

## Supplementary materials

for

# Improved antioxidant and mechanical properties of food packaging films based on chitosan/deep eutectic solvent, containing açai-filled microcapsules

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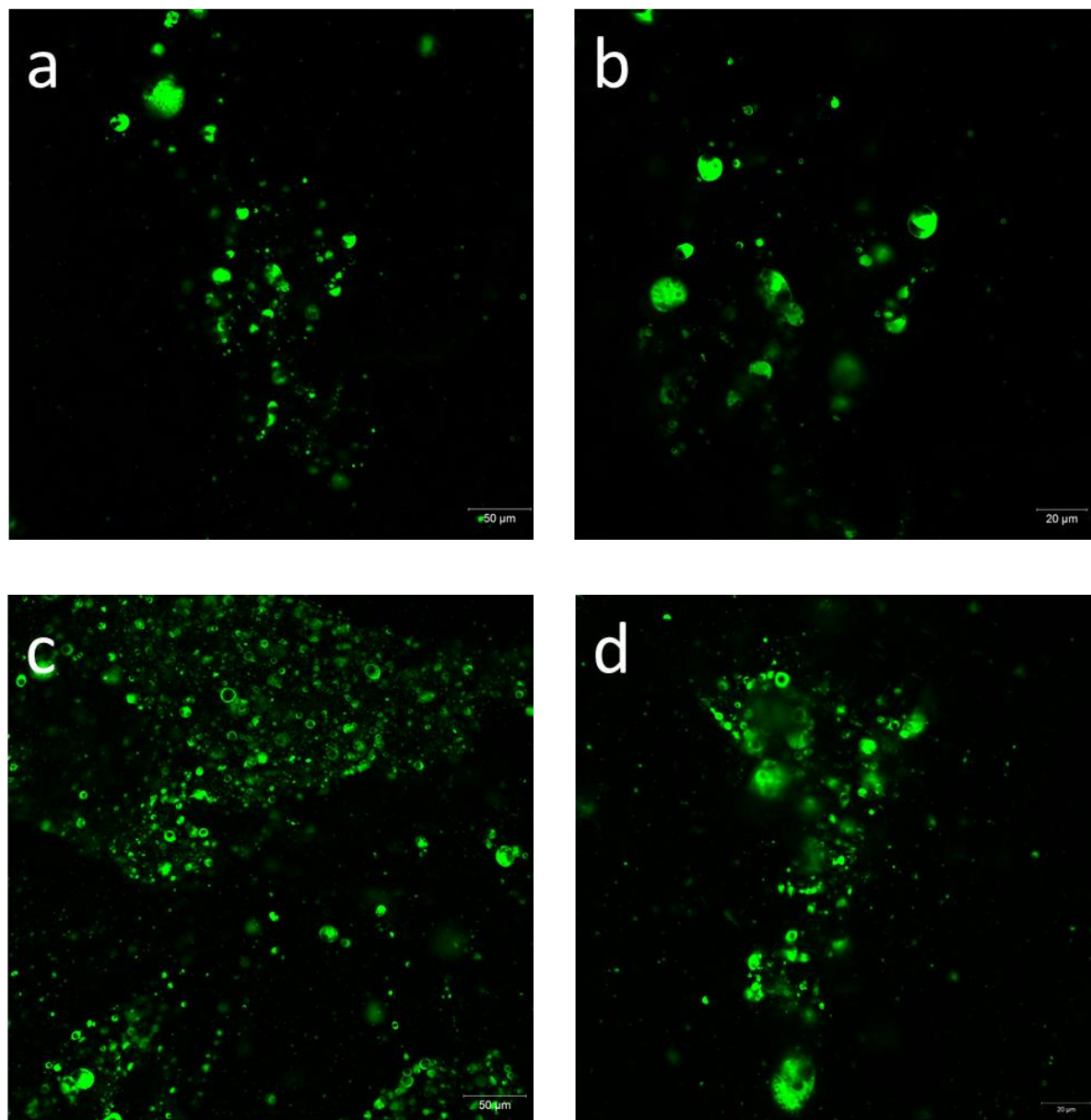
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**Figure S1.** Selected 2D micrographs obtained by CSLM for CS-DES films, (a) F5/2 at 20x, (b) F5/2 at 40x, (c) F5/5 at 20x, and (d) F5/10 at 40x magnifications. The açai oil encapsulated in the PECs appears in green, whereas the CS-DES based matrices appear in black.

**Table S1.** E' (MPa) at 25 °C and tan  $\delta$  (°C) for the CS-based films.

Sample	E' (MPa) at 25 °C	tan $\delta$ (°C)		
		Peak <sub>1</sub>	Peak <sub>2</sub>	Peak <sub>3</sub>
F0/0	211.3	-8.1	165.3	263
F5/0	2.65	2.2	188	254
F5/0.5	1.13	-9.2	72	252
F5/2	0.91	-4.5	88.5	254
F5/10	0.98	-3.4	86.3	254

**Table S2.** TGA and DTG data for CS-based films.

Sample	T <sub>onset</sub> (°C)	T <sub>peak</sub> (°C)	Residue (%) at 700°C
F0/0	241.3	294.2	32.44
F5/0	169.9	281.4	16.40
F5/0.25	201.8	256.1	12.59
F5/0.5	173.9	253.5	11.49
F5/1	192.8	252.9	10.98
F5/2	171.3	254.8	13.22
F5/5	174.6	246.3	12.38
F5/10	182.2	251.8	12.64