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Chitosan thymol nanoparticles improve the antimicrobial effect and the water vapour barrier of chitosan-quinoa protein films

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1 **Chitosan thymol nanoparticles improve the antimicrobial effect and the water vapour**  
2 **barrier of chitosan-quinoa protein films<sup>1</sup>**

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CNPs : Chitosan Nanoparticles  
CTNPs : Chitosan Timol Nanoparticles  
CQF : Chitosan Quinoa Films  
CQOF : Chitosan Quinoa Oil Films  
CQTF : Chitosan Quinoa Timol Films (with nanoparticles)  
C : Chitosan  
NPs : Nanoparticles  
TPP : sodium tripolyphosphate  
T : Thymol

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