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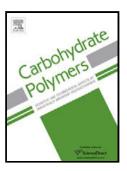
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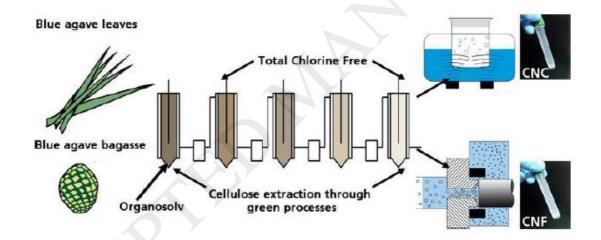
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GRAPHICAL ABSTRACT



Highlights

- Blue agave bagasse and leaves were collected for green valorization of waste biomass
- An organosolv delignification and TCF bleaching were selected for cellulose extraction
- Cellulose nanoparticles were obtained from blue agave and their properties were analyzed
- First study to fully assess cellulose nanoparticles from blue agave waste

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