### Accepted Manuscript

Title: Synthesis of hybrid paper sheets with enhanced air barrier and antimicrobial properties for food packaging

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PII: S0144-8617(17)30297-7

DOI: http://dx.doi.org/doi:10.1016/j.carbpol.2017.03.041

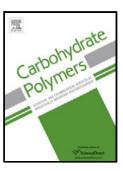
Reference: CARP 12130

To appear in:

Received date: 17-1-2017 Revised date: 5-3-2017 Accepted date: 12-3-2017

Please cite this article as: Samahy, Magda A., Mohamed, Salah AA., Abdel Rehim, Mona H., & Mohram, Maysa E., Synthesis of hybrid paper sheets with enhanced air barrier and antimicrobial properties for food packaging. *Carbohydrate Polymers* http://dx.doi.org/10.1016/j.carbpol.2017.03.041

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## ACCEPTED MANUSCRIPT

# Synthesis of hybrid paper sheets with enhanced air barrier and antimicrobial properties for food packaging

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#### Highlights:

- Nanocellulose (NC) extracted from agricultural residue and chitosan (Ch) were used to modify paper sheets.
- Modified paper sheets showed minor improvement in burst and air permeability properties.
- Coating of paper sheets with NC/Ch formulations enhanced their mechanical and air permeability properties.
- Paper with antibacterial power have been obtained.

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