

Accepted Manuscript

Title: Active bio-based food-packaging: Diffusion and release of active substances through and from cellulose nanofiber coating toward food-packaging design

Author: Nathalie Lavoine Valérie Guillard Isabelle Desloges
Nathalie Gontard Julien Bras



PII: S0144-8617(16)30409-X
DOI: <http://dx.doi.org/doi:10.1016/j.carbpol.2016.04.048>
Reference: CARP 10988

To appear in:

Received date: 13-1-2016
Revised date: 4-4-2016
Accepted date: 9-4-2016

Please cite this article as: Lavoine, Nathalie., Guillard, Valérie., Desloges, Isabelle., Gontard, Nathalie., & Bras, Julien., Active bio-based food-packaging: Diffusion and release of active substances through and from cellulose nanofiber coating toward food-packaging design. *Carbohydrate Polymers* <http://dx.doi.org/10.1016/j.carbpol.2016.04.048>

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Active bio-based food-packaging: Diffusion and release of active substances through and from cellulose nanofiber coating toward food-packaging design

Nathalie Lavoine^{1,2,3*}, Valérie Guillard⁴, Isabelle Desloges^{1,2}, Nathalie Gontard⁴, and Julien Bras^{1,2}

Highlights

- Modeling of active substance releases through and from cellulose nanofiber coating
- Investigation of one mathematical solution of the Fick's second law of diffusion
- Comparison of two different substances: caffeine vs chlorhexidine digluconate (CHX)
- Model validation with caffeine: Predominantly diffusion-controlled release proved
- Predictive simulation of the behavior of the developed active paper-based packaging

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