

## SUPPORTING INFORMATION

### A Nematic [60]Fullerene supermolecule: when polyaddition leads to supramolecular self-organization at room temperature

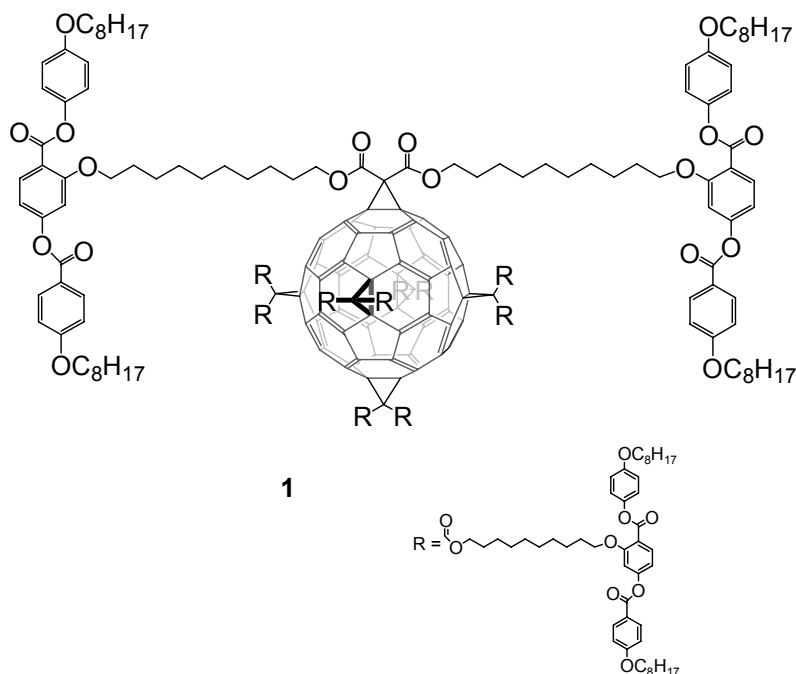
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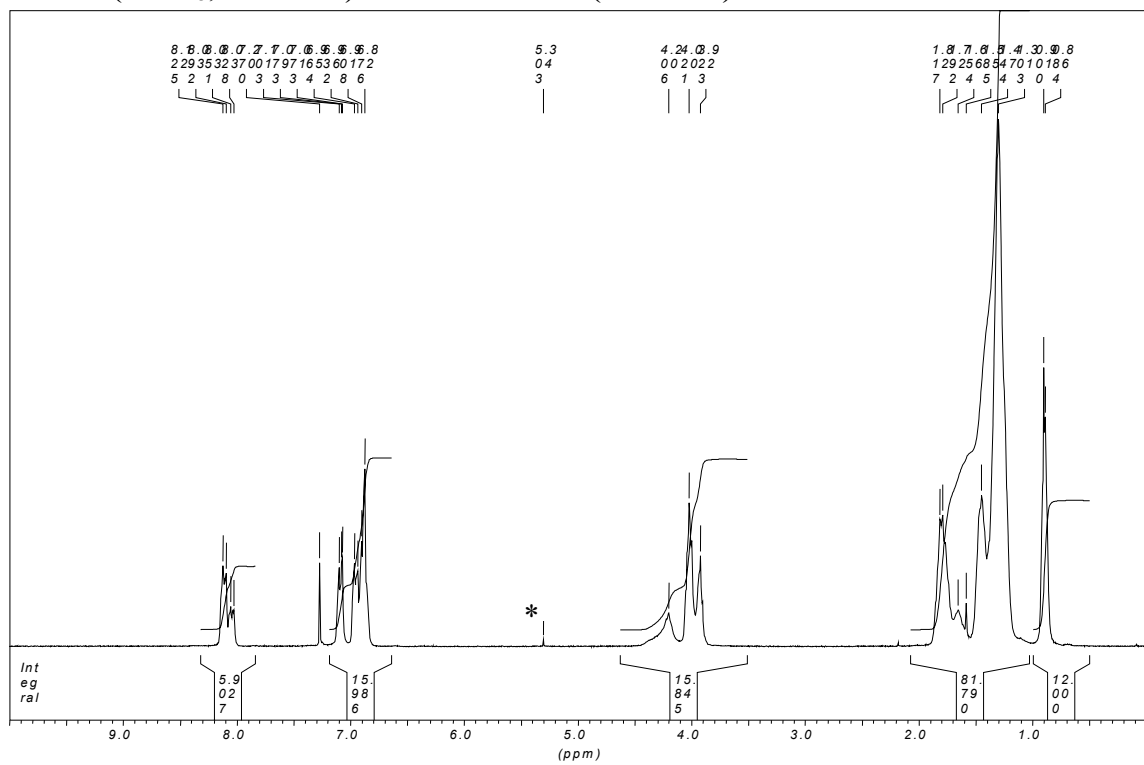
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- Molecular modelling picture

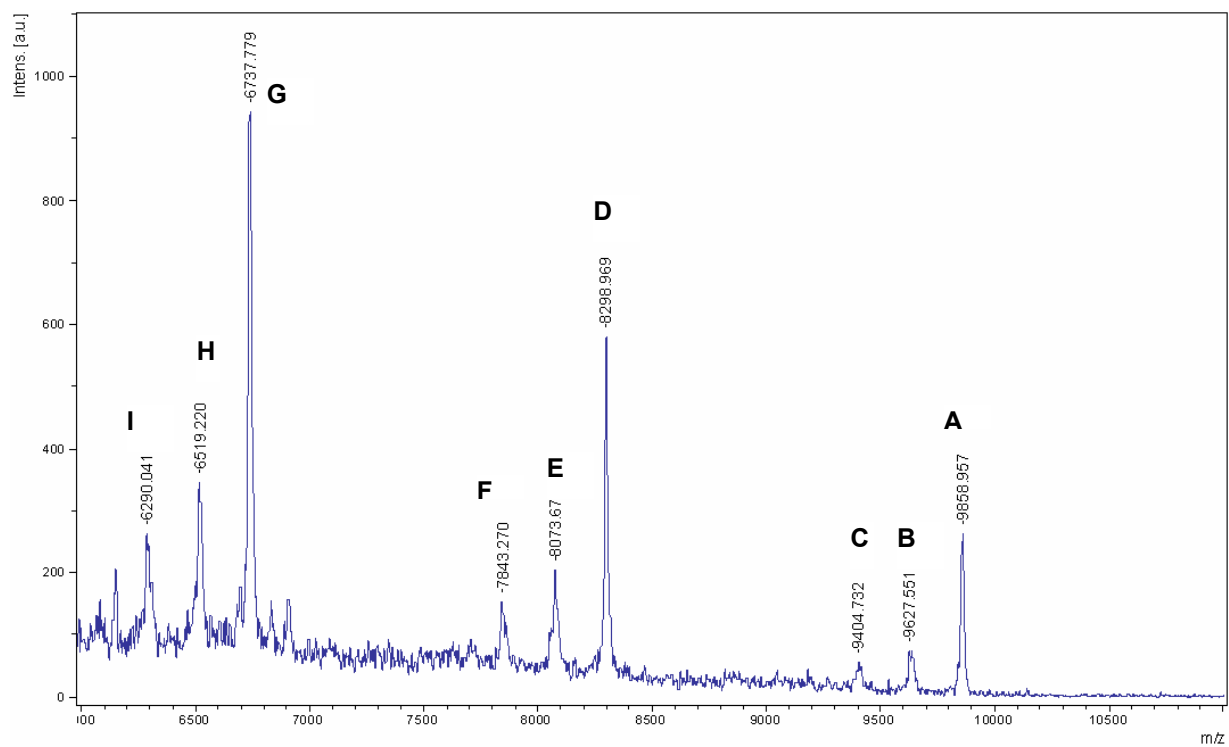


<sup>1</sup>H NMR (CDCl<sub>3</sub>, 300 MHz) of hexaadduct 1. (\* CH<sub>2</sub>Cl<sub>2</sub>)





### Mass spectrometry spectrum (Maldi-TOF) of 1



**A**  $[M - C_{14}H_{21}O_2]$

**B**  $[A - C_{15}H_{21}O_2]$

**C**  $[B - C_{14}H_{21}O_2]$

**D**  $[M - C_{95}H_{132}O_{18} \text{ (malonate)}]$

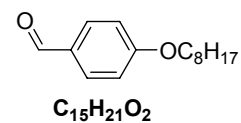
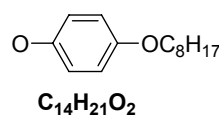
**E**  $[D - C_{14}H_{21}O_2]$

**F**  $[E - C_{15}H_{21}O_2]$

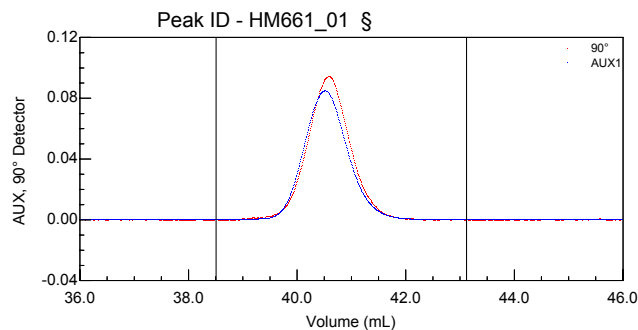
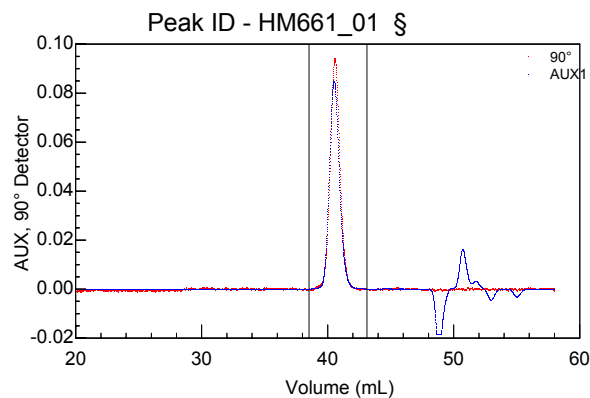
**G**  $[M - 2C_{95}H_{132}O_{18}]$

**H**  $[G - C_{14}H_{21}O_2]$

**I**  $[H - C_{15}H_{21}O_2]$



### Gas Permeation Chromatogram of 1.



#### RESULTS

		PEAK #1
Volume (mL)	:	38.508 - 43.117
Slices	:	554
A2 (mol mL/g <sup>2</sup> )	:	0.000e+00
Fit degree	:	1
Injected Mass (g)	:	3.0600e-04
dn/dc (mL/g)	:	0.153
Polydispersity(Mw/Mn)	:	1.033±0.028 (2.7%)
Polydispersity(Mz/Mn)	:	1.078±0.073 (7%)

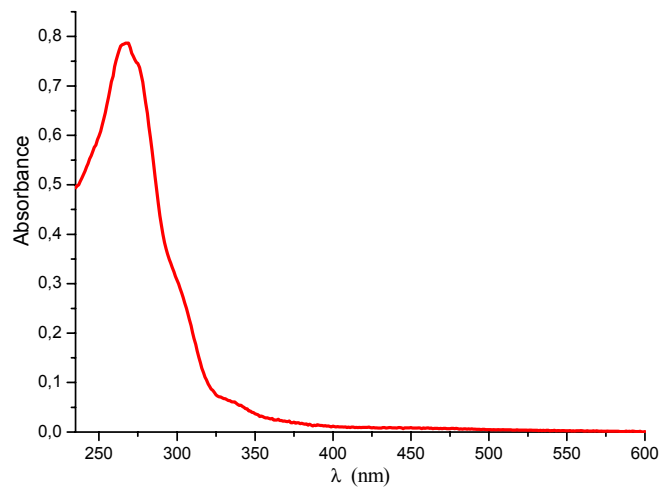
#### Molar Mass Moments (g/mol)

Mn	:	1.579e+04 (1.7%)
Mw	:	1.631e+04 (2.1%)
Mz	:	1.703e+04 (6%)

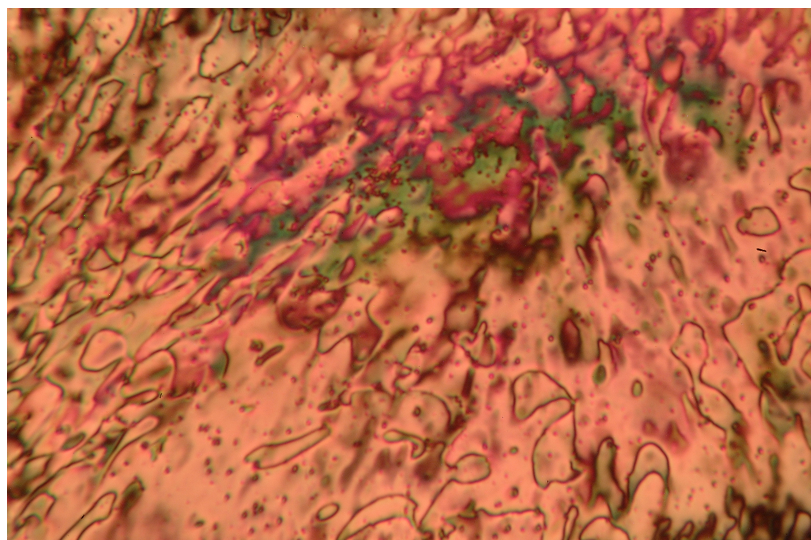
#### R.M.S. Radius Moments (nm)

Rn	:	0.0 (0%)
Rw	:	0.0 (0%)
Rz	:	0.0 (0%)

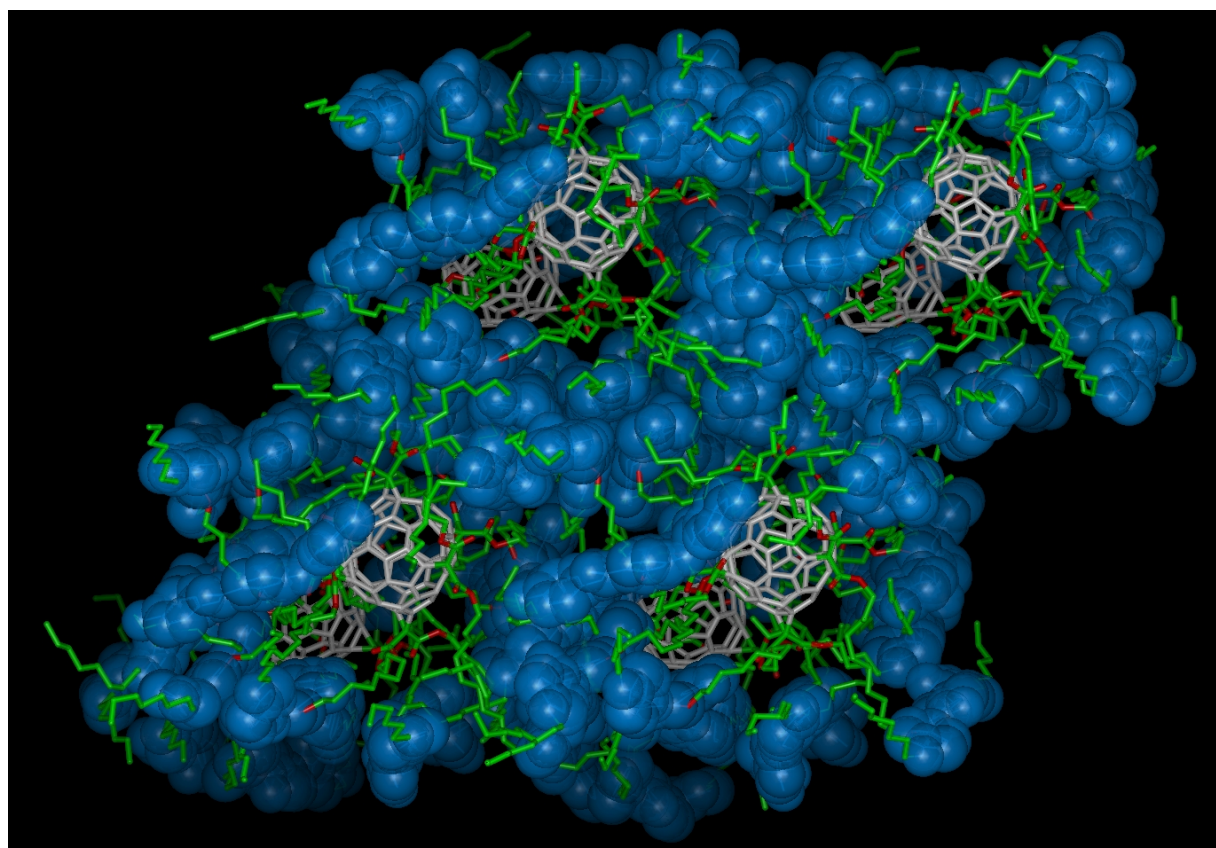
**UV-Visible spectrum (CH<sub>2</sub>Cl<sub>2</sub>) of 1 ([1]: 3.75.10<sup>-6</sup> mol/L)**



**Polarized optical microscope image of the nematic texture of compound 1 recorded at 55°C after cooling from isotropic.**



**Molecular modelling picture (View along the direction of the magnetic field) within the 3D cybotactic groups showing the hexagonal close packing of the supermolecules**



**Molecular modelling picture showing the molecular organization within the 3D cybotactic groups. A and B are the spacing as defined in the article.**

