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Authors: John Nsor-Atindana, H. Douglas Goff, Wei Liu, Maoshen Chen, Fang Zhong



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## **The resilience of nanocrystalline cellulose viscosity to simulated digestive processes and its influence on glucose diffusion.**

John Nsor-Atindana,<sup>a,b,c</sup> H. Douglas Goff,<sup>d</sup> Wei Liu<sup>a,b</sup>, Maoshen Chen<sup>a,b</sup>, and, Fang Zhong,<sup>a,b,\*</sup>

<sup>a</sup> State Key Laboratory of Food Science and Technology, Jiangnan University, Wuxi 214122, China

<sup>b</sup> School of Food Science and Technology, Jiangnan University, Wuxi 214122, China

<sup>c</sup> Department of Nutrition and Dietetics, University of Health Allied Sciences, Ho, Ghana.

<sup>d</sup> Department of Food Science, University of Guelph, Canada.

\*Corresponding author

Tel: +86-510-85328307

Email address: [fzhong@jiangnan.edu.cn](mailto:fzhong@jiangnan.edu.cn) (Fang Zhong)

### **Highlights**

- Acid synthesized NCC crystalline and need-like with broad size distribution
- NCC viscosity sensitive to digestive constituents and modulated digesta viscosity
- Aspect ratio and charge density influence NCC suspension viscosity
- Dilution mainly responsible for reduction of viscosity at GIT condition exposure.
- Viscosity retention caused reduction in glucose release and diffusion rates

### **Abstract**

Intake of dietary fibre may modulate digesta viscosity and suppress the rise of postprandial plasma glucose by attenuating glucose diffusion in the lumen of the gastrointestinal tract. In this

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