Application of Positron Annihilation Lifetime Spectroscopy (PALS) to Study the Nanostructure in Amphiphile Self-Assembly Materials: Phytantriol Cubosomes and Hexosomes

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SUPPLEMENTARY INFORMATION

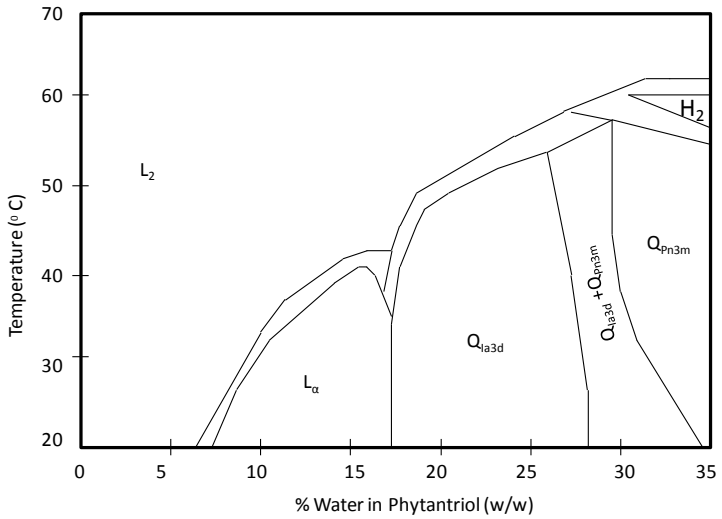
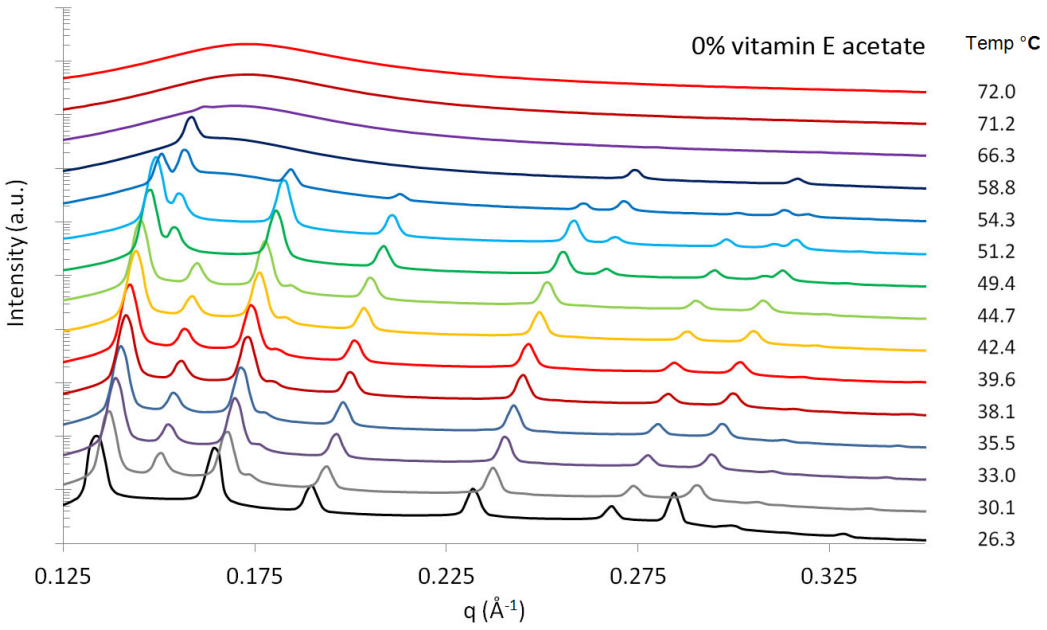
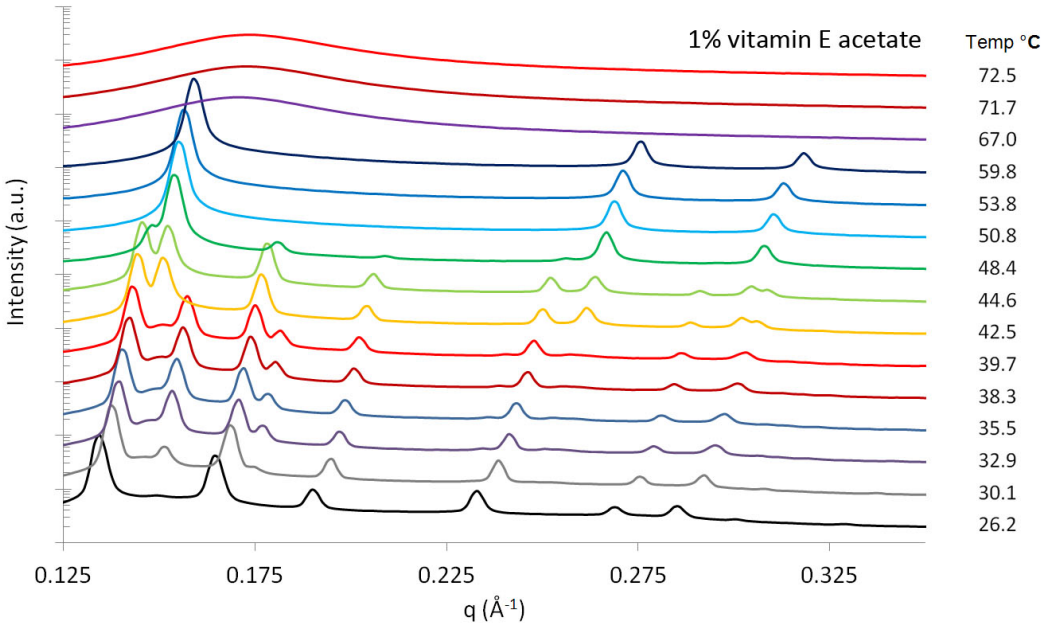


Figure S1 Partial phase diagram of phytantriol -water system (re-drawn from Dong *et al.*[1])


0% vitamin E acetate
Temp °C
72.0
71.2
66.3
58.8
54.3
51.2
49.4
44.7
42.4
39.6
38.1
35.5
33.0
30.1
26.3
Intensity (a.u.)
0.125
0.175
0.225
0.275
0.325
q (Å-1)


1% vitamin E acetate
Temp °C
72.5
71.7
67.0
59.8
53.8
50.8
48.4
44.6
42.5
39.7
38.3
35.5
32.9
30.1
26.2
Intensity (a.u.)
0.125
0.175
0.225
0.275
0.325
q (Å-1)

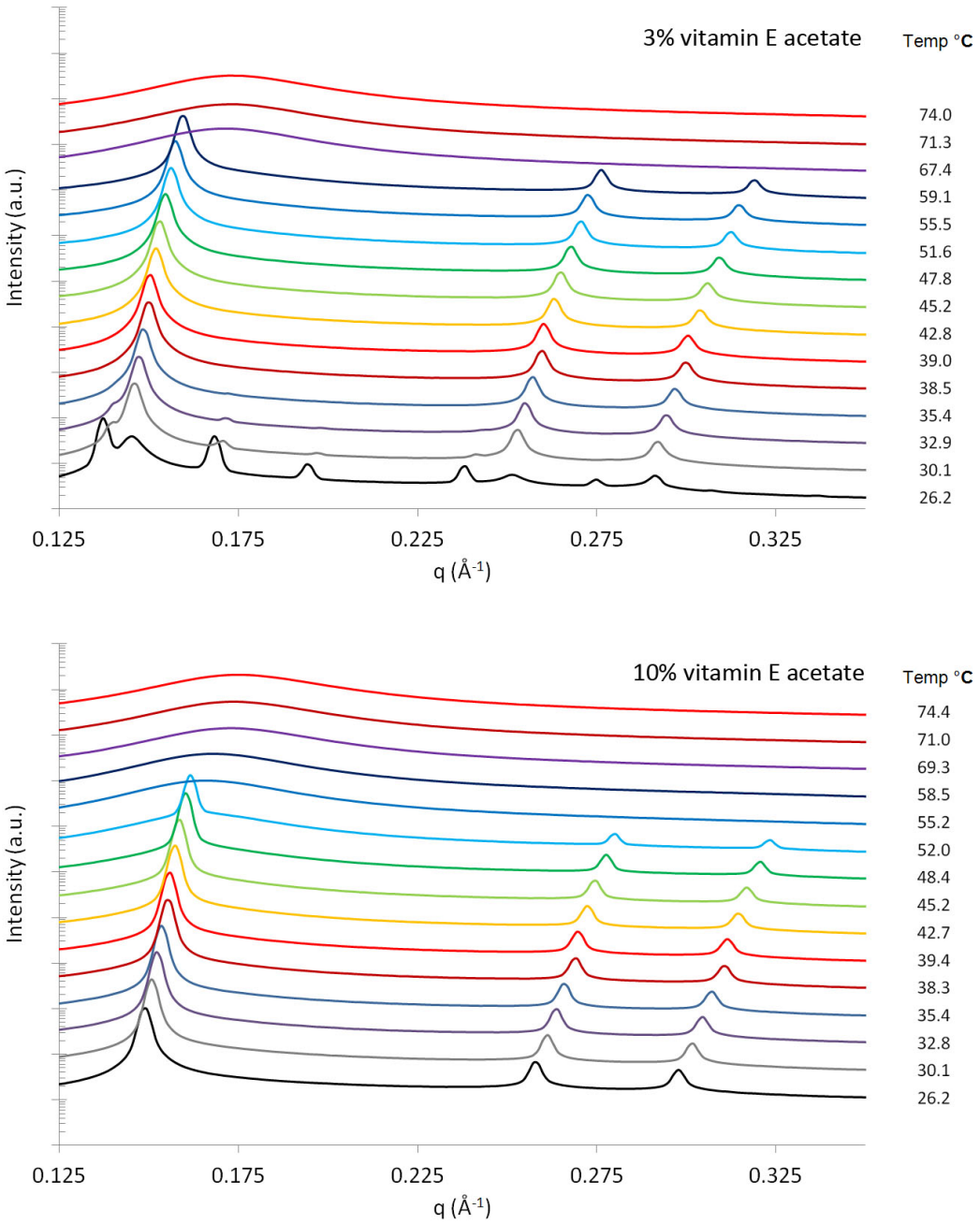


Figure S2: Waterfall plots of SAXS profiles with increasing temperature for dispersed phytantriol systems with 0, 1, 3 and 10% w/w vitamin E acetate.

REFERENCE

(1) Dong, Y. D.; Dong, A. W.; Larson, I.; Rappolt, M.; Amenitsch, H.; Hanley, T.; Boyd, B. J.: Impurities in commerical phytantriol significantly alter its lyotropic liquid-crystalline phase behaviour *Langmuir* 2008, *24*, 6998-7003.