



¹ Supplementary material for:

Modifying thermal switchability of liquid crystalline nanoparticles by alkyl ligands variation.

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10Figure S1. Structural investigation of Ag@C12 and Au@C12 nanoparticles. (a) SAXS diffractogram of11Ag@C12 suspension in hexane. (b) Comparison of modelled (red line) and experimental (circles) 1D SAXS12profiles for Ag@C12 material; for modelling the spherical nanoobjects were assumed with diameter 5.1±0.3 nm.13(c) SAXS diffractogram of Au@C12 suspension in hexane. (d) Comparison of modelled (red line) and14experimental (circles) 1D SAXS profiles for Au@C12 material; for modelling the spherical nanoobjects were15assumed with diameter 3.6±0.4 nm.



Figure S2. Optical investigation of Ag@C12 and Au@C12 nanoparticles. (a) Absorption spectra of Ag@C12
 suspension in hexane. (b) Absorption spectra of Au@C12 suspension in hexane.

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Figure S3. SAXRD diffractogram of a quasi-monodomain Ag@L1/C12 sample prepared by shearing.

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Figure S4. SAXRD diffractogram of a quasi-monodomain Au@L1/C16 sample prepared by shearing;
 measurements at 70 deg. C.



Figure S5. Signal intensity changes along a circle of radius corresponding to (020) signal position in
 Au@L1/C16 diffractogram shown in Figure S3.



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Figure S6. Signal intensity changes along a circle of radius corresponding to (110) signal position in
 Au@L1/C16 diffractogram shown in Figure S3.

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Figure S7. Signal intensity changes along a circle of radius corresponding to (110) signal position in
 Au@L1/CF diffractogram shown in Figure 6a in the main text.

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Figure S8. SAXRD diffractogram of a quasi-monodomain Au@L1/CF sample prepared by shearing; measurements at 80 deg. C.



Figure S9. SAXRD pattern taken for aligned Ag@L1/C110H sample. Shearing was performed along (10) 46 direction of the structure.