

## Accepted Manuscript

Title: Stress transfer and matrix-cohesive fracture mechanism in microfibrillated cellulose-gelatin nanocomposite films

Authors: Franck Quero, Cristina Padilla, Vanessa Campos, Jorge Luengo, Leonardo Caballero, Francisco Melo, Qiang Li, Stephen J. Eichhorn, Javier Enrione



PII: S0144-8617(18)30445-4  
DOI: <https://doi.org/10.1016/j.carbpol.2018.04.059>  
Reference: CARP 13513

To appear in:

Received date: 22-1-2018  
Revised date: 22-3-2018  
Accepted date: 15-4-2018

Please cite this article as: Quero, Franck., Padilla, Cristina., Campos, Vanessa., Luengo, Jorge., Caballero, Leonardo., Melo, Francisco., Li, Qiang., Eichhorn, Stephen J., & Enrione, Javier., Stress transfer and matrix-cohesive fracture mechanism in microfibrillated cellulose-gelatin nanocomposite films. *Carbohydrate Polymers* <https://doi.org/10.1016/j.carbpol.2018.04.059>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## Stress transfer and matrix-cohesive fracture mechanism in microfibrillated cellulose-gelatin nanocomposite films

Franck Quero<sup>1\*</sup>, Cristina Padilla<sup>2</sup>, Vanessa Campos<sup>2</sup>, Jorge Luengo<sup>3</sup>, Leonardo Caballero<sup>4</sup>, Francisco Melo<sup>4</sup>, Qiang Li<sup>5</sup>, Stephen J. Eichhorn<sup>5,6</sup>, Javier Enrione<sup>2</sup>

<sup>1</sup>Laboratorio de Nanocelulosa y Biomateriales, Departamento de Ingeniería Química, Biotecnología y Materiales, Facultad de Ciencias Físicas y Matemáticas, Universidad de Chile, Avenida Beauchef 851, Santiago, Chile.

<sup>2</sup>Biopolymer Research and Engineering Lab (BiopREL), Escuela de Nutrición y Dietética, Universidad de los Andes, Chile.

<sup>3</sup>Research & Development Center, CMPC Celulosa S.A., Avenida Julio Hemmelmann 670, Nacimiento, Chile

<sup>4</sup>Departamento de Física, Universidad de Santiago de Chile, Av. Ecuador 3493, Santiago, Chile.

<sup>5</sup>College of Engineering, Mathematics and Physical Sciences, University of Exeter, North Park Road, EX4 4QF Exeter, UK.

\*Corresponding author: Laboratorio de Nanocelulosa y Biomateriales, Departamento de Ingeniería Química, Biotecnología y Materiales, Facultad de Ciencias Físicas y Matemáticas, Universidad de Chile, Av. Beauchef 851, Santiago, Chile. E-mail address: [fquero@ing.uchile.cl](mailto:fquero@ing.uchile.cl) (F. Quero). Tel: +562 29784669.

<sup>6</sup>Present address: Bristol Composites Institute (ACCIS), University of Bristol, Queen's Building, University Walk, Bristol, BS8 1TR, United Kingdom.

Download English Version:

<https://daneshyari.com/en/article/7782064>

Download Persian Version:

<https://daneshyari.com/article/7782064>

[Daneshyari.com](https://daneshyari.com)