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Title: Extraction of cellulose nano-crystals from old corrugated container fiber using phosphoric acid and enzymatic hydrolysis followed by sonication

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1 Research highlights

- 2 ● OCC was used as a source for CNC production.
- 3 ● A combined process consisting of phosphoric acid hydrolysis, enzymatic hydrolysis and
- 4 sonication was proposed for CNC production.
- 5 ● Enzymatic hydrolysis was effective in enhancing CNC yield.
- 6 ● Increasing enzymatic hydrolysis time improved the crystallinity and thermal stability of
- 7 resulting CNC.

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