

Supporting information

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Self-sorting chiral organogels from a long chain carbamate of 1-benzyl-pyrrolidine-3,4-diol

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(3S,4S)-1-benzylpyrrolidine-3,4-diyl bis(dodecylcarbamate) (1):^a

Due to a misprint in the supporting information section of ref. a, the $[\alpha]_{20}^D$ value for compound **1** was reported as 25.8. The correct value is instead 28.5 and the measure of *ent*-**1** (see below) confirmed the measurements.

$$[\alpha]_{20}^D = 28.5 \text{ (c = 1, CH}_2\text{Cl}_2\text{)};$$

(3R,4R)-1-benzylpyrrolidine-3,4-diyl bis(dodecylcarbamate) *ent*-1**:**

Compound *ent*-**1** was synthesized starting from D-tartaric acid following the same procedure as described for **1**.

$[\alpha]_{20}^D = -29.0$ (c = 1, CH₂Cl₂); Elem. Anal. Calcd. for C, 72.15; H, 10.64; N, 6.82; O, 10.39 found C, 72.00; H, 10.76; N, 6.73.

Atomic Force Microscopy characterization has been carried out on samples obtained by dropping 50 µL of gel (5-10mg/mL) on a freshly cleaved mica slide (Dumico, Rotterdam, The Netherlands) and directly mounted in the spin-coater (KW 4A Chemat Technology). Spinning has been carried out by two successive steps of 20s and 40s at 2000rpm and 3000rpm respectively. The obtained samples were dried under dry nitrogen flux and then mounted to the sample holder of the microscope. The analysis has been performed with a P47-PRO instrument (NT-MDT Co. Zelenograd, Moscow, Russia). using a NSC-36 silicon tip (MikroMasch, Tallinn, Estonia) having a resonating frequency ranging from 70 to 150 of 125 kHz. Semicontact mode (Tapping mode) was used in order to avoid deformation or damaging of the examined soft samples. All the images were processed using the WSXM 4.0 Nanotec software.^b

Figures

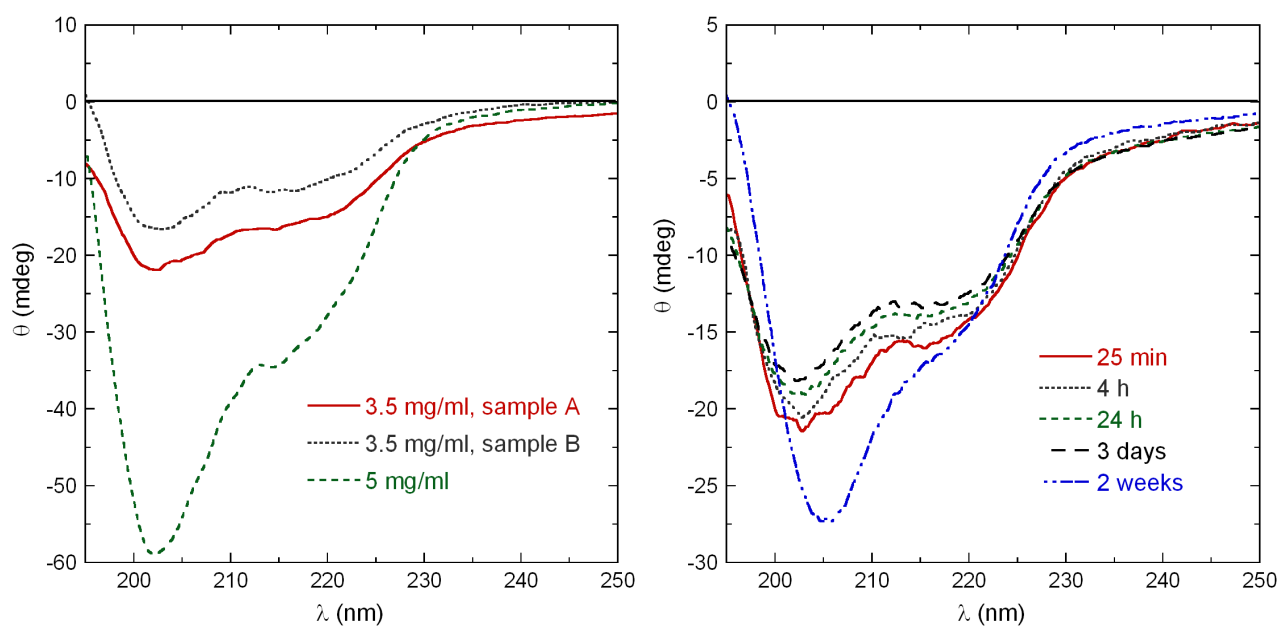
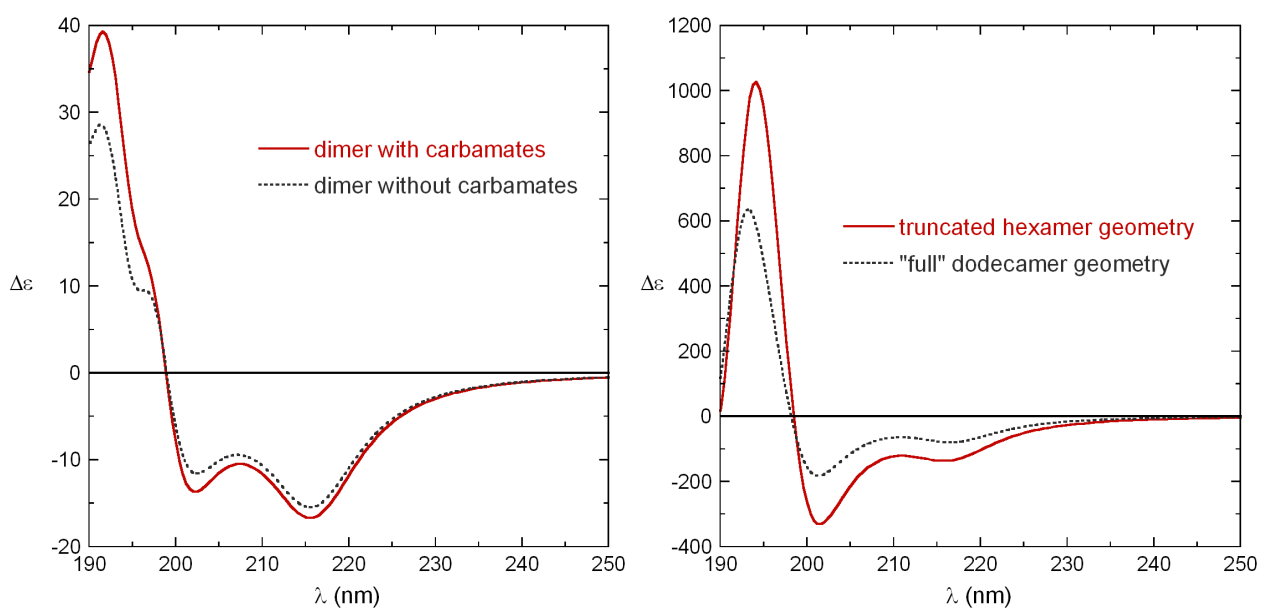
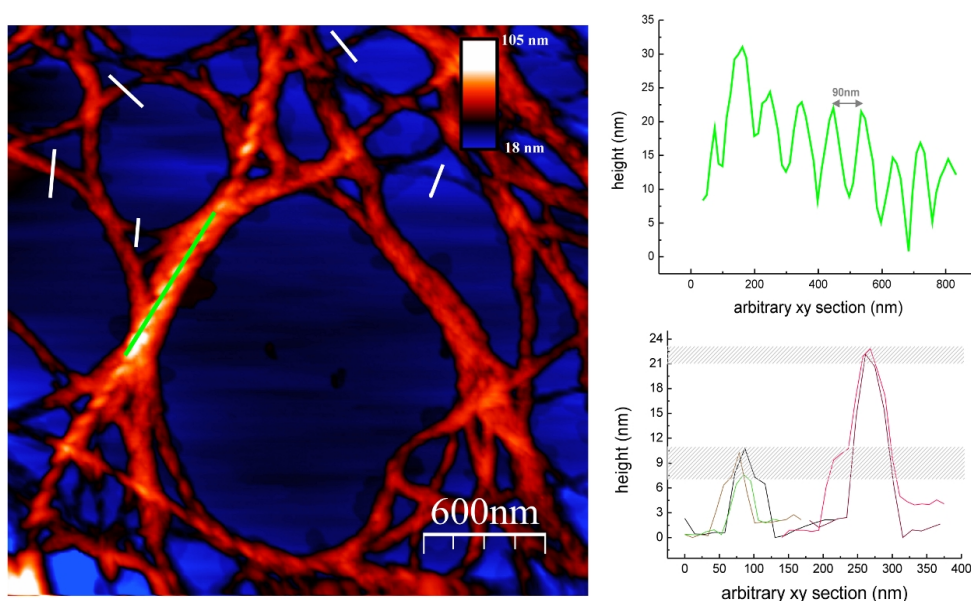


Figure S1. Left: CD spectra of different samples of gels obtained from **1** in cyclohexane. Right: CD variation of a sample of **1** 3.5 mg/ml in cyclohexane upon ageing.



Figures S2 (left) and S3 (right). De Voe-calculated CD spectra on MMFF-generated structures for oligomers of **1**. Left: calculation on truncated dimer with and without including carbamate group transitions. Right: calculations on two geometries for a truncated hexamer and a “full” (*N*-dodecyl chains) dodecamer.



Figures S3: AFM image of a 5 mg/mL gel of **1** in cyclohexane and the evaluation of the pitch and height of the fibers

References

- ^a Cicchi, S.; Ghini, G.; Lascialfari, L.; Brandi, A.; Betti, F.; Berti, D.; Ferrati, S.; Baglioni, P., *Chem. Commun.* **2007**, 1424-1426.
- ^b Horcas, I.; Fernandez, R.; J.M. Gomez-Rodriguez, J. M.; Colchero, J.; Gomez-Herrero, J.; Baro, A. M., *Rev. Sci. Instrum.* **2007**, 78, 013705.