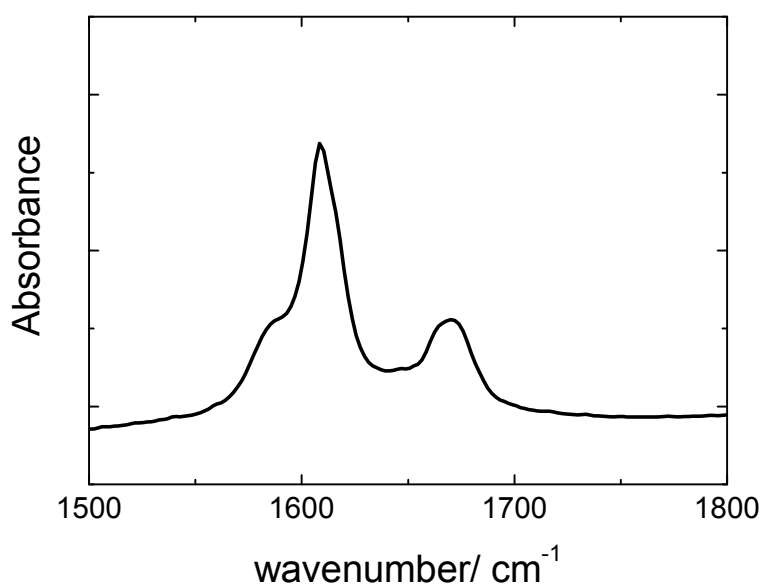


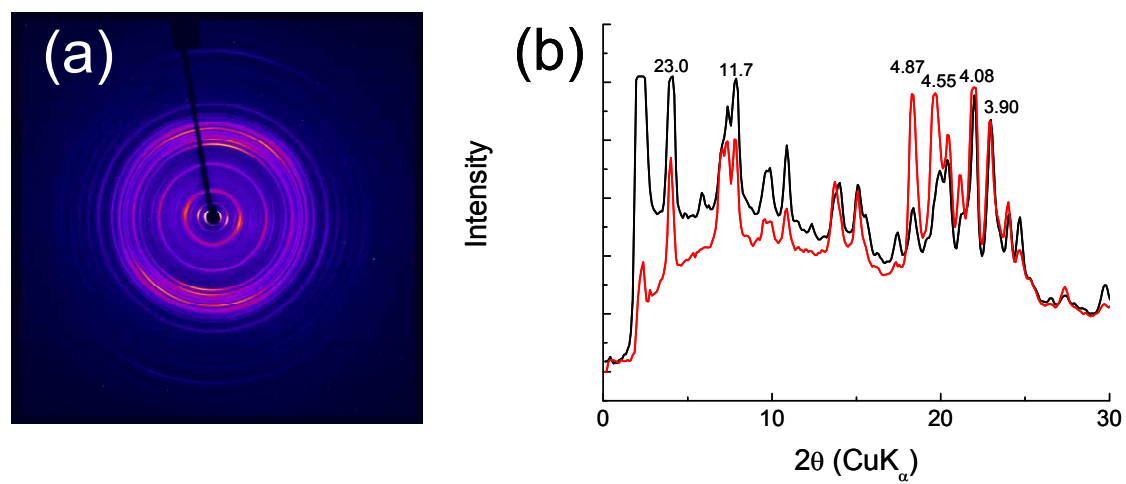
Supporting Information

Self-Assembly of a Peptide Amphiphile: Transition from Nanotape Fibrils to Micelles

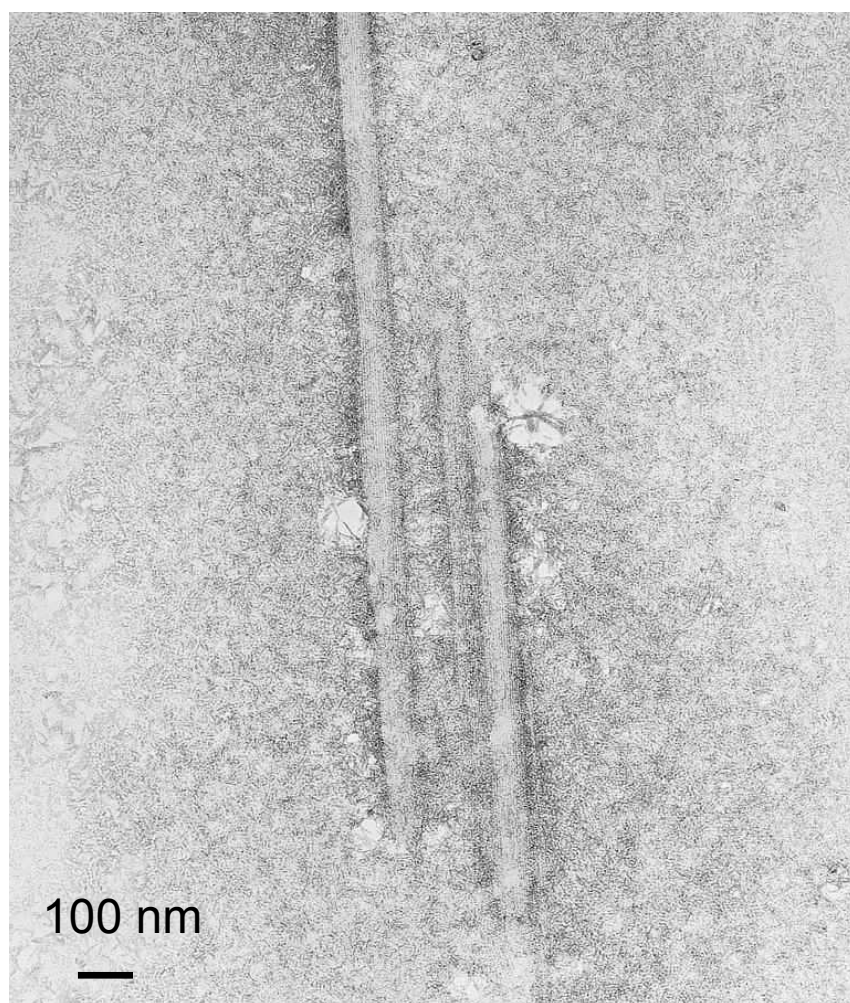
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SI Fig.1. FTIR spectrum from a 1 wt% solution of C₁₆-KTTKS at room temperature.



SI Fig.2. (a) XRD pattern and (b) Corresponding equatorial (black) and meridional (red) intensity profiles. The primary peak positions (in $\text{\AA}$) are indicated.



SI Fig.3. TEM image obtained from a 1 wt% sample of C₁₆-KTTKS.

Details of SAXS model

The SAXS data was modelled using the software SASfit,¹ model “spherical shell ii” with Gaussian polydispersity in radius. This implementation of a spherical shell is parametrised with an outer radius R and an inner radius νR . The scattering contrast relative to the matrix of the core is $\mu\Delta\eta$ and the one of the shell $\Delta\eta$:

$$I(q) = (K(q, R, \Delta\eta) - K(q, \nu R, \Delta\eta(1 - \mu)))^2,$$

with

$$K(q, R, \Delta\eta) = \frac{4}{3}\pi R^3 \Delta\eta \frac{\sin qR - qR \cos qR}{(qR)^3}.$$

The fitted parameters were Gaussian height $N = 1$, width $\sigma = 0.24$, $R = 2.79$, $\nu = 0.61$, $\mu = -0.81$, $\Delta\eta = 0.053$, constant background BG=0.05

References

¹ <http://kur.web.psi.ch/sans1/SANSSoft/sasfit.html>, in 2013.