

Electronic Supplementary Information

An Environmentally Friendly Approach to Functionalizing Carbon Nanotubes for Fabricating Strong Biocomposite Film

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Table S1. Mechanical properties of pure chitosan and CNT filled chitosan composites, respectively.

Sample	MWCNT (wt%)	Breaking stress [MPa]	Elongation- at-break [%]	Modulus [GPa]
Pure chitosan	0	35.9 ± 1.8	23.9 ± 1.4	1.40 ± 0.95
1% S-MWCNT/Chitosan	1	62.7 ± 3.9	27.7 ± 1.9	1.96 ± 0.10
3% S-MWCNT/Chitosan	3	75.4 ± 3.8	22.3 ± 1.3	2.18 ± 0.16
5% S-MWCNT/Chitosan	5	85.0 ± 4.3	10.6 ± 0.6	2.90 ± 0.15
1% Pristine MWCNT/Chitosan	1	45.2 ± 1.9	23.1 ± 1.4	1.62 ± 0.23
3% Pristine MWCNT/Chitosan	3	52.1 ± 2.6	18.6 ± 2.3	1.98 ± 0.41
5% Pristine MWCNT/Chitosan	5	61.8 ± 2.9	13.4 ± 2.9	2.16 ± 0.17

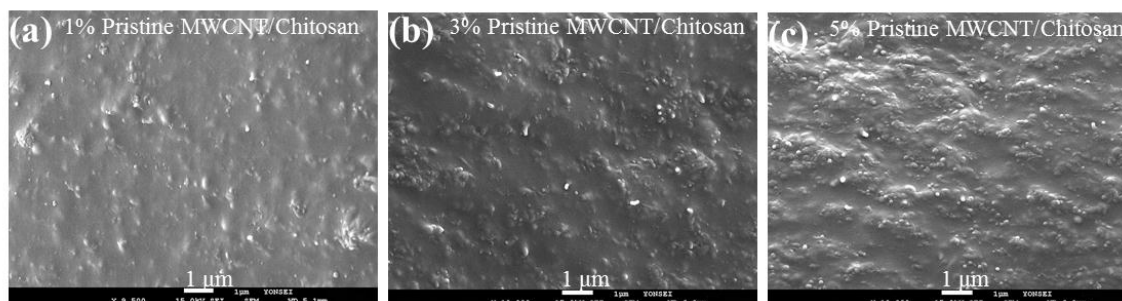


Figure S1. SEM images of biocomposite films. Pure MWCNT were not individually dispersed in chitosan matrix.

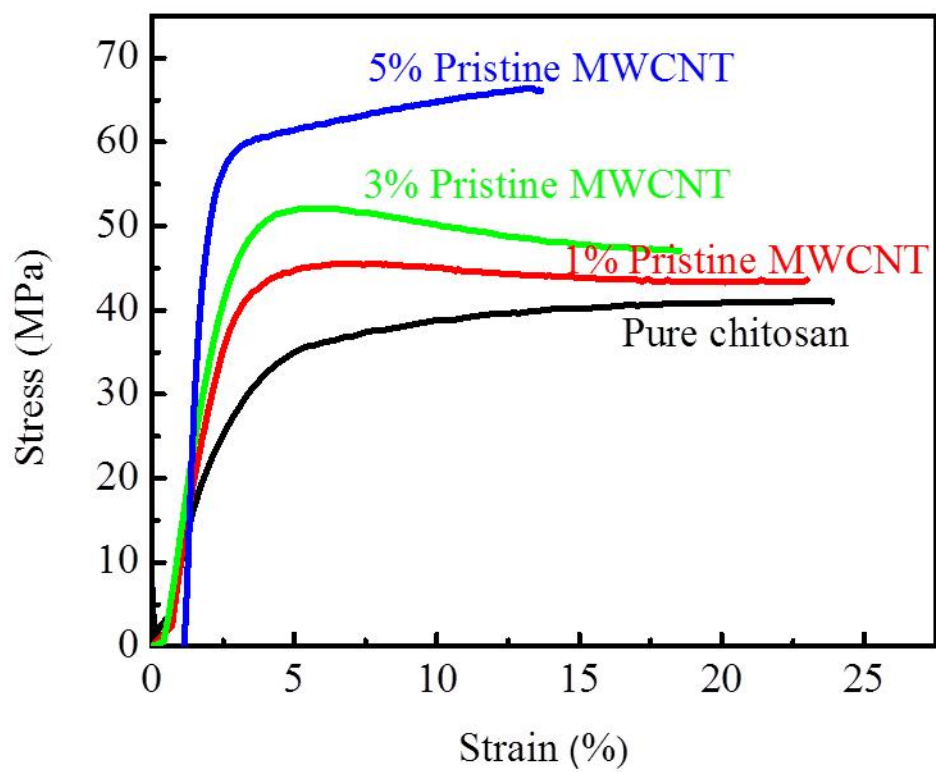


Figure S2. Stress-strain curves of pure chitosan and Pristine MWCNT-filled chitosan composite films.

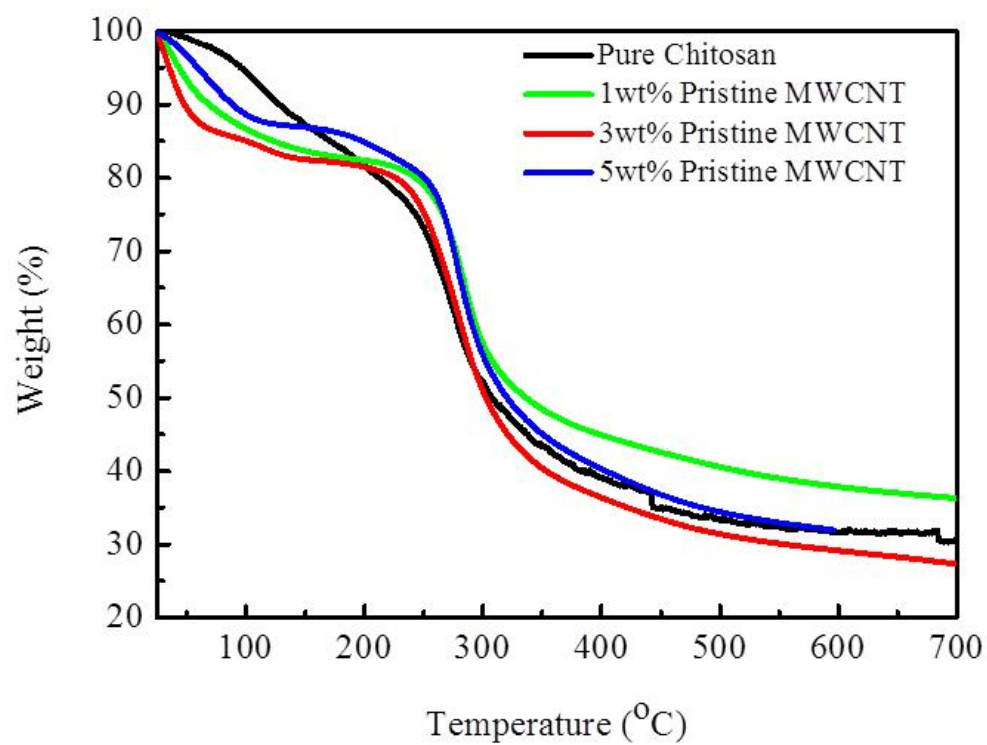


Figure S3. Thermogravimetric curve of pure chitosan and pristine MWCNT-filled chitosan composite films