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Supporting Information

Unconventionally shaped chromonic liquid crystals formed by novel silver(I) complexes

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Figure S1. TGA trace of powder complex **1** with its derivative in dotted red (experimental mass loss 3.01% corresponds to one water molecule calcd. 2.92%).

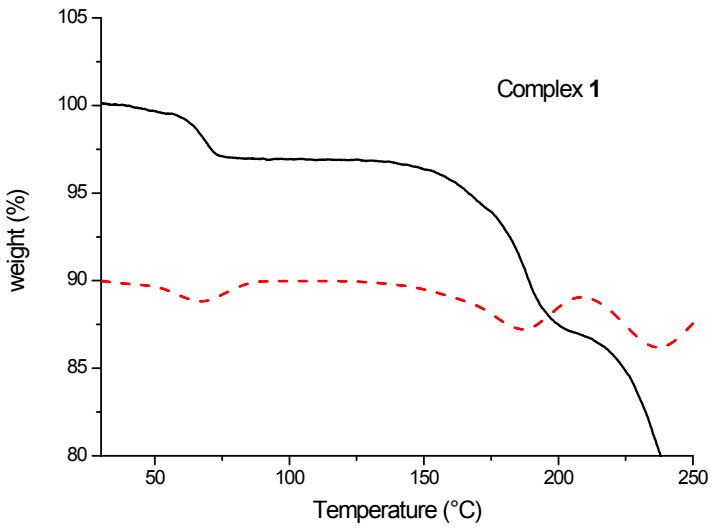


Figure S2. TGA trace of powder complex **2** with its derivative in dotted red (experimental mass loss 2.74% corresponds to one water molecule calcd. 2.85%).

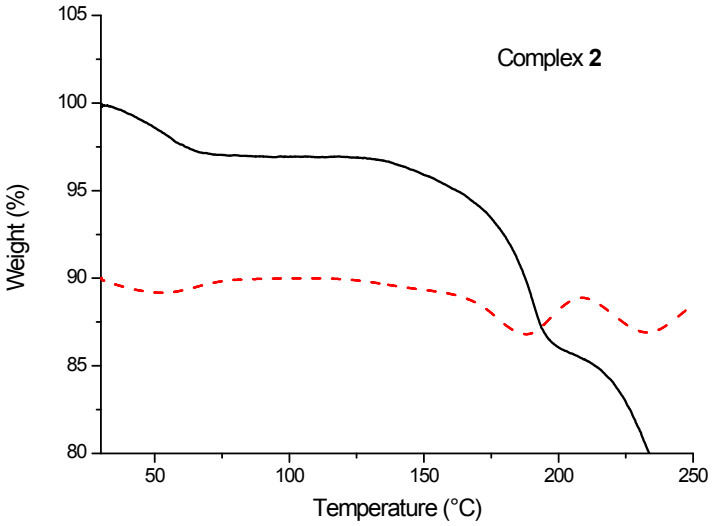


Figure S3. TGA trace of powder complex **3** with its derivative in dotted red (experimental mass loss 2.86% corresponds to one water molecule calcd. 2.68%).

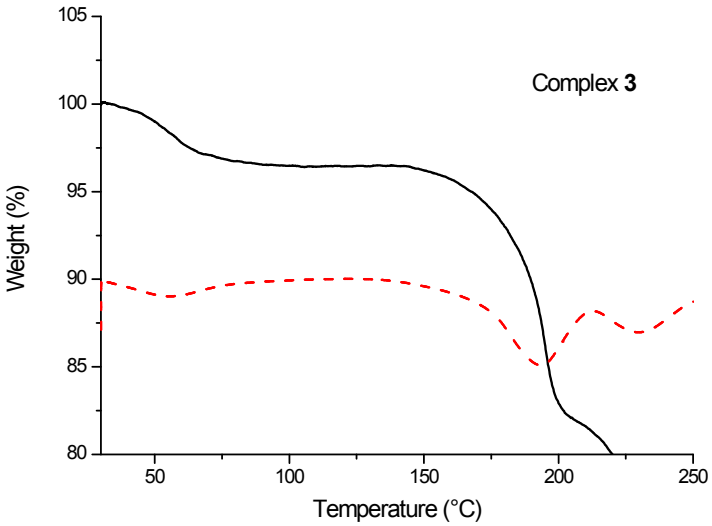


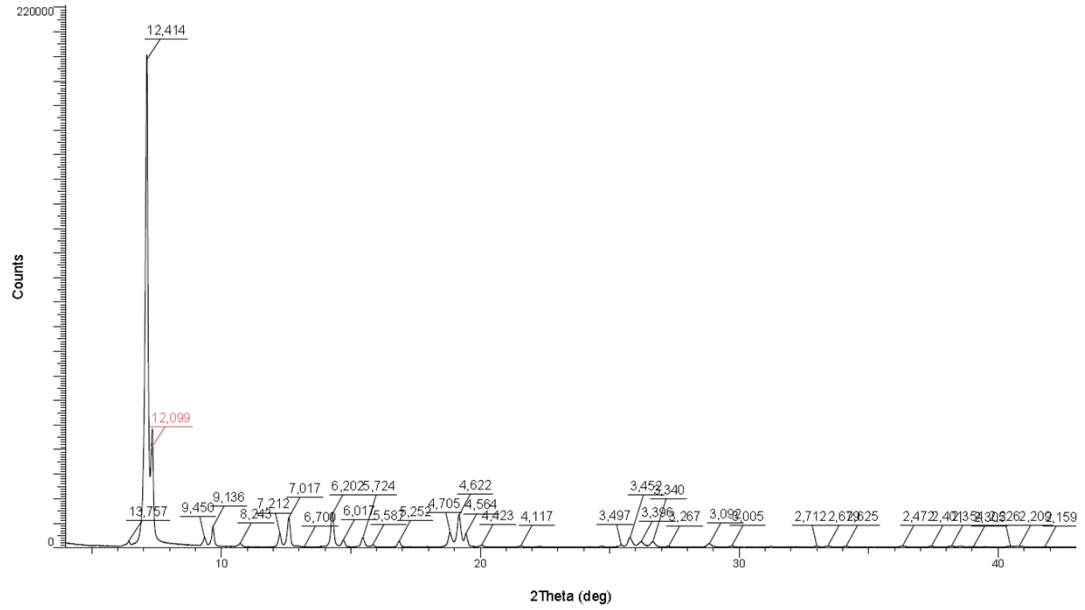
Table S1 Transition Temperature and related phases for complex 1

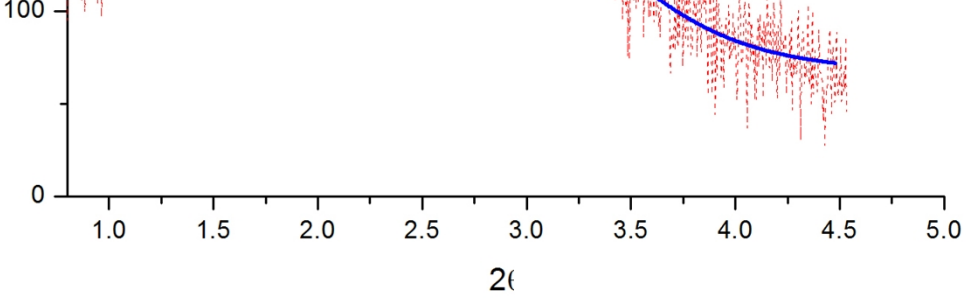
C(%wt)	15	20	30	40	50	60
Phase	N	N	N	N	N/H	H
T (°C)	30	32	47	87	110	120

Table S2 Transition Temperature and related phases for complex 2

C(%wt)	20	30	40	50
Phase	N	N	N	N
T (°C)	34	48	73	90

Figure S4. PXRD pattern of the crystalline powder of complex **1**, recorded at room temperature.





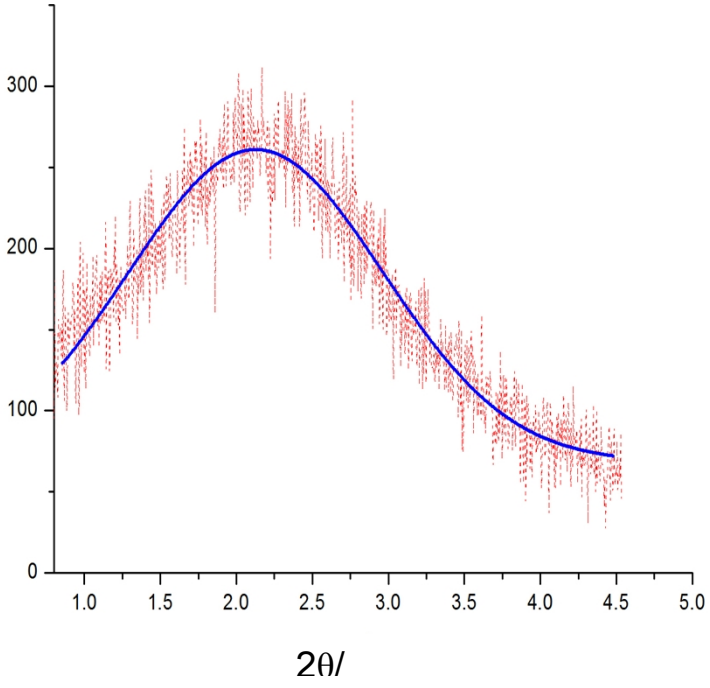


Figure S6 Schematic representation of the suggested LC director configuration of the stripes reported in Ref. 19. Nematic LCLC is sandwiched between glasses coated with the alignment layer. A black straight arrow shows a direction perpendicular to stripes. Red rods represent LC directors that have homeotropic anchoring at top and bottom alignment layers. Cones and rotating arrows highlight the regions with twists of different handedness.

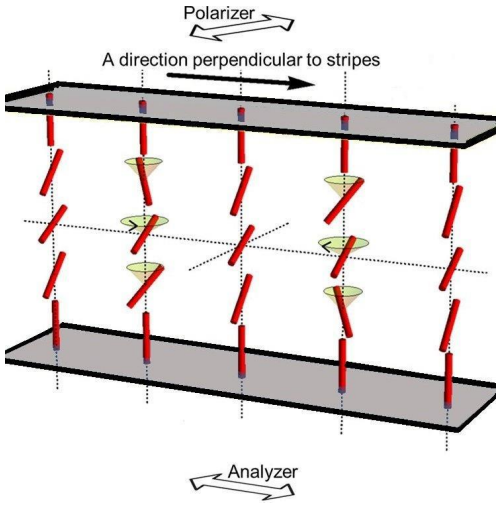


Figure S7. POM images of the aligned nematic phases exhibited by complex **1** confined between Cytop treated surfaces. Pictures (a,b,c) were acquired using a 20x objective. Inset in (a) is a magnification at 100x. (d) line profile highlighting the periodicity of the stripes and the "double modulation". The mean pitch is about 14 microns.

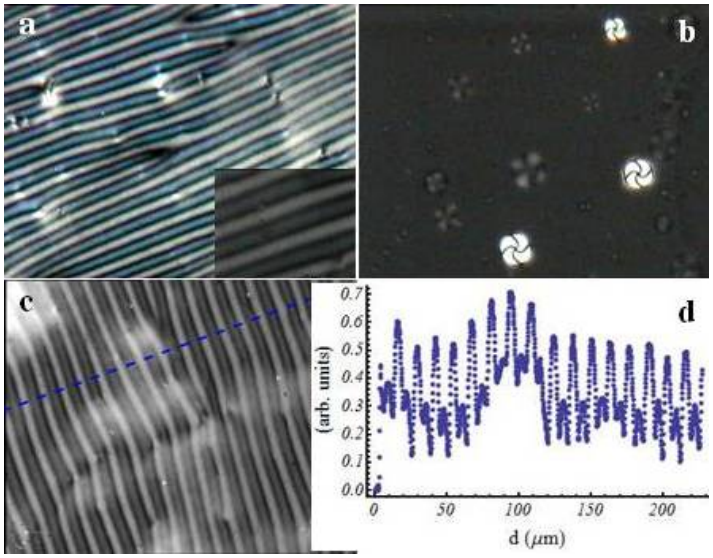


Figure S8. POM images of the aligned nematic phases exhibited by complex **2** confined between Cytop treated surfaces. Pictures were acquired using a 5x (a,b), 20x (c,e) and 100x (d) objective respectively. In (a) the initial degenerate planar alignment is visible. After about 20 minutes, a reorientation of the molecules occurs and cylinders start to rise (b)until covering the whole cell. In 3 hours the homeotropic alignment is reached and remains stable for months (e). In this case, the mean pitch is about 25 microns without the "modulation" in the middle seen for the other complex.