

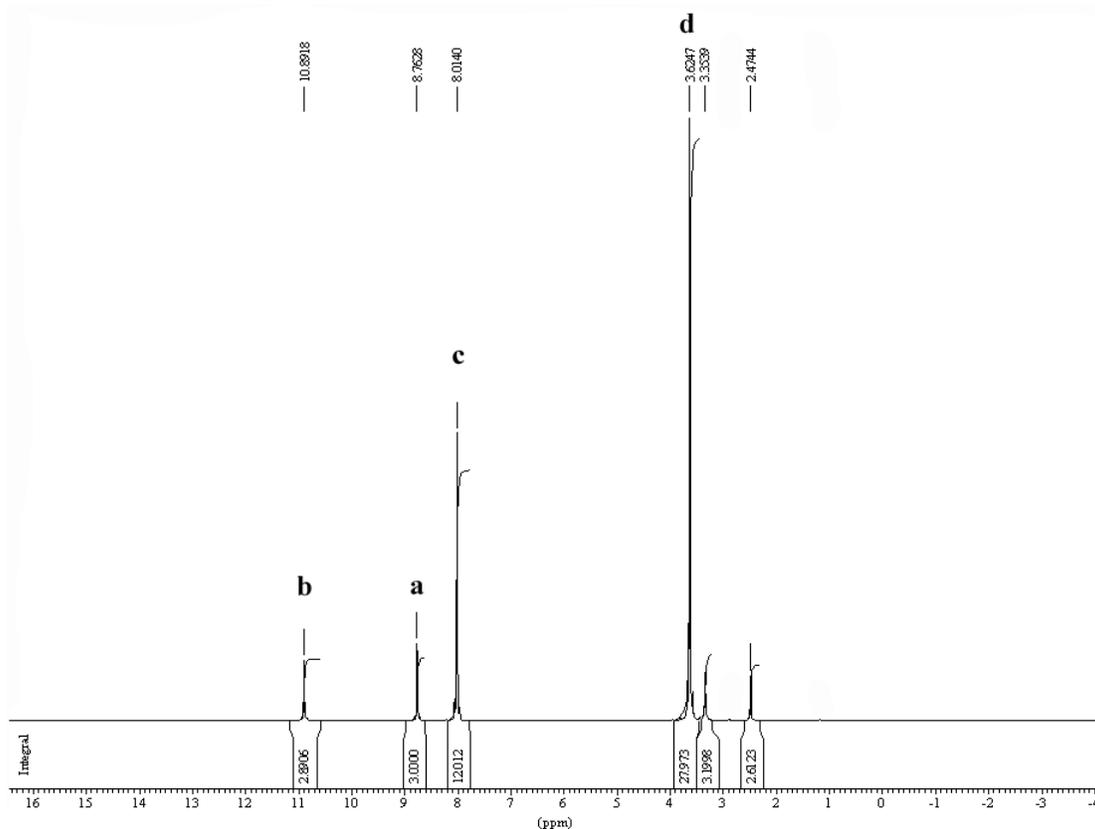
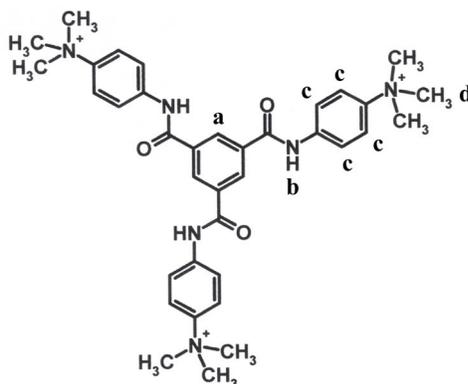
## Supplementary Information

### Combination of Ionic Self-Assembly and Hydrogen Bonding as a Tool for the Synthesis of Liquid-Crystalline Materials and Organogelators from a Simple Building Block.

Franck Camerel and Charl F.J. Faul

#### <sup>1</sup>H-NMR spectrum of compound 1 with iodine as counter-ion.

(Solvent: DMSO-*d*<sub>6</sub>, δ 2.4744 ppm containing H<sub>2</sub>O, δ 3.3539 ppm)

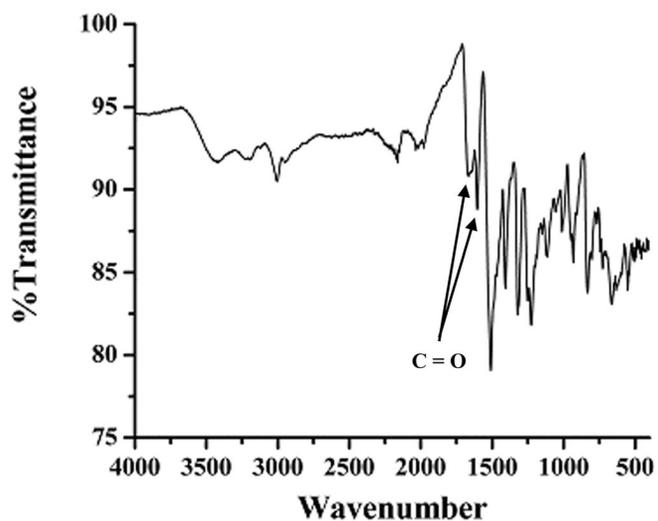


**Elemental analysis of compound 1 with iodine as counter-ion.**

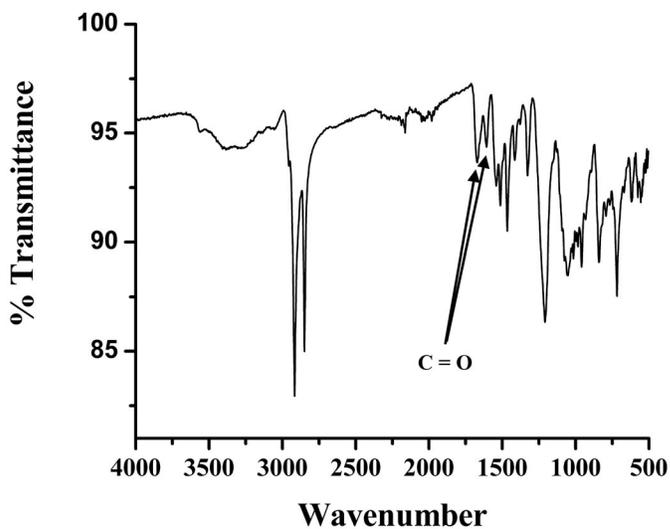
Calculated Composition: C = 43.65% , H = 4.58% , N = 8.48%

Determined Composition: C = 42.52% , H = 4.89% , N = 8.25%

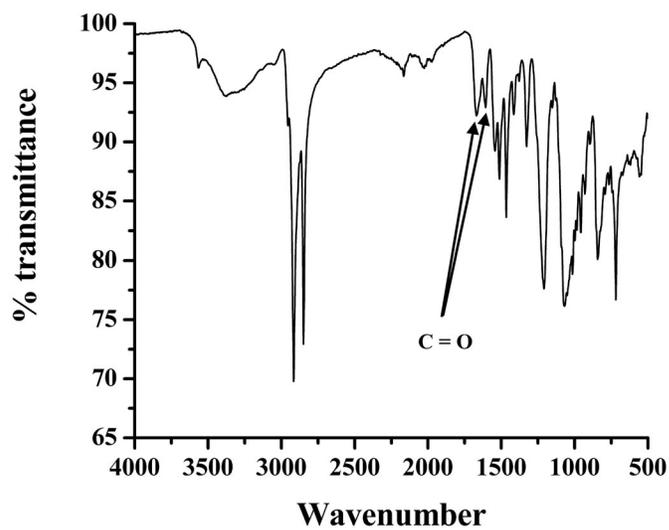
**IR spectrum of compound 1 with iodine as counter-ion (Solid-State).**



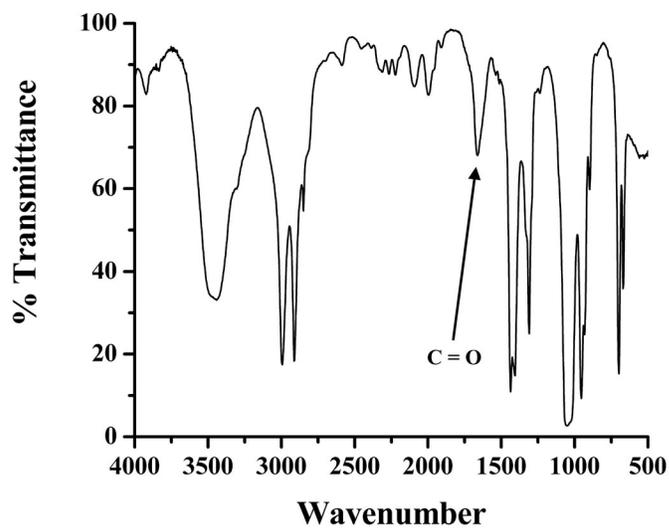
**IR spectrum of complex 1-C16S (Solid-State).**



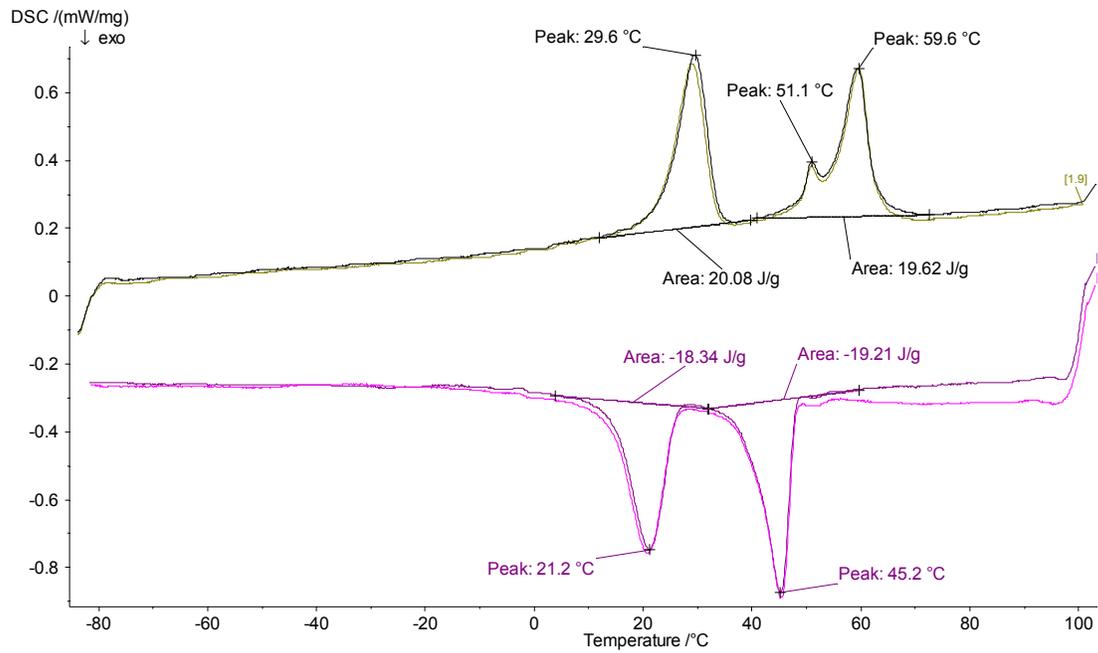
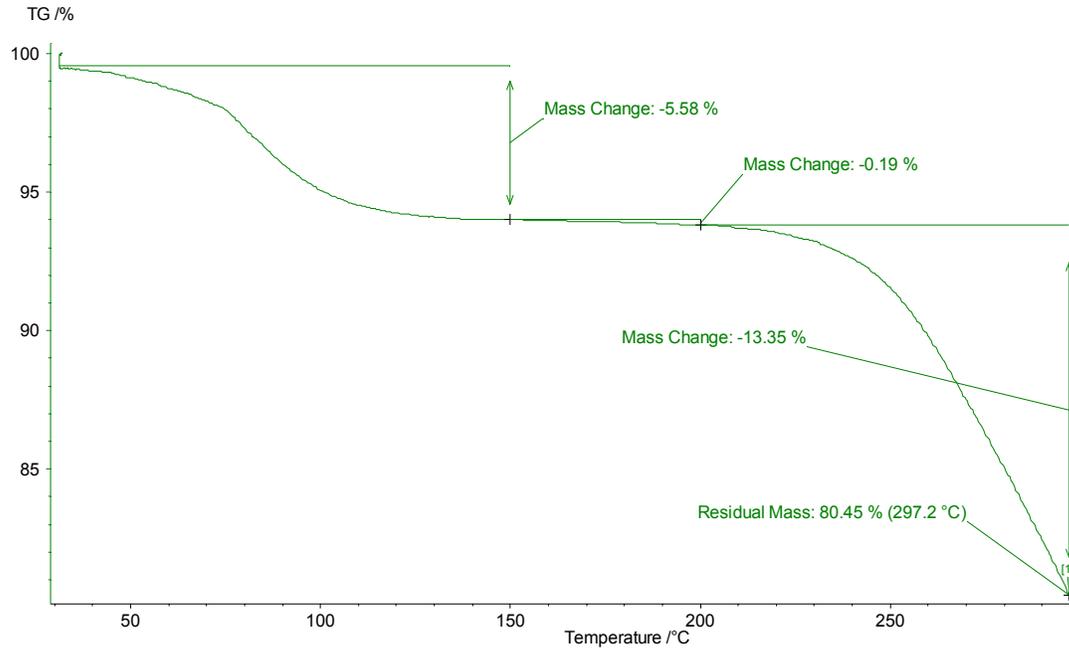
**IR spectrum of complex 1-C16DP (Solid-State).**



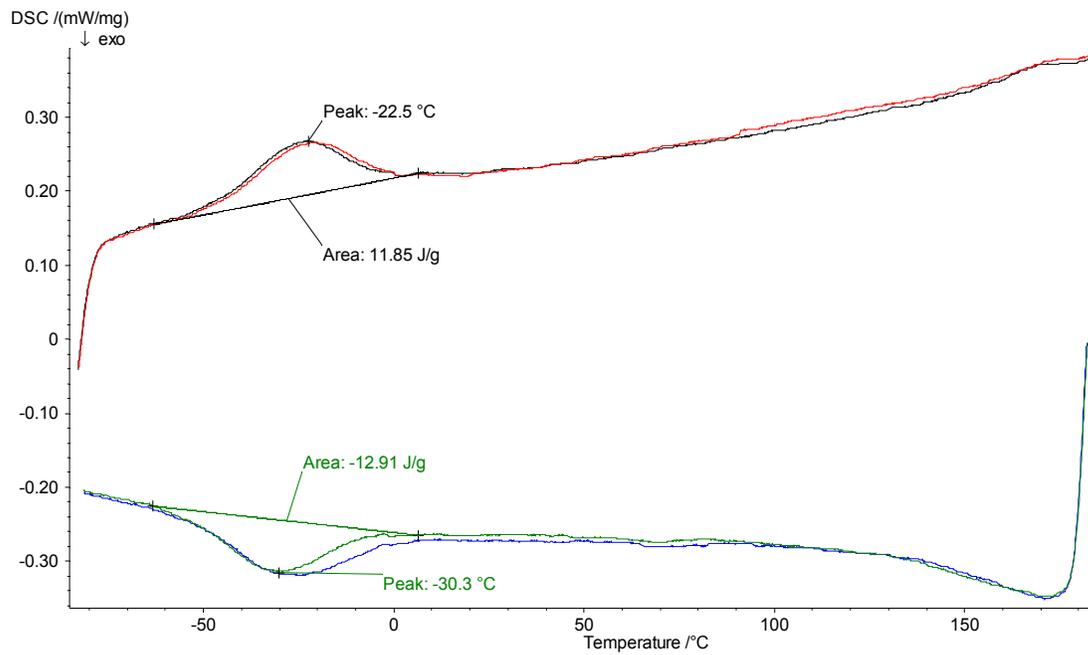
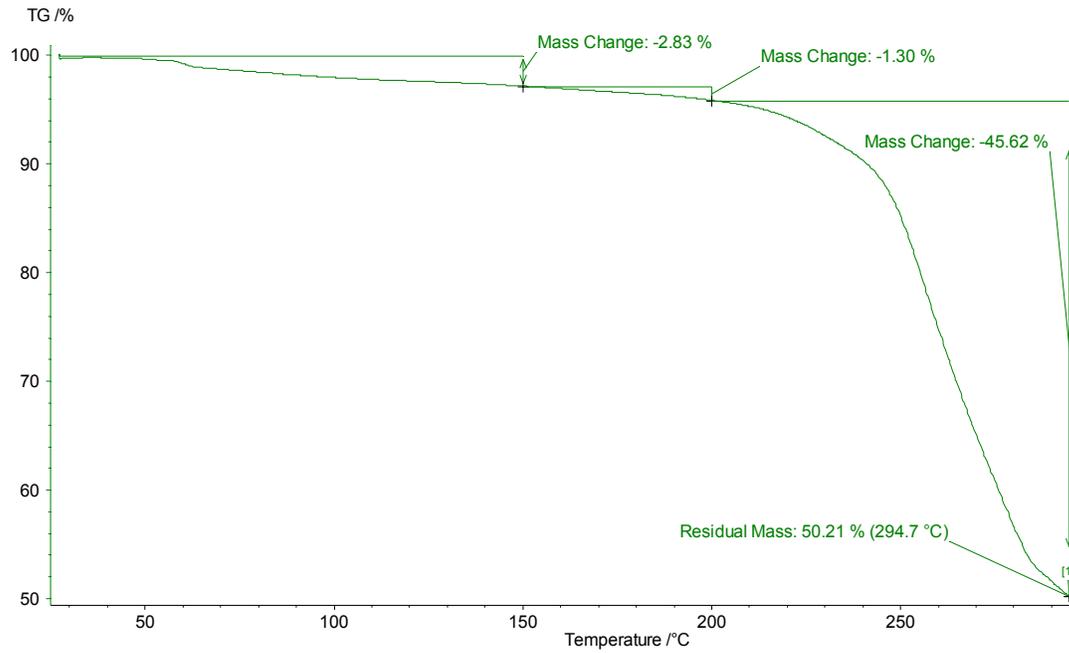
**IR spectrum of complex 1-C16DP in CCl<sub>4</sub> (10 mg/mL).**



**Thermogravimetric analysis (TGA) and differential scanning calorimetry (DSC) curves of 1-C16DP complex (casted from Chloroform).**



## TGA and DSC curves of 1-C16S complex (casted from DMSO).

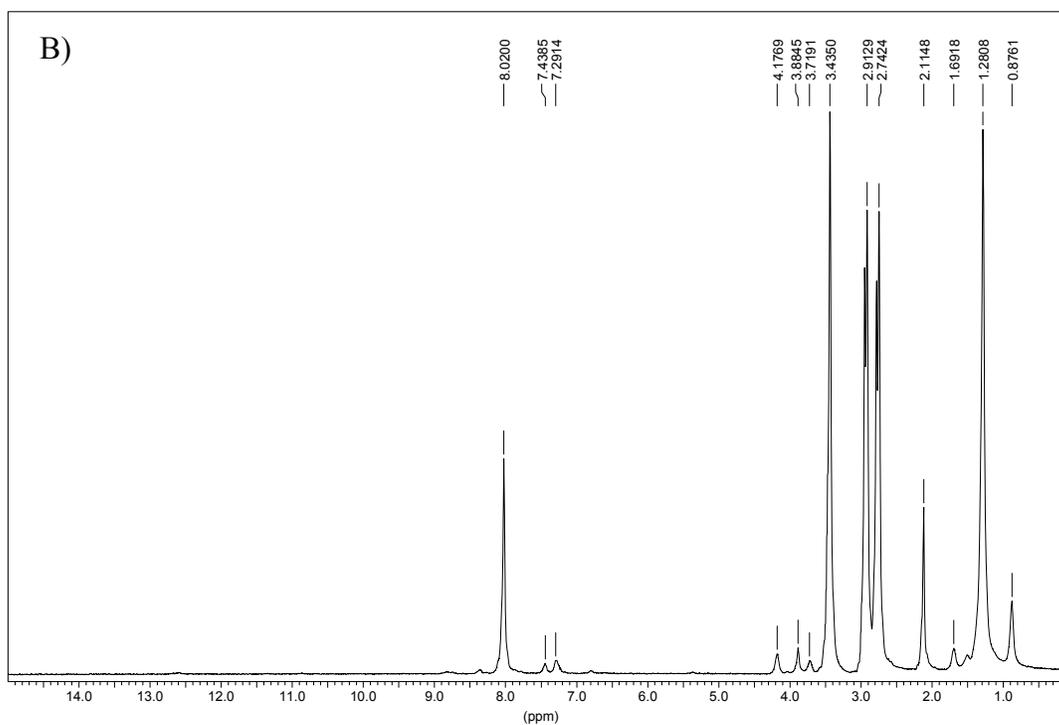
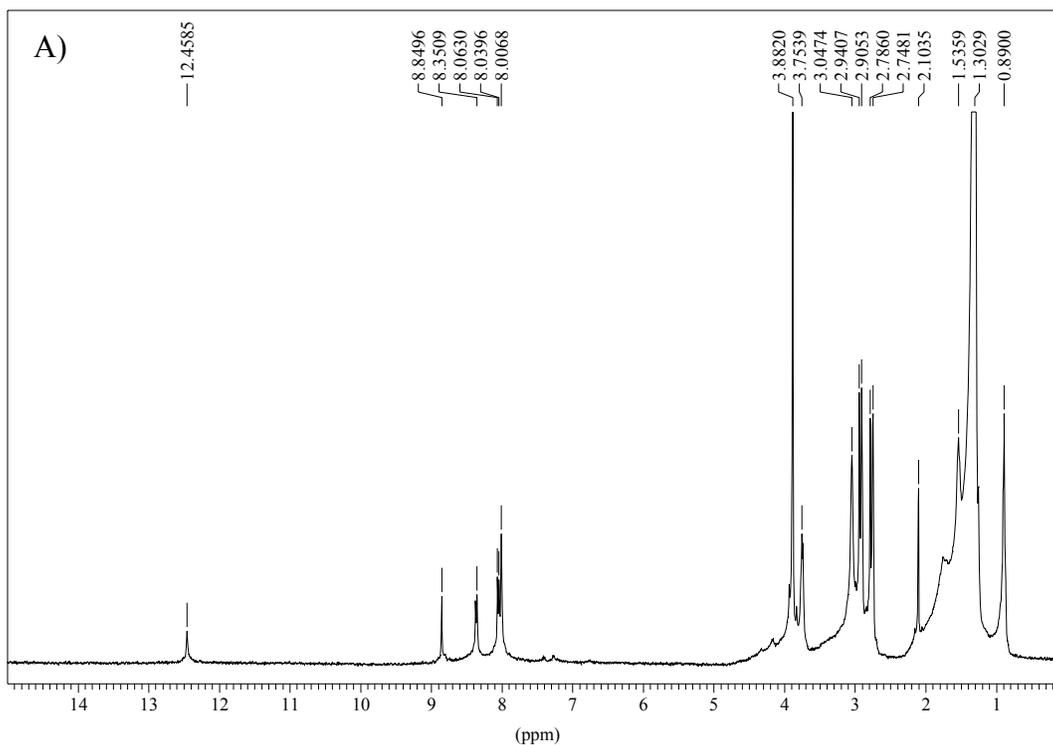


**$^1\text{H}$  NMR spectroscopy of 1-C16DP complex in deuterated DMF (10 mg/mL).**

A) NMR spectrum of the fluid solution at 100 °C

B) NMR spectrum at room temperature after formation of the gel after cooling from 100°C.

(Solvent: DMF- $d_7$ ,  $\delta$  2.74 ppm and 2.91 ppm (CH<sub>3</sub>), 8.02 ppm(H) containing H<sub>2</sub>O,  $\delta$  3.48 ppm)



**Concentration series of 1-C16DP complex in DMF.**

From left to right: 5, 6, 7, 8, 9 mg/mL. Gel formation is confirmed by observing that the sample does not flow when the test tube is inverted.

