Electronic Supporting Information

Effect of Cholesterol and Ibuprofen on DMPC-*β*-Aescin Bicelles: A Temperature-Dependent Wide-Angle X-ray Scattering Study.

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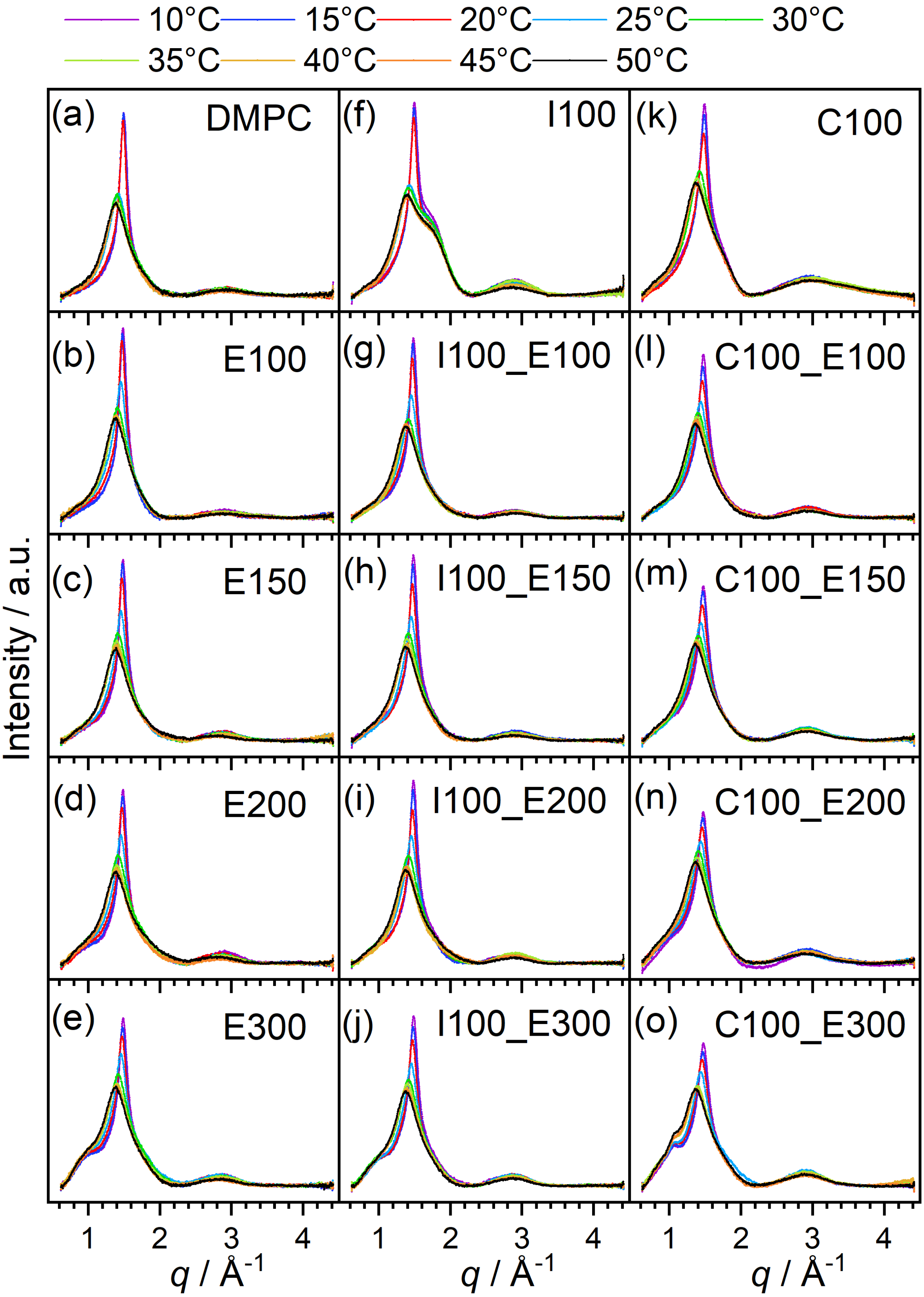


Figure S1: Full WAXS Spectra.

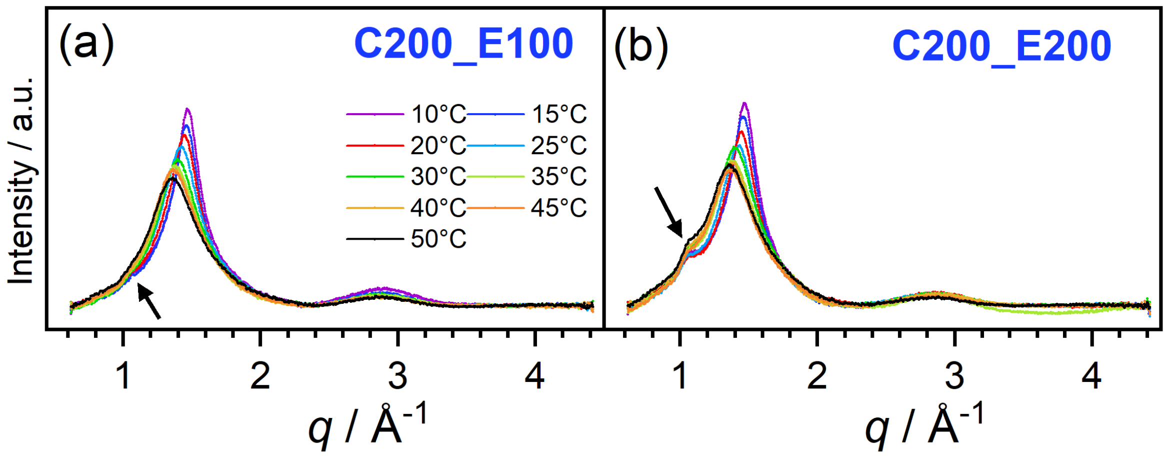
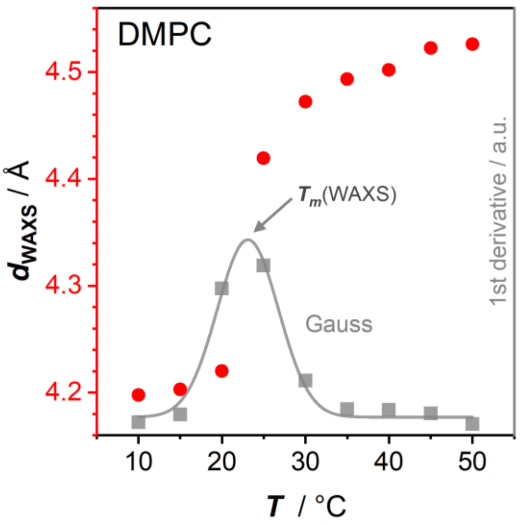
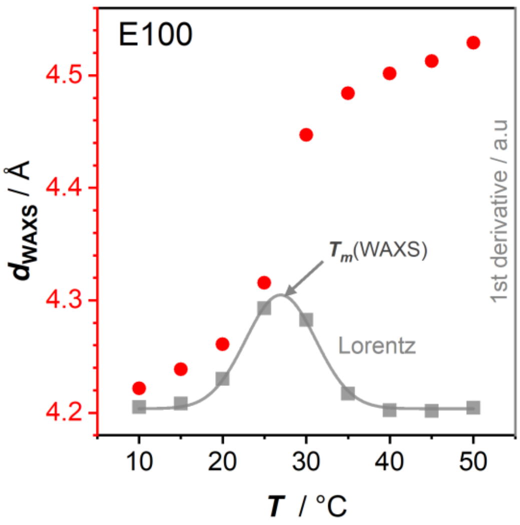


Figure S2: Full WAXS Spectra with 20 mol% cholesterol and 10 and 20mol% *β*-aescin.

Determination of T_m(WAXS) from d_{WAXS}



a)



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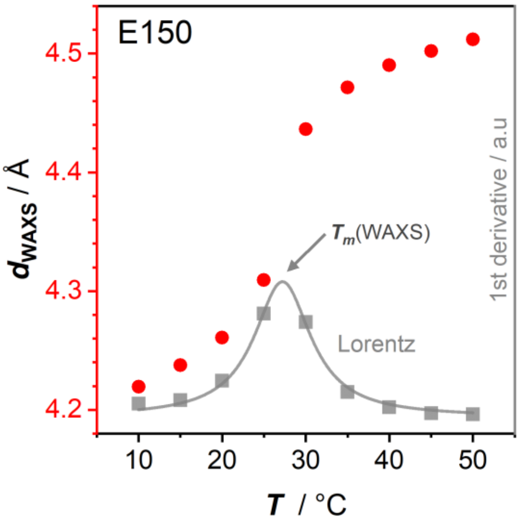
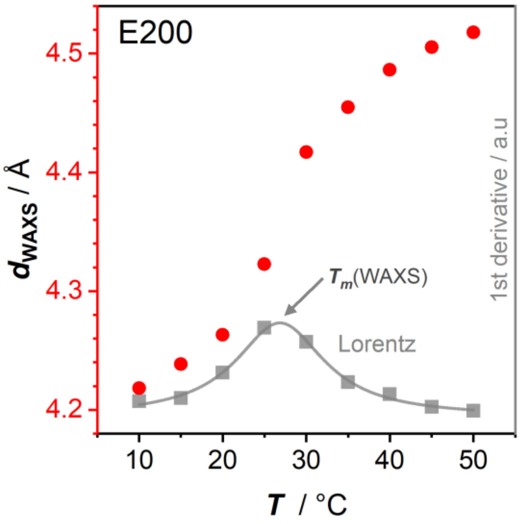


c)



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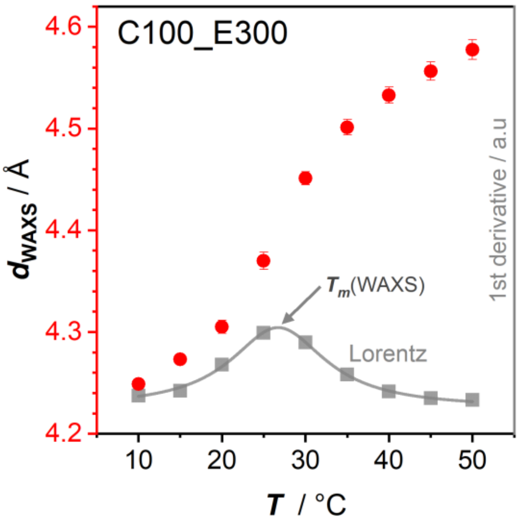
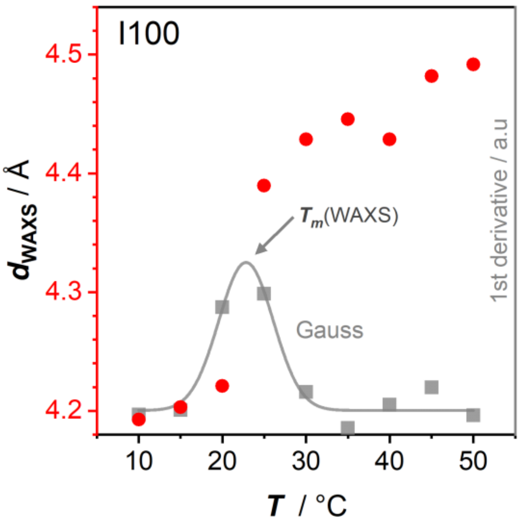
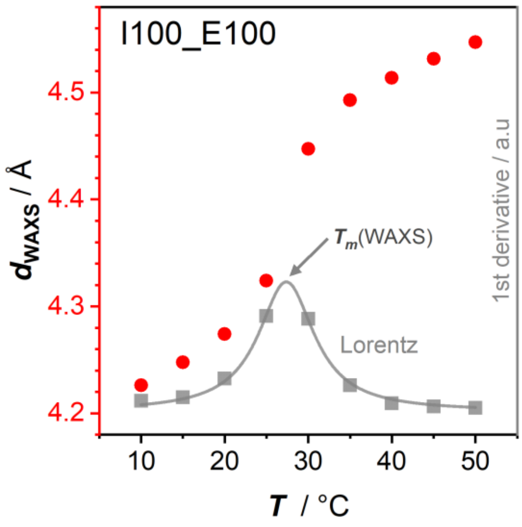


e)



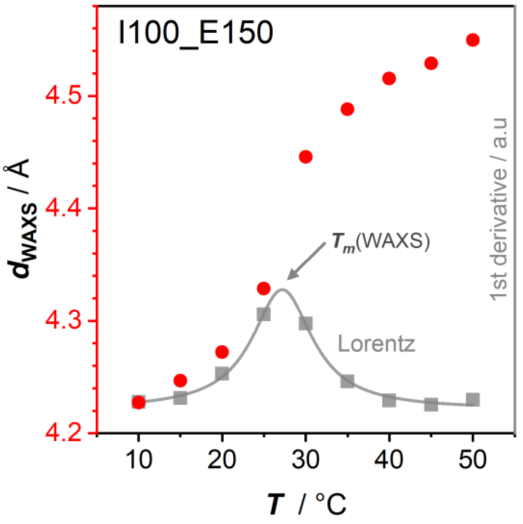
I100
d_{WAXS} / Å
4.2
4.3
4.4
4.5
T_m(WAXS)
Gauss
1st derivative / a.u
10
20
30
40
50
T / °C

f)



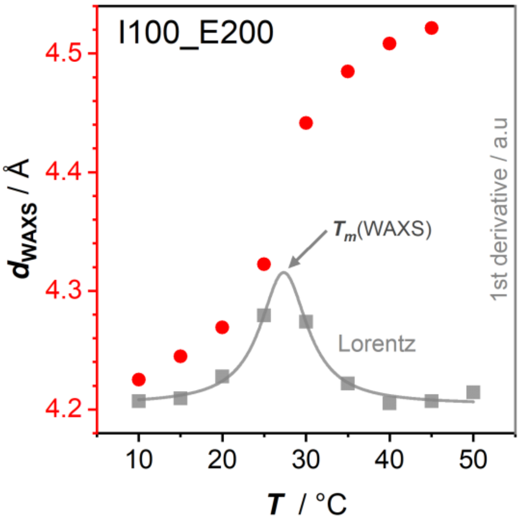
I100_E100
d_{WAXS} / Å
4.2
4.3
4.4
4.5
T_m(WAXS)
Lorentz
1st derivative / a.u
10
20
30
40
50
T / °C

g)



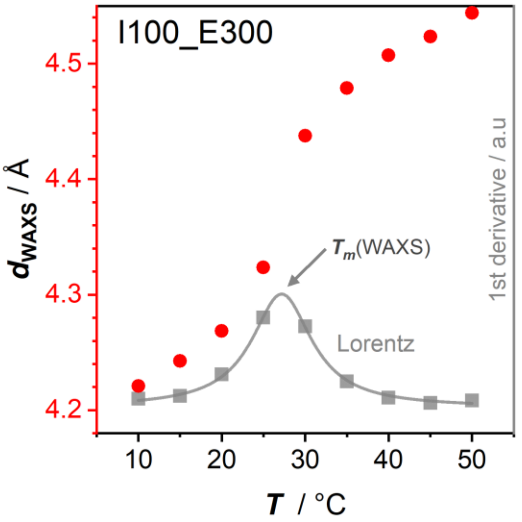
I100_E150
d_{WAXS} / Å
4.2
4.3
4.4
4.5
T_m(WAXS)
Lorentz
1st derivative / a.u
10
20
30
40
50
T / °C

h)



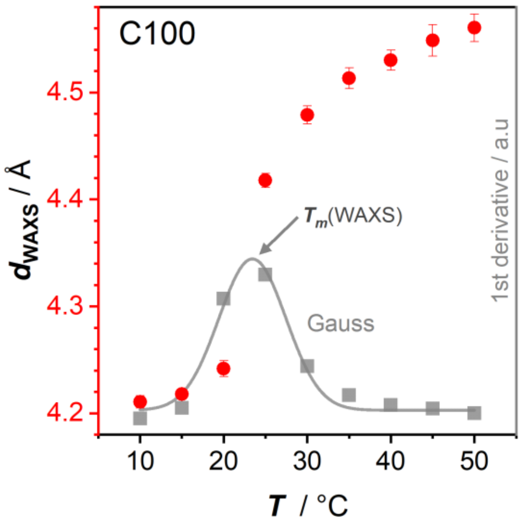
I100_E200
d_{WAXS} / Å
4.2
4.3
4.4
4.5
T_m(WAXS)
Lorentz
1st derivative / a.u
10
20
30
40
50
T / °C

i)

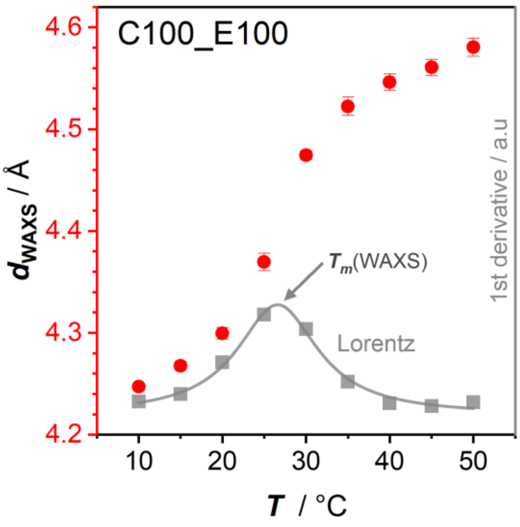


I100_E300
d_{WAXS} / Å
4.2
4.3
4.4
4.5
T_m(WAXS)
Lorentz
1st derivative / a.u
10
20
30
40
50
T / °C

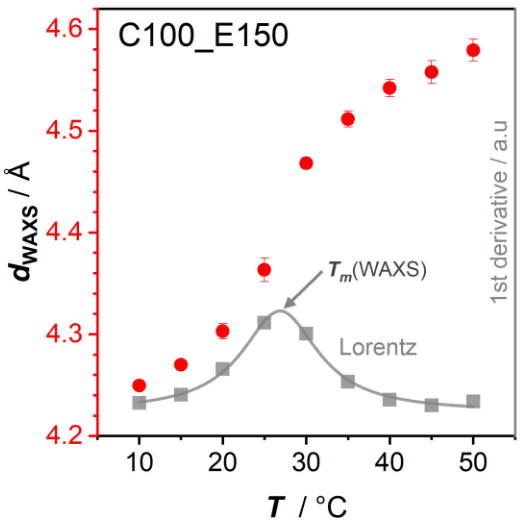
j)


C100
d_{WAXS} / Å
1st derivative / a.u
T_m(WAXS)
Gauss
4.2
4.3
4.4
4.5
10
20
30
40
50
T / °C

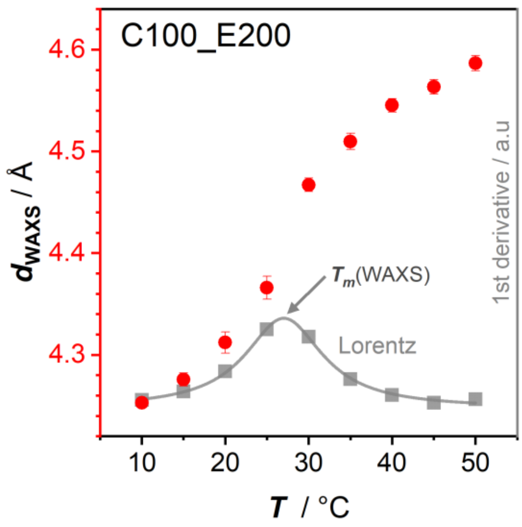
k)


C100_E100
d_{WAXS} / Å
1st derivative / a.u
T_m(WAXS)
Lorentz
4.2
4.3
4.4
4.5
4.6
10
20
30
40
50
T / °C

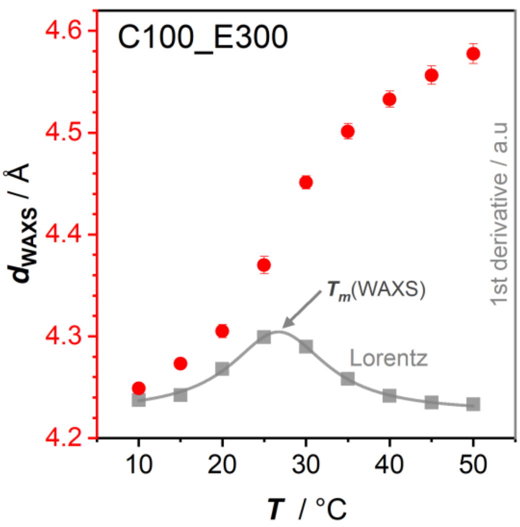
l)


C100_E150
d_{WAXS} / Å
1st derivative / a.u
T_m(WAXS)
Lorentz
4.2
4.3
4.4
4.5
4.6
10
20
30
40
50
T / °C

m)


C100_E200
d_{WAXS} / Å
1st derivative / a.u
T_m(WAXS)
Lorentz
4.3
4.4
4.5
4.6
10
20
30
40
50
T / °C

n)


C100_E300
d_{WAXS} / Å
1st derivative / a.u
T_m(WAXS)
Lorentz
4.2
4.3
4.4
4.5
4.6
10
20
30
40
50
T / °C

o)

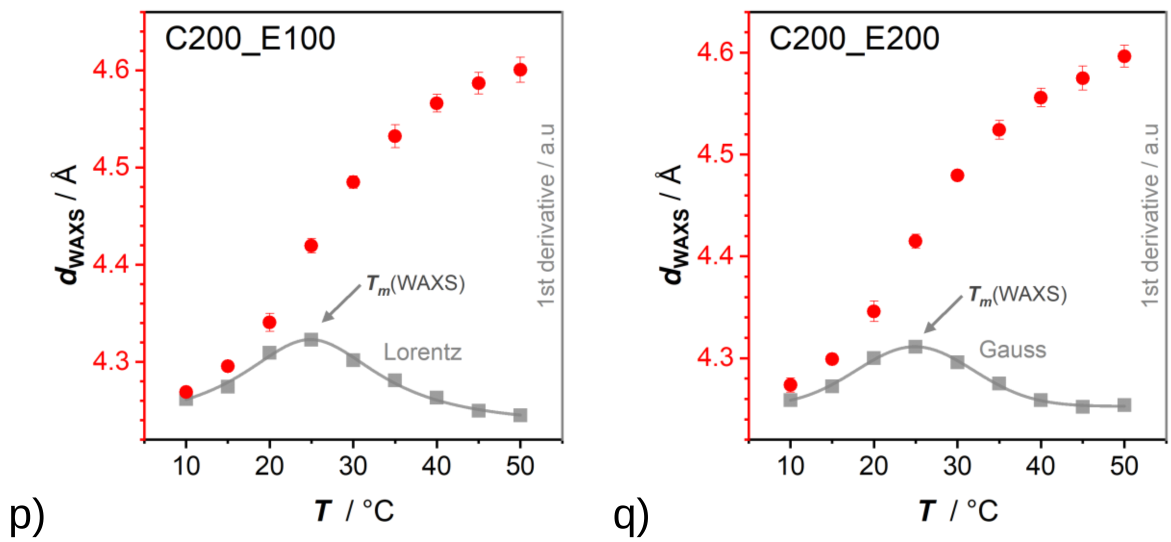


Figure S3: Determination of T_m(WAXS) from d_{WAXS}. For this, the 1st order derivative was determined from d_{WAXS} values (gray symbols) and fitted with a peak function (Gauss or Lorentz) in order to determine the peak maximum. This value was eventually compared to y(0)-value from the 2nd order derivative. In this approach, we assume that T_m corresponds to the inflection point of the temperature-driven distance increase between acyl chains following approximately a sigmoidal shape.

Table S1: Summary of full width half maximum (FWHM) ***w(T)*** values of peak fits presented in Figure 7.

***x*(aescin)** mol%	**w(T) Aescin**	**w(T) I100**	**w(T) C100**	**w(T) C200**
0	7.3±0.6	6.5±1.5	8.0±0.8	
10	9.9±0.4	8.1±0.9	11.8±1.4	20.3±2.0
15	8.3±1.2	8.8±1.0	11.2±1.1	
20	13.0±1.7	6.8±1.9	11.3±0.9	14.0±0.5
30	10.6±0.9	8.8±0.8	13.9±0.9	