

Supplementary Material

Novel pectin-based nanocomposite film for active food packaging applications

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Table S1

Figure S1

Figure S2

FFSs	Diameters of inhibition zones (mm)					
	<i>Staphylococcus aureus</i>	<i>E. coli</i> O157:H7	<i>Salmonella enterica</i>	<i>Klebsiella pneumoniae</i>	<i>Pseudomonas aeruginosa</i>	<i>Proteus mirabilis</i>
PC	0 ^c	0 ^d	0 ^d	0 ^c	0 ^d	0 ^b
CNC/PC I	0 ^c	0 ^d	0 ^d	0 ^c	0 ^d	0 ^b
CNC/PC II	0 ^c	0 ^d	0 ^d	0 ^c	0 ^d	0 ^b
CNC/PC III	0 ^c	0 ^d	0 ^d	0 ^c	0 ^d	0 ^b
CNC/ PC IIII	0 ^c	0 ^d	0 ^d	0 ^c	0 ^d	0 ^b
ZnO/CNC/PC I	12.50 ± 0.70 ^b	8.0 ± 0 ^c	8.0 ± 0.70 ^c	0 ^c	7.50 ± 1.0 ^c	0 ^b
ZnO/CNC/PC II	15.0 ± 0.70 ^{ab}	12.0 ± 0.57 ^b	13.50 ± 0.57 ^b	0 ^c	12.0 ± 1.0 ^b	0 ^b
ZnO/CNC/PC III	17.0 ± 1.41 ^{ab}	15.0 ± 0.70 ^a	15.50 ± 0.70 ^{ab}	8.50 ± 1.41 ^b	15.50 ± 2.12 ^{ab}	0 ^b
ZnO/CNC/PC IIII	19.0 ± 2.21 ^a	16.0 ± 0 ^a	18.0 ± 1.41 ^a	11.50 ± 0.70 ^a	17.50 ± 0.70 ^a	8.50 ± 1.41 ^a

Table S1 . AMA of pectin-based FFSs against different bacterial strains. Values are presented as means ± SD ($n = 3$) from at least two independent experiments. Different superscript letters within the same column indicate significant differences ($p < 0.05$).

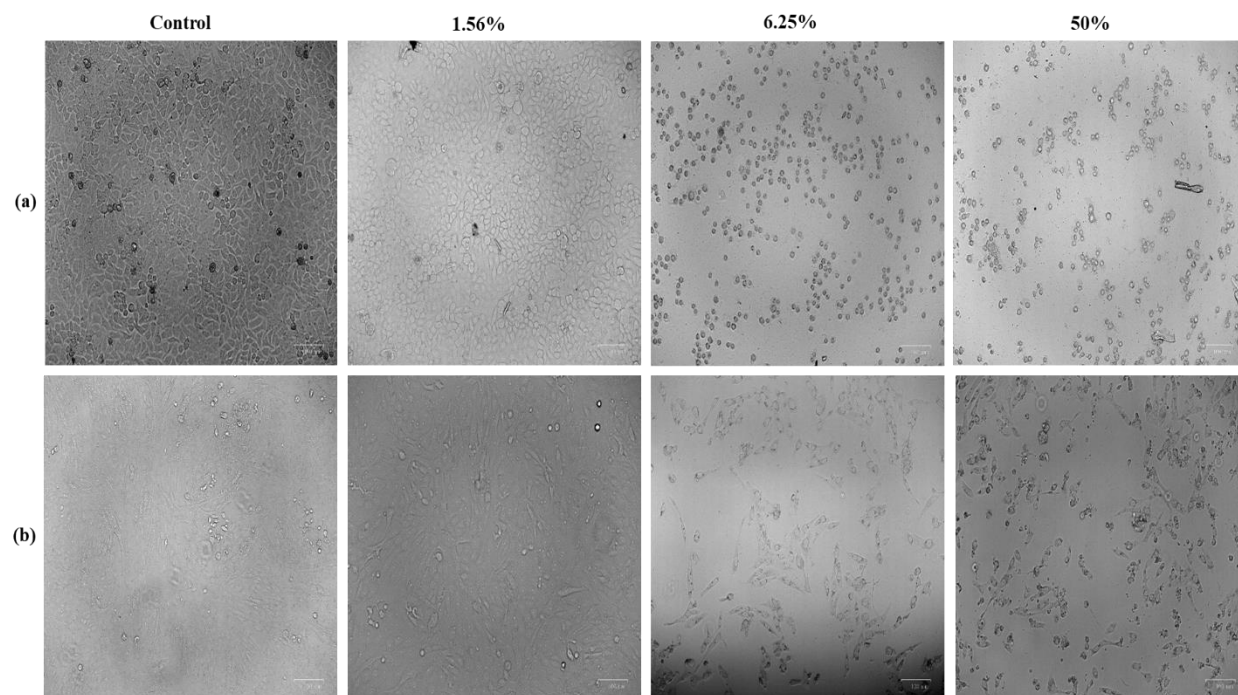


Figure S1: Morphology of Caco-2 (a) and WI-38 (b) treated with different concentrations of FFSs.

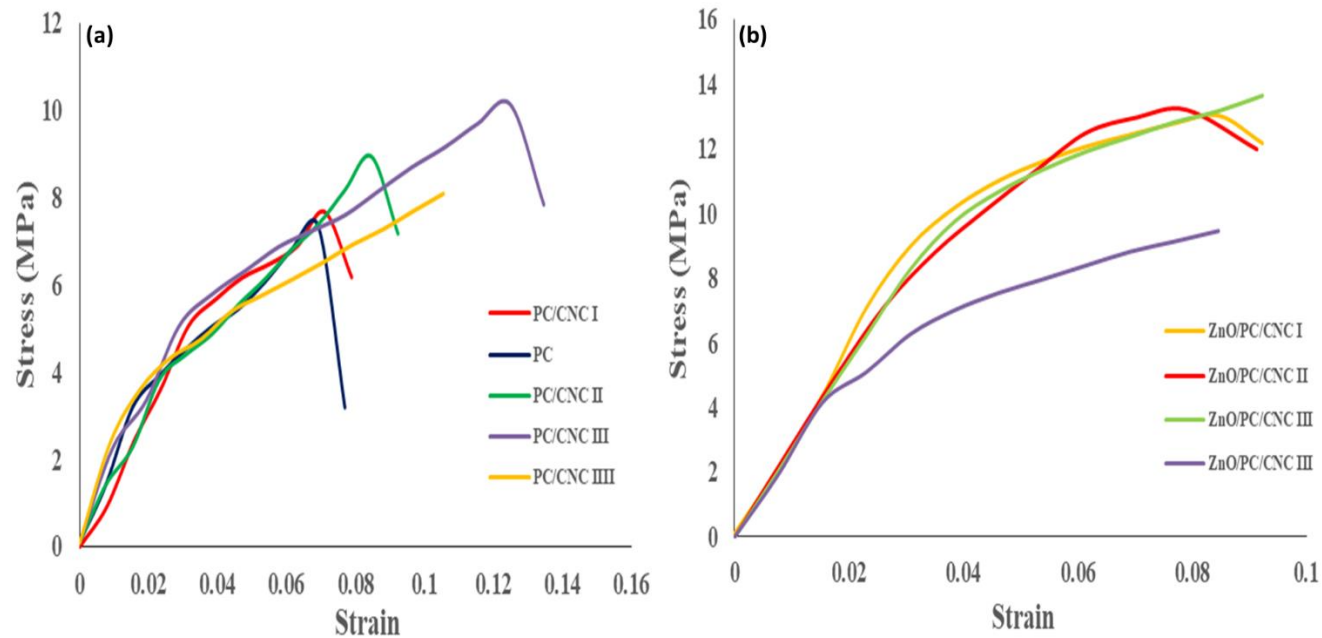


Figure S2: Stress-strain curves of one replicate of PC and PC/CNC (a) and ZnO/PC/CNC (b) nanocomposites.