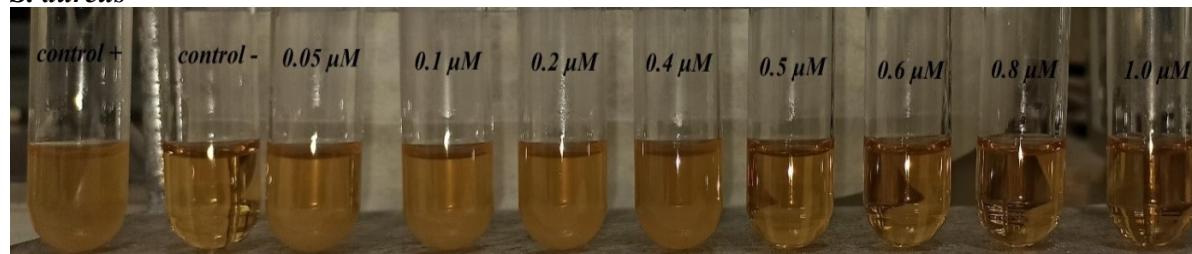
*E. coli*



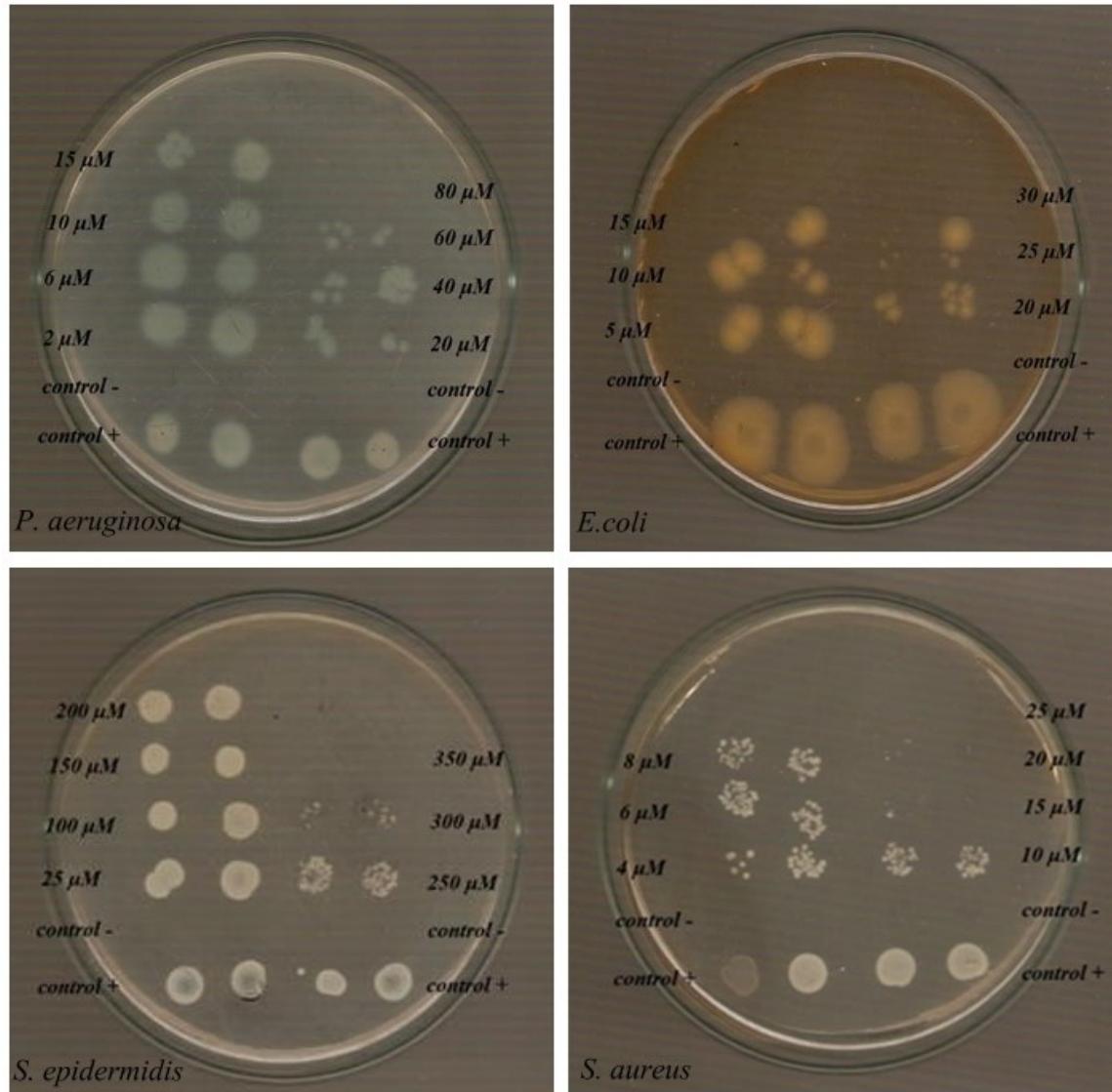
*S. epidermidis*



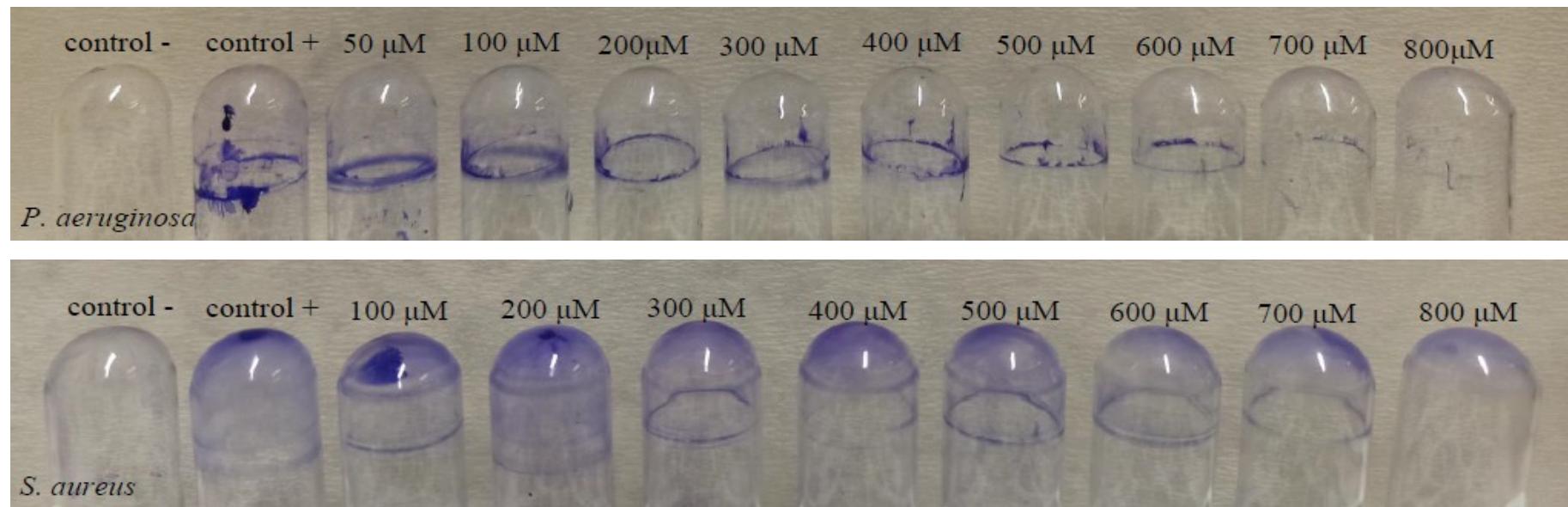
*S. aureus*



**Figure S6.** Minimum Inhibitory Concentration of **TCNa** against *P. aeruginosa*, *E. coli*, *S. epidermidis* and *S. aureus*.



**Figure S7.** Minimum bactericidal concentration of TCNa against *P. aeruginosa*, *E. coli*, *S. epidermidis* and *S. aureus*



**Figure S8.** *P. aeruginosa* and *S. aureus* biofilms stained by crystal violet under increasing concentrations of **TCNa** and **TCH<sub>2</sub>**.