Electronic Supplementary Information for:

**Edible Supramolecular Chiral Nanostructures by Self-Assembly of an Amphiphilic Phytosterol Conjugate**

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**Chart SI-1.** Chemical structure and numbering of the hydrogen containing carbons of the β-sitosterolin tetraacetate.

**Chart SI-1.** Chemical structure and numbering of the hydrogen containing carbons of the β-sitosterolin.

**Figure SI-1.** a) β-sitosterolin starting solution in DMSO, b) aggregation after adding water to the solution, and c) aggregation after adding 1PrOH to the solution (a).
Figure SI-2. SAXS scattering curves and their corresponding fits showing the presence of the peak at $q = 1.40$ nm$^{-1}$ and the correlation length for the dispersions of a) 1 w/w% β-sitosterolin in pure $^3$PrOH, b) 1 w/w% β-sitosterolin in pure water, c) 1 w/w% in $^3$PrOH/DMSO (9:1), d) 1 w/w% in water/DMSO (9:1), e) 0.1 w/w% in $^3$PrOH/DMSO (9:1), and f) 0.1 w/w% in water/DMSO (9:1).
Figure SI-3. SAXS scattering curves and their corresponding fitting curves and parameters for the dispersions of a) 1 w/w% β-sitosterolin in pure iPrOH, b) 1 w/w% β-sitosterolin in pure water, c) 1 w/w% in iPrOH/DMSO (9:1), d) 1 w/w% in water/DMSO (9:1), e) 0.1 w/w% in iPrOH/DMSO (9:1), and f) 0.1 w/w% in water/DMSO (9:1). Note: $\rho$(iPrOH) = 2.694·10^{-4} nm$^{-2}$, $\rho$(H$_2$O) = 9.510·10^{-4} nm$^{-2}$, $\rho$(iPrOH/DMSO (9:1)) = 2.664·10^{-4} nm$^{-2}$, $\rho$(H$_2$O/DMSO (9:1)) = 9.315·10^{-4} nm$^{-2}$, $\rho$(β-sitosterol) = 3.483·10^{-4} nm$^{-2}$, $\rho$(D-glucose) = 3.521·10^{-4} nm$^{-2}$, $\rho$(β-sitosterolin) = 3.391·10^{-4} nm$^{-2}$. 

a)  
b)  
c)  
d)  
e)  
f)  

Radius = 30.1 Å, Polydispersity = 0.25, Fractal dimension = 3.81

Radius = 26.7 Å, Polydispersity = 0.26, Fractal dimension = 3.54

Radius = 20.0 Å, Polydispersity = 0.48, Fractal dimension = 2.90

Porod exponent = 2.06

Porod exponent = 2.08

Porod exponent = 2.01
Figure SI-4. 3D AFM images for the platelet-like structures of 1 wt-% β-sitosterol in H$_2$O/DMSO (9:1).