# Arabinoxylan/Cellulose Nanocrystal Hydrogels with Tunable Mechanical Properties 

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## Figures

Figure S1. POM images of gels formed with $10 \mathrm{~g} / \mathrm{L} \mathrm{CNC} \mathrm{and} \mathrm{(a)} 7.5 \mathrm{~g} / \mathrm{L}$, (b) $10 \mathrm{~g} / \mathrm{L}$ and (c) 12 g/L AX.
Figure S2. (a) Viscosity vs. concentration for CNC suspensions and AX solutions; (b) Viscosity measurements for solutions containing $10 \mathrm{~g} / \mathrm{L}$ CNC in the presence of AX at different concentrations at $20^{\circ} \mathrm{C}$.

Figure S3. (a) $G^{\prime}$ and $G^{\prime \prime}$ variation as a function of $\%$ strain; and (b) variation of $G^{\prime}$ and $G^{\prime \prime}$ as a function of time after breaking for $10 \mathrm{~g} / \mathrm{L} \mathrm{CNC}+10 \mathrm{~g} / \mathrm{L} \mathrm{AX}$ at $20^{\circ} \mathrm{C}$.
Figure S4. The effect of NaCl addition on the viscosity of a solution containing $10 \mathrm{~g} / \mathrm{L} \mathrm{CNC}+$ $5 \mathrm{~g} / \mathrm{L}$ AX at $20^{\circ} \mathrm{C}$, with photos of the resulting mixtures showing the salt effect.

Figure S5. POM images of solution containing $10 \mathrm{~g} / \mathrm{L} \operatorname{CNC}$ and $10 \mathrm{~g} / \mathrm{L} A X(a, b)$ 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 $10 \mathrm{~g} / \mathrm{L} \mathrm{CNC}$ and (a) $7.5 \mathrm{~g} / \mathrm{L}$, (b) $10 \mathrm{~g} / \mathrm{L}$ and (c) $12 \mathrm{~g} / \mathrm{L} \mathrm{AX}$.


Figure S2. (a) Viscosity vs. concentration for CNC suspensions and AX solutions; (b) Viscosity measurements for solutions containing $10 \mathrm{~g} / \mathrm{L}$ CNC in the presence of AX at different concentrations at $20^{\circ} \mathrm{C}$.


Figure S3. (a) $G^{\prime}$ and $G^{\prime \prime}$ variation as a function of \% strain; and (b) variation of $G^{\prime}$ and $G^{\prime \prime}$ as a function of time after breaking for $10 \mathrm{~g} / \mathrm{L} \mathrm{CNC}+10 \mathrm{~g} / \mathrm{L} \mathrm{AX}$ at $20^{\circ} \mathrm{C}$.


Figure S4. The effect of NaCl addition on the viscosity of a solution containing $10 \mathrm{~g} / \mathrm{L} \mathrm{CNC}$ $+5 \mathrm{~g} / \mathrm{L} \mathrm{AX}$ at $20^{\circ} \mathrm{C}$, with photos of the resulting mixtures showing the salt effect.


Figure S5. POM images of solution containing $10 \mathrm{~g} / \mathrm{L} C N C$ and $10 \mathrm{~g} / \mathrm{L} A X(\mathrm{a}, \mathrm{b})$ before the action of the enzyme, and (c,d) after the action of enzyme with and without the retardation plate.

