Arabinoxylan/Cellulose Nanocrystal Hydrogels with Tunable Mechanical Properties

Malika Talantikite*, Nadège Leray, Céline Moreau, Bernard Cathala
UR1268 Biopolymères Interactions Assemblages, INRA, Rue de la géraudière, 44316,
Nantes, France

Corresponding author: <u>malika.talantikite@inra.fr</u>

Figures

Figure S1. POM images of gels formed with 10 g/L CNC and (a) 7.5 g/L, (b) 10 g/L and (c)12 g/L AX.

Figure S2. (a) Viscosity vs. concentration for CNC suspensions and AX solutions; (b) Viscosity measurements for solutions containing 10 g/L CNC in the presence of AX at different concentrations at 20°C.

Figure S3. (a) G' and G'' variation as a function of % strain; and (b) variation of G' and G'' as a function of time after breaking for 10 g/L CNC + 10 g/L AX at 20°C.

Figure S4. The effect of NaCl addition on the viscosity of a solution containing 10 g/L CNC + 5 g/L AX at 20°C, with photos of the resulting mixtures showing the salt effect.

Figure S5. POM images of solution containing 10 g/L CNC and 10 g/L AX (a, b) before the action of the enzyme, and (c, d) after the action of enzyme with and without the retardation plate.

Supplementary Figures



Figure S1. POM images of gels formed with 10 g/L CNC and (a) 7.5 g/L, (b) 10 g/L and (c)12 g/L AX.

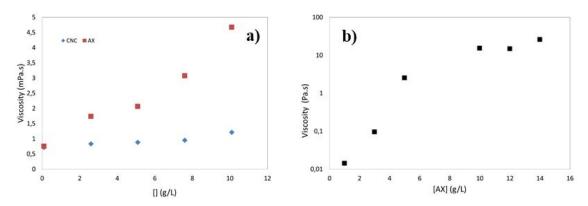


Figure S2. (a) Viscosity vs. concentration for CNC suspensions and AX solutions; (b) Viscosity measurements for solutions containing 10 g/L CNC in the presence of AX at different concentrations at 20°C.

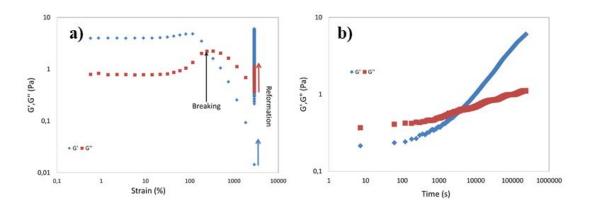


Figure S3. (a) G' and G'' variation as a function of % strain; and (b) variation of G' and G'' as a function of time after breaking for 10 g/L CNC + 10 g/L AX at 20°C.

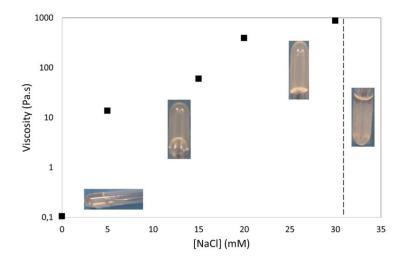


Figure S4. The effect of NaCl addition on the viscosity of a solution containing 10 g/L CNC + 5 g/L AX at 20°C, with photos of the resulting mixtures showing the salt effect.

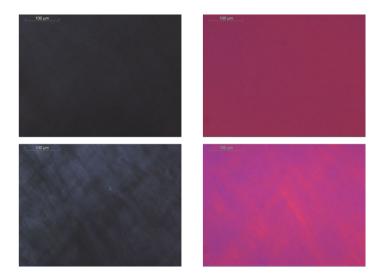


Figure S5. POM images of solution containing 10 g/L CNC and 10 g/L AX (a, b) before the action of the enzyme, and (c, d) after the action of enzyme with and without the retardation plate.