

Cinnamon-oil-loaded nanoliposomes with potent antibacterial and antibiofilm activities

Neveen M. Ellboudy¹, Bassma H Elwakil^{2*}, Marwa M. Shaaban³, Zakia A Olama¹

¹ Department of Botany & Microbiology, Faculty of Science,
Alexandria University, Alexandria 21568, Egypt

² Department of Medical Laboratory Technology, Faculty of Applied Health
Sciences Technology, Pharos University in Alexandria, Alexandria 21500, Egypt

³ Department of Pharmaceutical Chemistry, Faculty of Pharmacy,
Alexandria University, Alexandria 21568, Egypt

* Correspondence: bassma.hassan@pua.edu.eg

Supplementary data

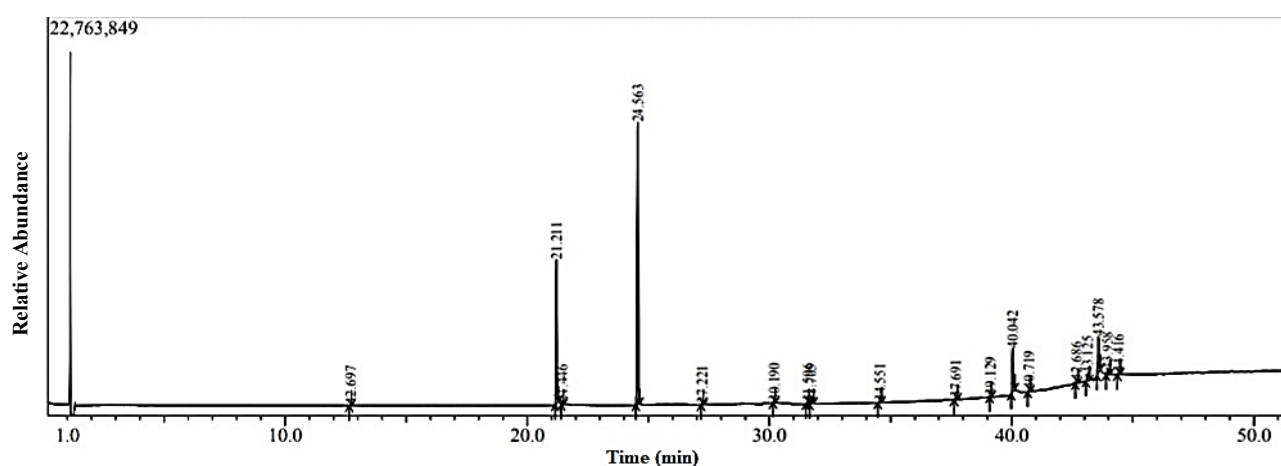
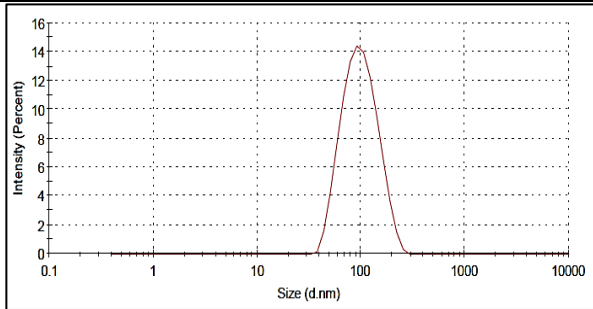


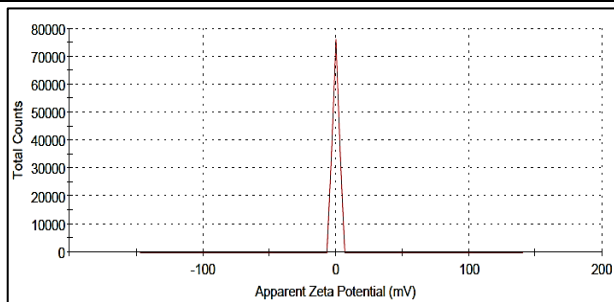
Figure S1. GC-MS chromatogram of cinnamon oil.

Table S1. The main predicted compounds of cinnamon oil extract structures.

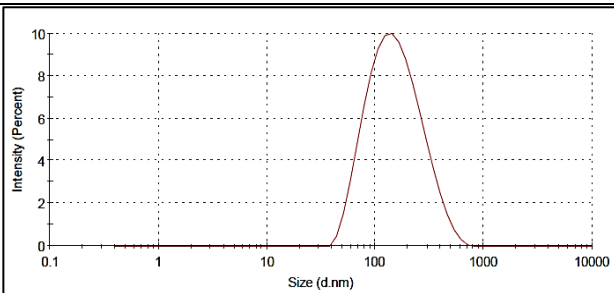
Peak	Retention time	Area (%)	Name
1	12.6	0.3	Benzaldehyde
2	21.2	23.5	Benzyl alcohol
3	21.4	0.3	2-propenal, 3-phenyl
4	24.5	52.1	2-propenal, 3-phenyl
5	27.2	0.3	3-allyl-6-methoxyphenol
6	30.1	0.2	Diethyl phthalate
7	31.5	0.7	1,7-di(3-ethylphenyl)
8	31.7	0.5	1,7-di(3-ethylphenyl)
9	34.5	0.4	1,2-diphenyltetramethyldisilane
10	37.6	0.4	Bis-di(trimethylsiloxy)phenylsiloxy propane
11	39.1	0.4	Hexadecenoic acid, 1 hydroxymethane
12	40.0	8.1	n-Hexadecenoic acid
13	40.7	0.5	Bis-di(trimethylsiloxy)phenylsiloxy propane
14	42.6	0.7	9-Octadecanoic acid,1,2,3-propane
15	43.1	2.1	Octadecanoic acid
16	43.5	7.7	Oleic acid
17	43.9	1.2	Triphenylphosphine oxide
18	44.4	0.6	9,12-octadecadienoic acid (Z,Z)



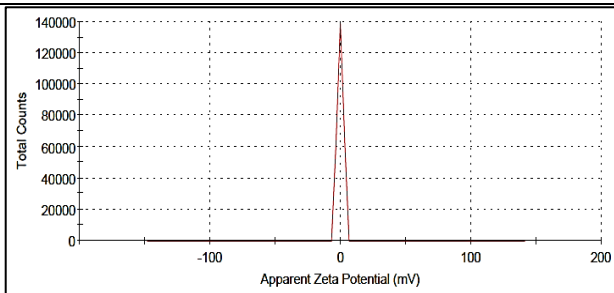
(a)



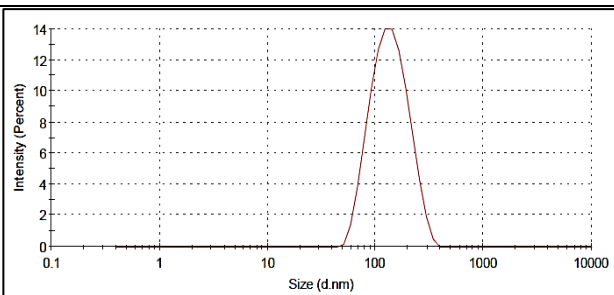
(b)



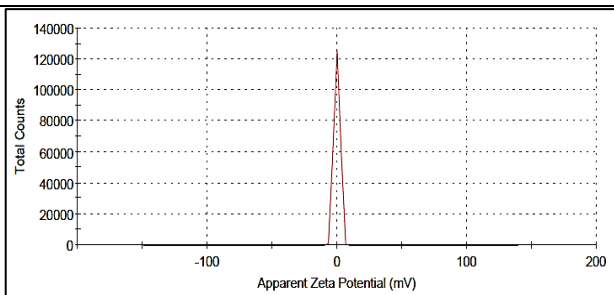
(c)



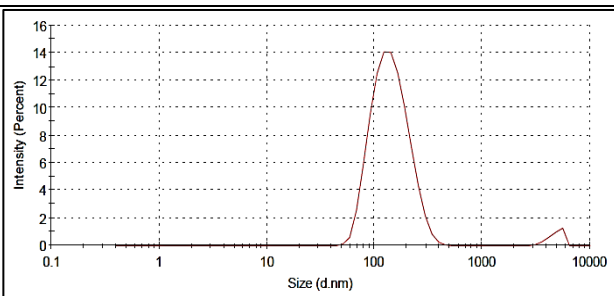
(d)



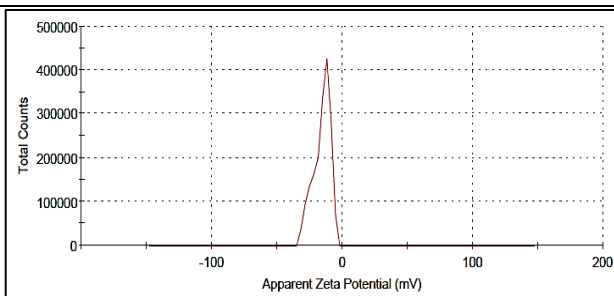
(e)



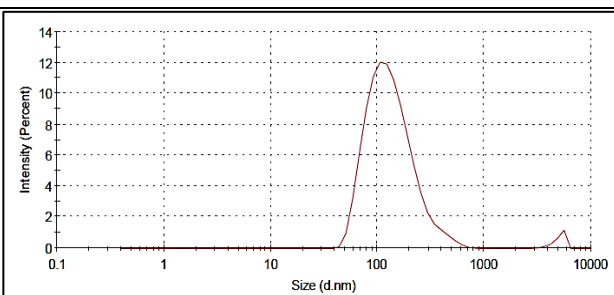
(f)



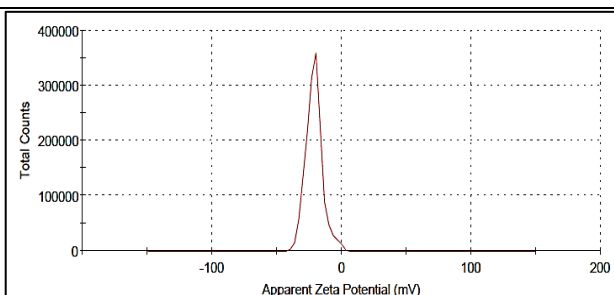
(g)



(h)



(i)



(j)

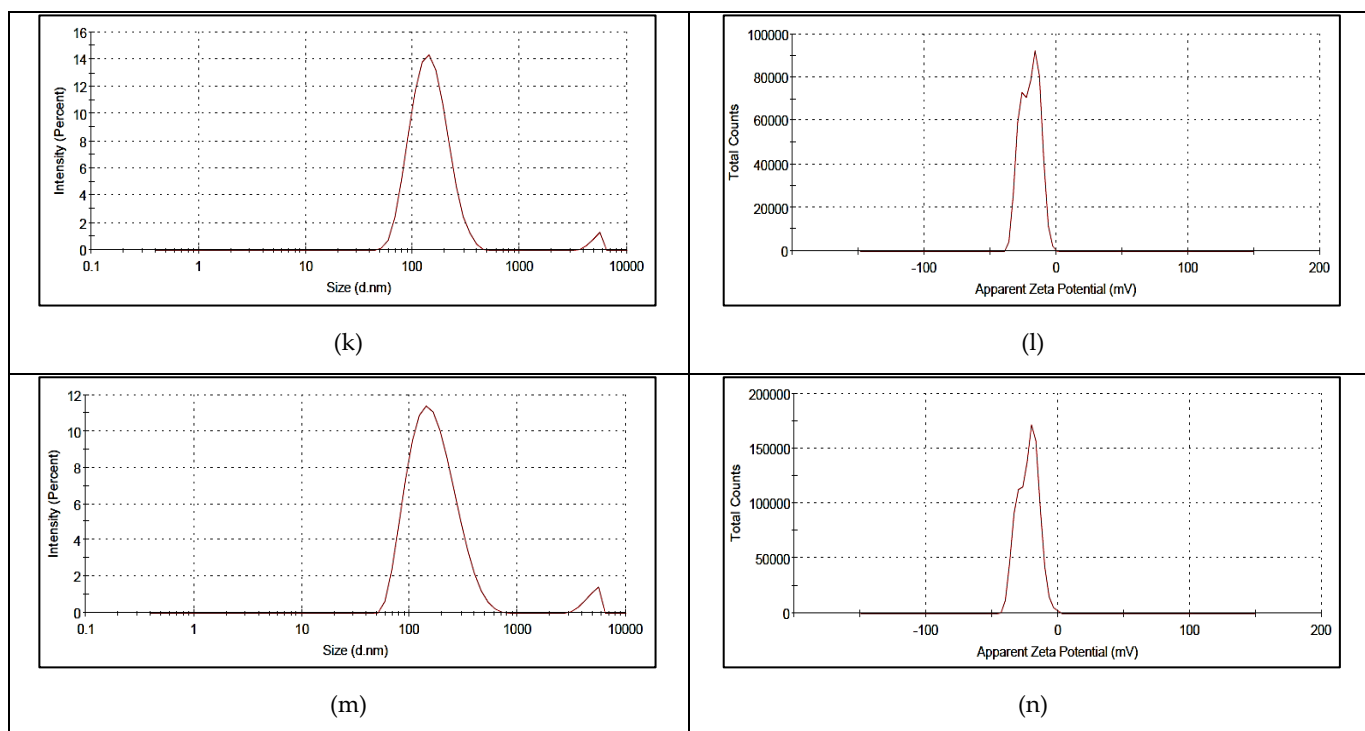


Figure S2. Zeta size and potential of the synthesized nanoliposomes: COE 2 (2 $\mu\text{g/mL}$; a, b), COE 5 (5 $\mu\text{g/mL}$; c, d), COE 10 (10 $\mu\text{g/mL}$; e, f), Colistin 2 (2 $\mu\text{g/mL}$; g, h), Colistin 5 (5 $\mu\text{g/mL}$; i, j), COE/Colistin 2 (2 $\mu\text{g/mL}$ each; k, l) and COE/Colistin 5 (5 $\mu\text{g/mL}$ each; m, n).