Supplementary Data

Article

PLA-based Films Reinforced with Cellulose Nanofibers from *Salicornia ramosissima* By-product with Proof of Concept in High-Pressure Processing

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Supplementary Table S1. Experimental design for the preparation of PLA-based films by solvent casting (SC) and electrospinning (ES), showing the combination of processing technique, formulation and PLA/CNF concentrations used in each experimental condition.

Run*	Processing technique (Factor A)	Formulation (Factor B)	PLA concentration (% w/v)	CNF concentration (wt%)
1	SC	Neat PLA	2	0
2	SC	PLA + CNF	2	0.5
3	SC	PLA + CNF	2	1
4	ES	Neat PLA	10	0
5	ES	PLA + CNF	10	0.5
6	ES	PLA + CNF	10	1

*Run: sample code for each run: (1) Control-SC; (2) CNF05-SC; (3) CNF1-SC; (4) Control-ES; (5) CNF05-ES; (6) CNF1-ES

Supplementary Table S2. TGA values at the second stage of thermal decomposition of PLA-based films (control) and reinforced with CNF.

Sample	$T_{max\ (10\%)}$ (ºC)*	Remaining ash (%) at 600 ºC
$Control_{SC}$	302	99.0
$CNF_{0.5\text{-}SC}$	272	100.0
$CNF_{1\text{-}SC}$	300	99.0
$Control_{ES}$	294	98.0
$CNF_{0.5\text{-}ES}$	292	99.2
$CNF_{1\text{-}ES}$	292	100.0

* Tmax ($_{10\%}$): Temperature corresponding to 10% weight loss. Residue at 600 °C: percentage of mass remaining at 600 °C; values slightly above 100% were adjusted to 100% owing to experimental uncertainties in TGA.