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PII: S0896-8446(18)30091-3
DOI: https://doi.org/10.1016/j.supflu.2018.05.025
Reference: SUPFLU 4288

To appear in: *J. of Supercritical Fluids*

Received date: 5-2-2018
Revised date: 25-5-2018
Accepted date: 25-5-2018

Please cite this article as: Zizovic I, Senerovic L, Moric I, Adamovic T, Jovanovic M, Krusic MK, Misic D, Stojanovic D, Milovanovic S, Utilization of supercritical carbon dioxide in fabrication of cellulose acetate films with anti-biofilm effects against *Pseudomonas aeruginosa* and *Staphylococcus aureus*, *The Journal of Supercritical Fluids* (2018), https://doi.org/10.1016/j.supflu.2018.05.025

Utilization of supercritical carbon dioxide in fabrication of cellulose acetate films with anti-biofilm effects against *Pseudomonas aeruginosa* and *Staphylococcus aureus*

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Highlights

- Cellulose acetate films were impregnated with thymol using supercritical CO_2
- Target thymol contents for desired antibacterial activity were in the range 26-30%
- Thymol prevented *S. aureus* and *P. aeruginosa* attachment to films' surfaces
- Released thymol reduced biofilm formation on the surrounding surfaces
- The films showed strong anti-biofilm activity against antibiotic resistant strains