

Article

Preparation and Characterization of Curcumin Nanoemulgel Utilizing Ultrasonication Technique for Wound Healing: In Vitro, Ex Vivo, and In Vivo Evaluation

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Supplementary Materials

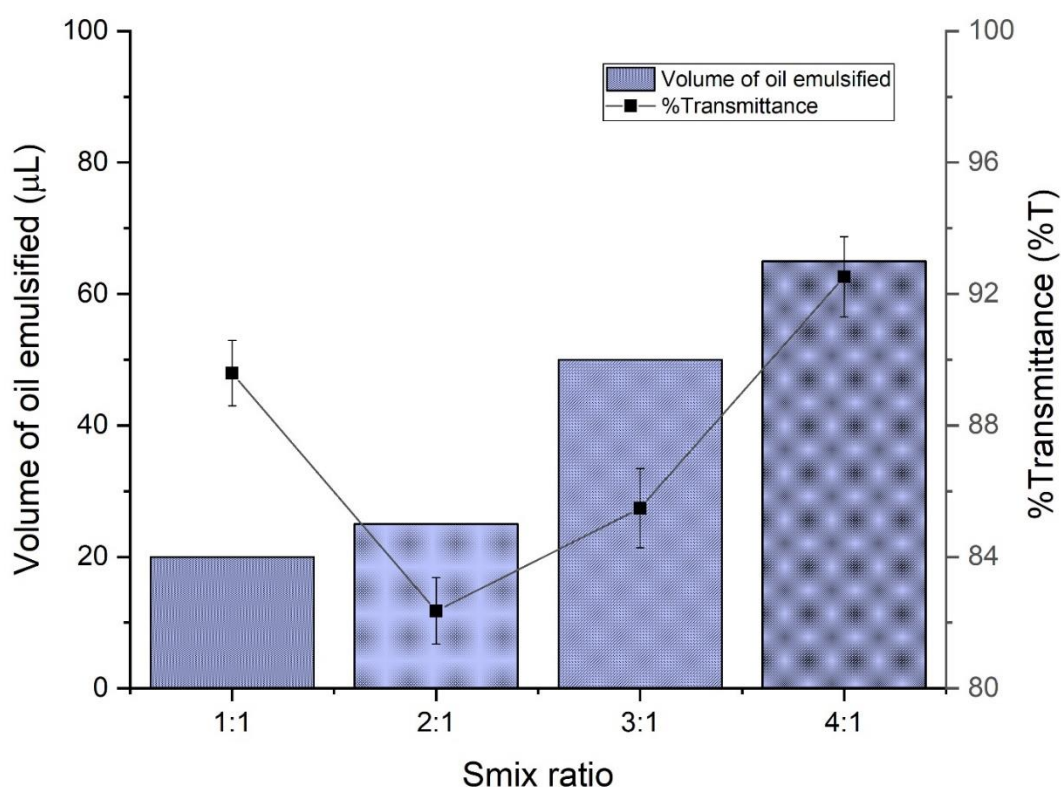
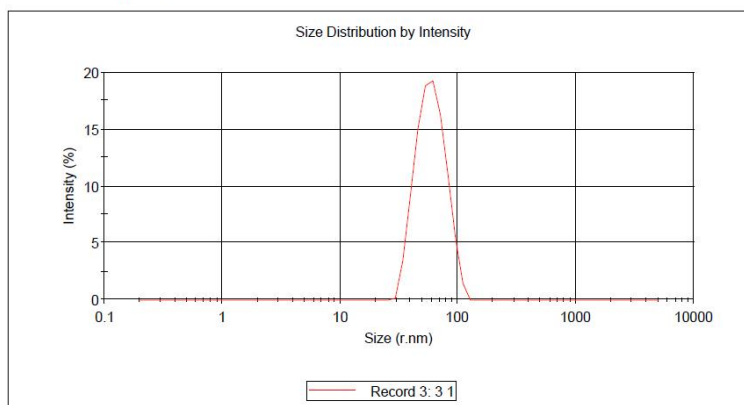


Figure S1. Volume of optimized oil phase (Labrafac PG) emulsified in Smix phase (Tween 80 and PEG 400) at different ratios (1:1, 2:1, 3:1, and 4:1) to measure its emulsification efficiency and corresponding value of the percentage transmittance.

Results

	Diam. (nm)	% Intensity	Width (nm)
Z-Average (r.nm): 56.64	Peak 1: 60.77	100.0	16.77
Pdl: 0.054	Peak 2: 0.000	0.0	0.000
Intercept: 0.934	Peak 3: 0.000	0.0	0.000

Result quality : Good



Results

	Mean (mV)	Area (%)	Width (mV)
Zeta Potential (mV): -20.3	Peak 1: -20.3	100.0	5.39
Zeta Deviation (mV): 5.39	Peak 2: 0.00	0.0	0.00
Conductivity (mS/cm): 0.00570	Peak 3: 0.00	0.0	0.00

Result quality : Good

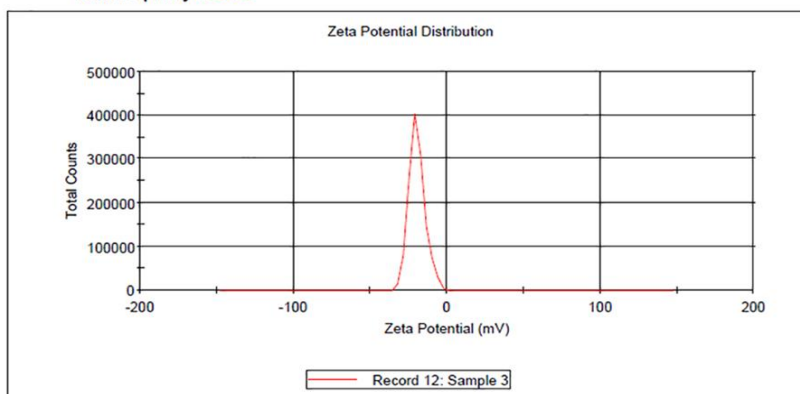
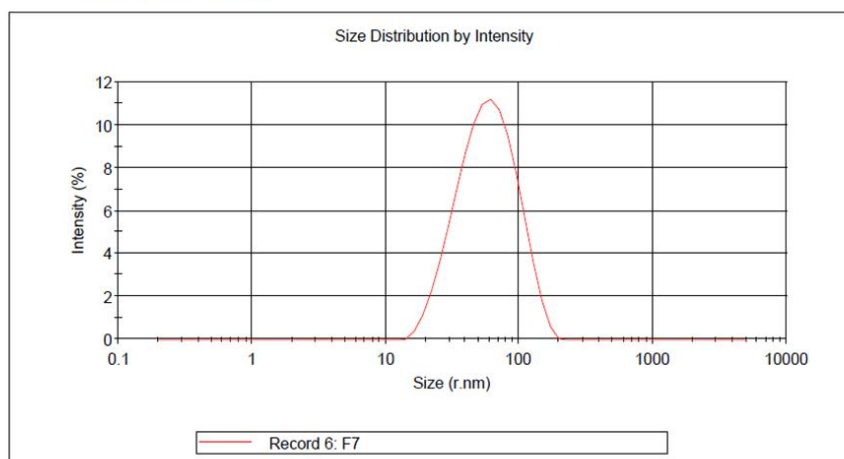


Figure S2. Droplet size (56.64 nm with PDI 0.054) and zeta potential (-20.3 mV) of NE6.

Results

	Diam. (nm)	% Intensity	Width (nm)
Z-Average (r.nm): 51.10	Peak 1: 63.58	100.0	30.61
Pdl: 0.181	Peak 2: 0.000	0.0	0.000
Intercept: 0.923	Peak 3: 0.000	0.0	0.000
Result quality : Good			



Results

	Mean (mV)	Area (%)	Width (mV)
Zeta Potential (mV): -18.8	Peak 1: -18.8	100.0	5.24
Zeta Deviation (mV): 5.24	Peak 2: 0.00	0.0	0.00
Conductivity (mS/cm): 0.00584	Peak 3: 0.00	0.0	0.00
Result quality : Good			

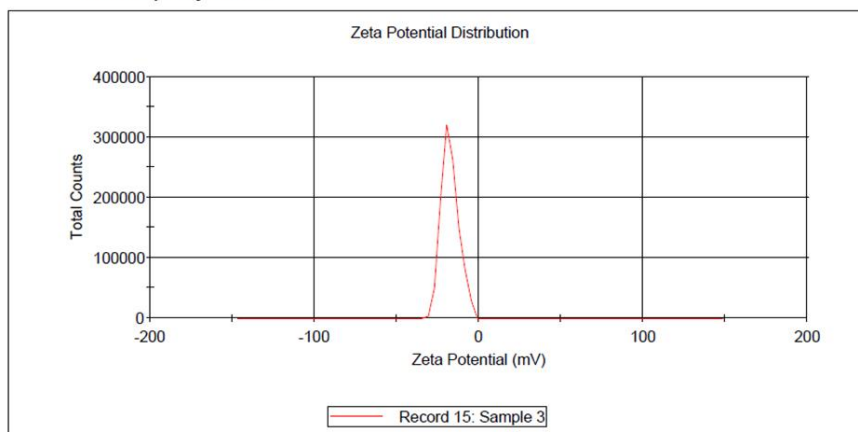
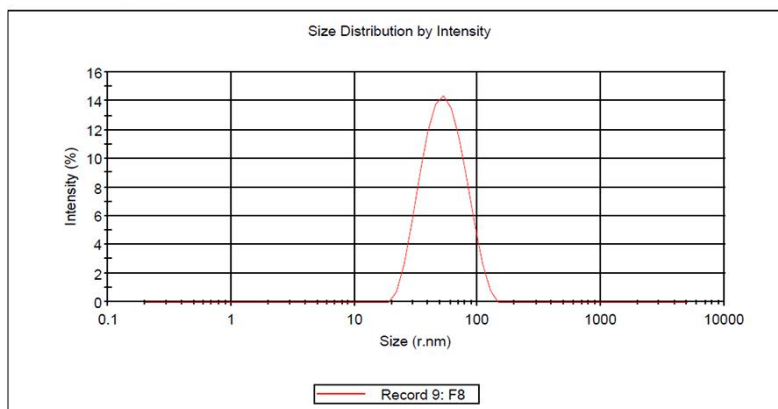


Figure S3. Droplet size (51.10 nm with PDI 0.181) and zeta potential (-18.8 mV) of NE7.

Results

	Diam. (nm)	% Intensity	Width (nm)
Z-Average (r.nm): 49.39	Peak 1: 56.37	100.0	21.25
Pdl: 0.113	Peak 2: 0.000	0.0	0.000
Intercept: 0.921	Peak 3: 0.000	0.0	0.000
Result quality : Good			



Results

	Mean (mV)	Area (%)	Width (mV)
Zeta Potential (mV): -18.1	Peak 1: -18.1	100.0	4.84
Zeta Deviation (mV): 4.84	Peak 2: 0.00	0.0	0.00
Conductivity (mS/cm): 0.0101	Peak 3: 0.00	0.0	0.00
Result quality : Good			

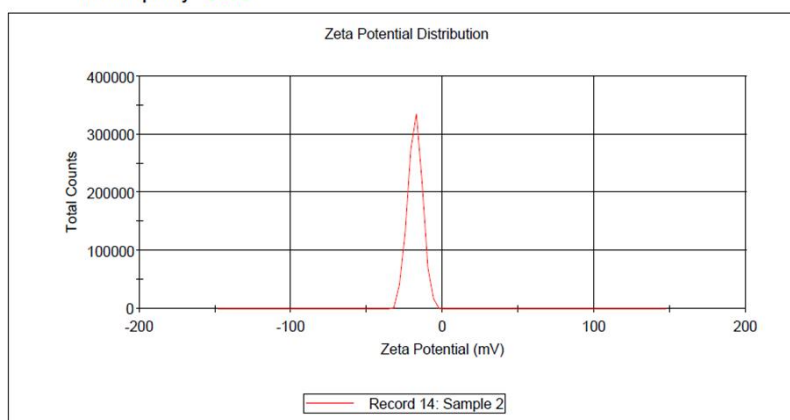


Figure S4. Droplet size (49.39 nm with PDI 0.113) and zeta potential (-18.1 mV) of NE8.

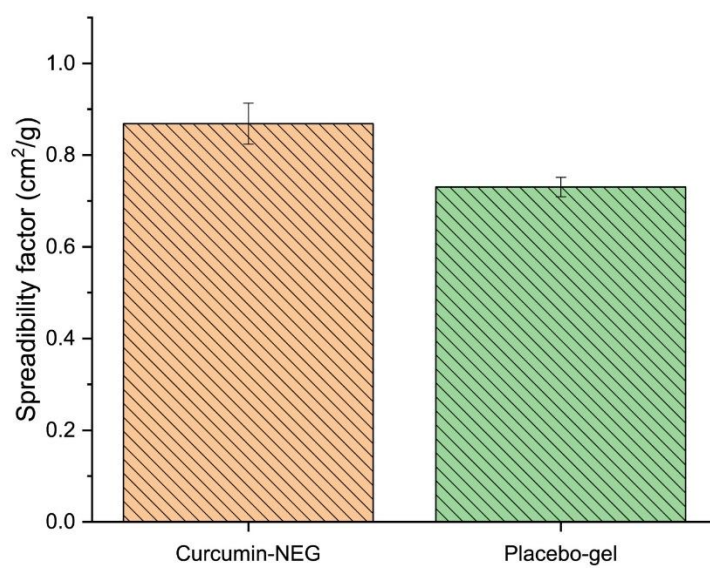


Figure S5. Spreadability behavior of curcumin NEG system and placebo gel system.