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Liquid-crystalline cholesterol-based [60]fullerene hexaadducts

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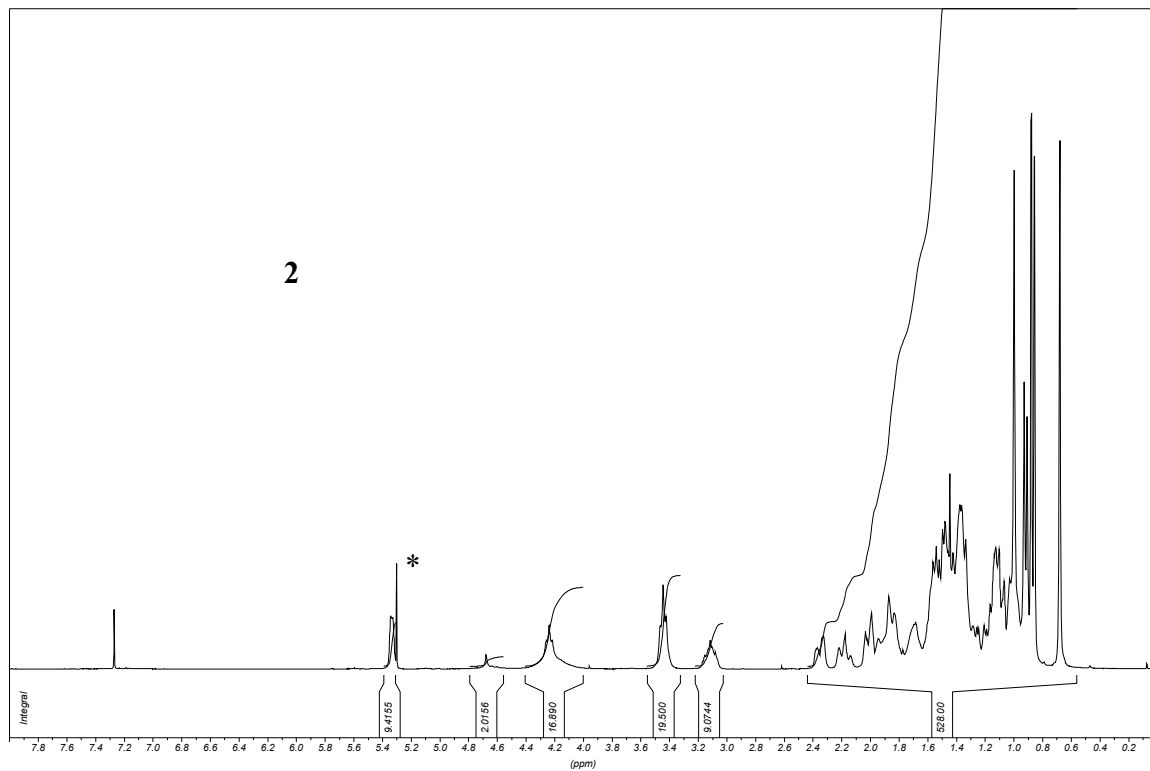
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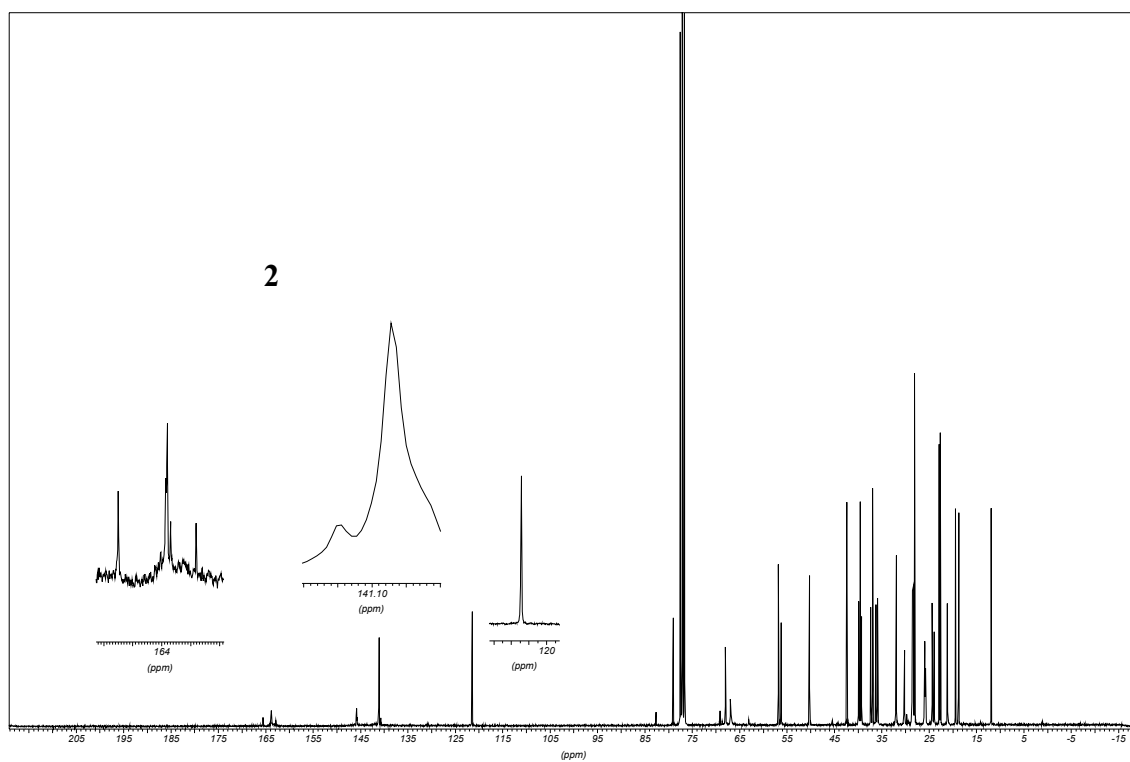
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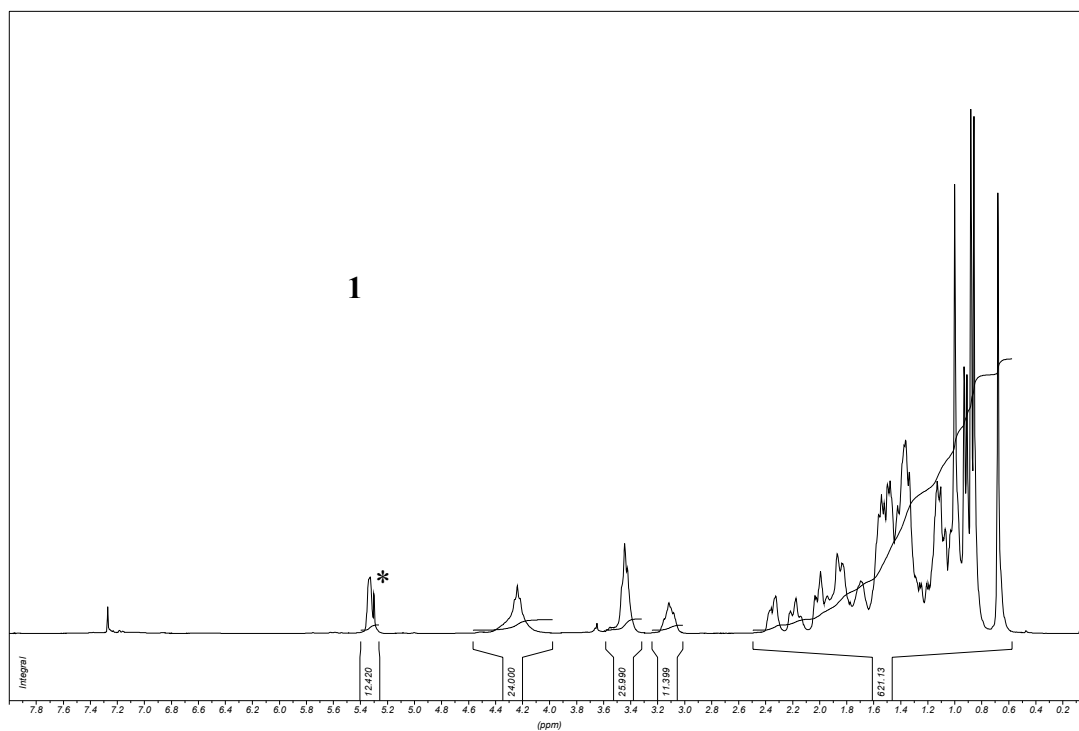
¹H NMR (CDCl₃, 300 MHz) of compound 2. (* CH₂Cl₂)



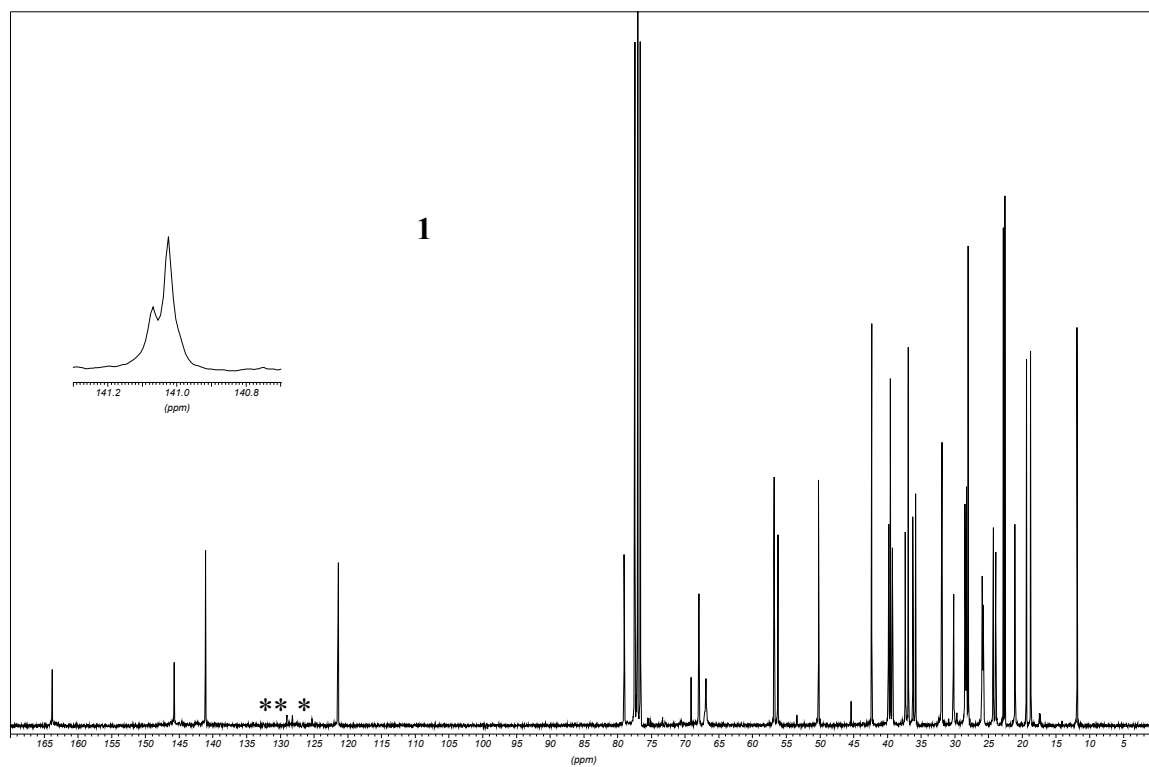
¹³C NMR (CDCl₃, 75 MHz) of compound 2.



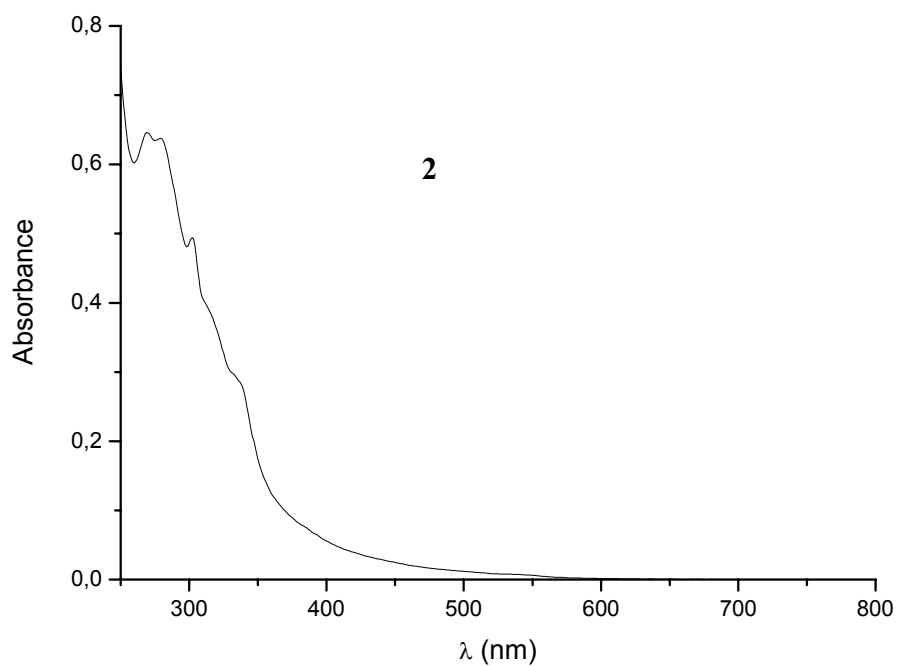
^1H NMR (CDCl_3 , 300 MHz) of compound 1. (* CH_2Cl_2)



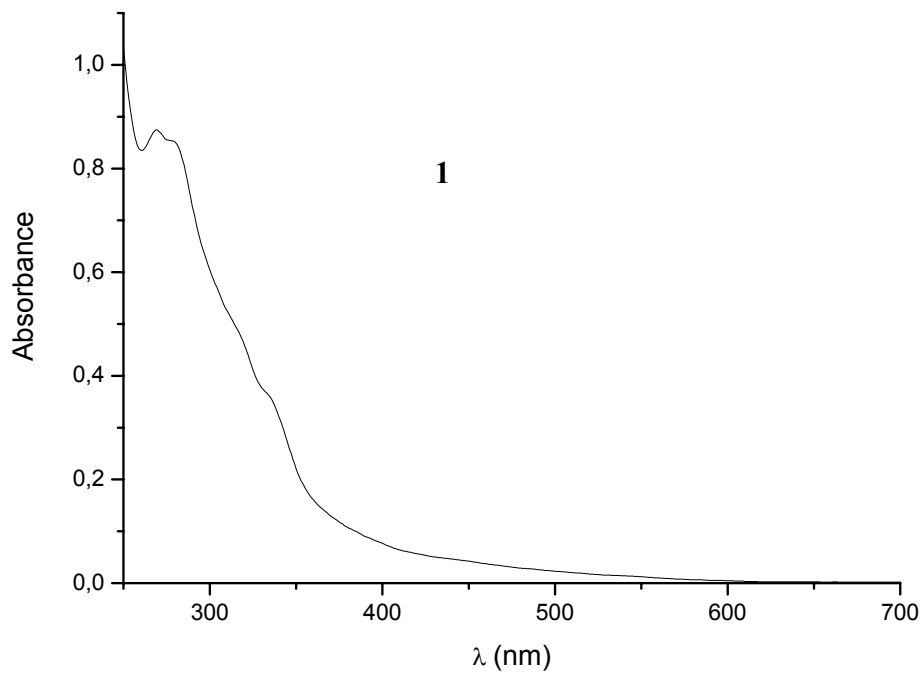
^{13}C NMR (CDCl_3 , 75 MHz) of compound 1. (* toluene)



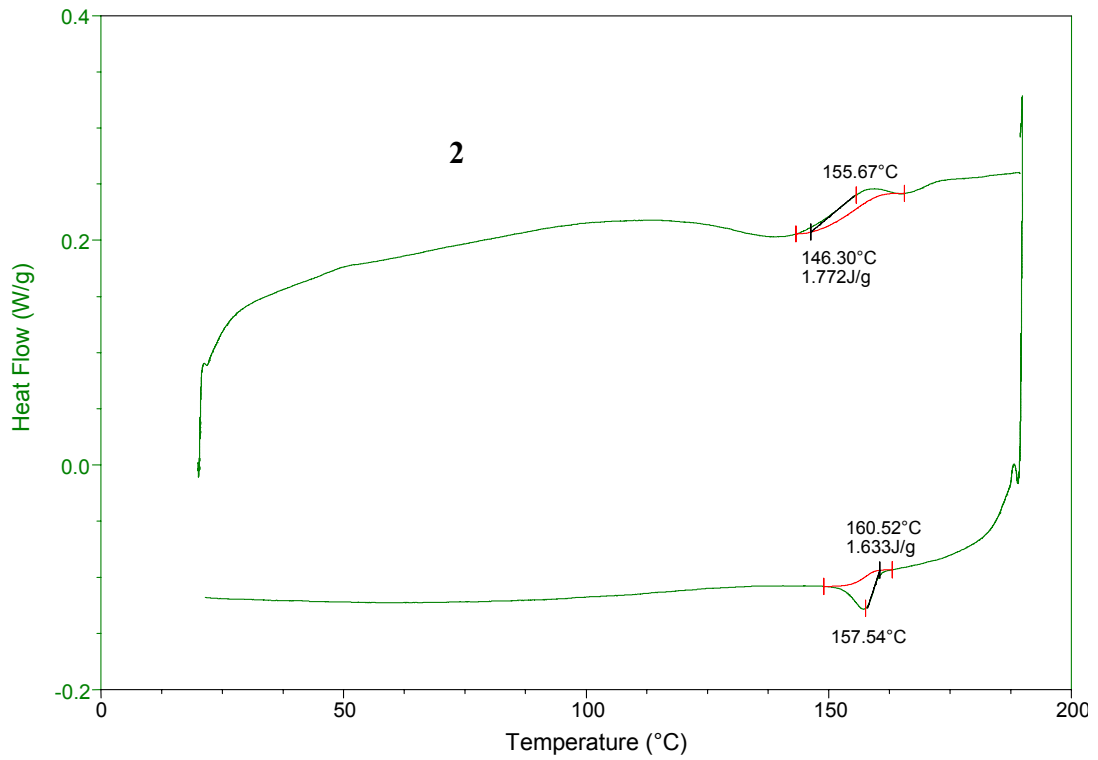
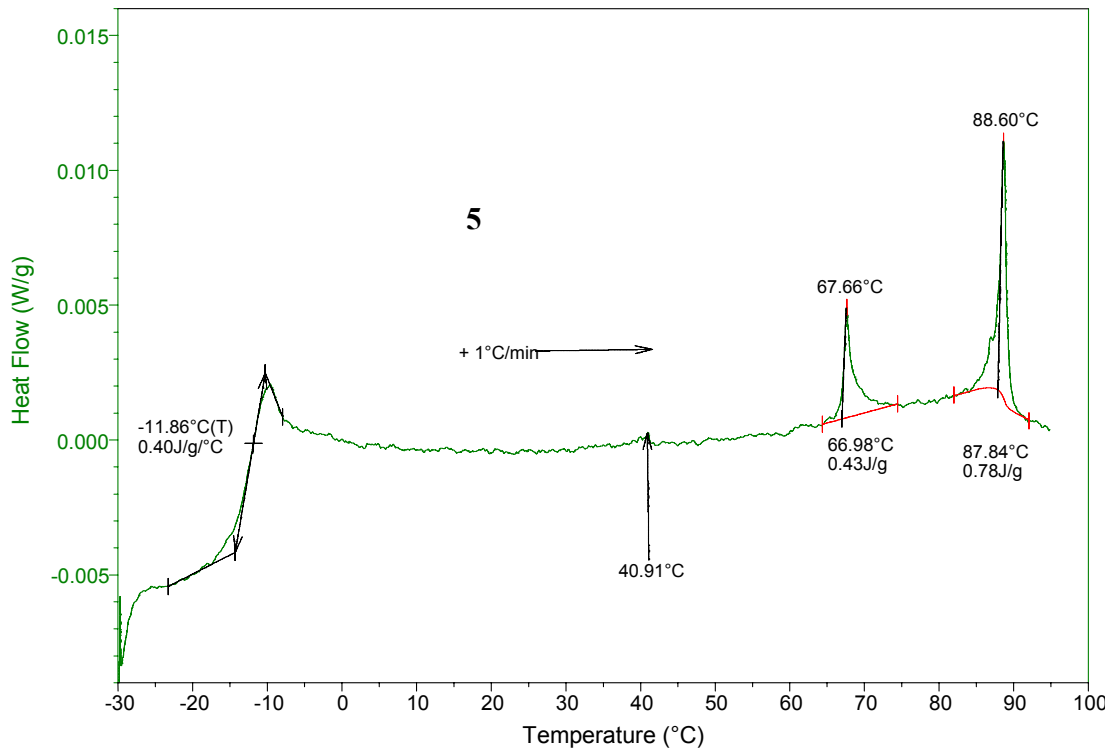
UV-Visible spectrum (CH_2Cl_2) of compound 2.

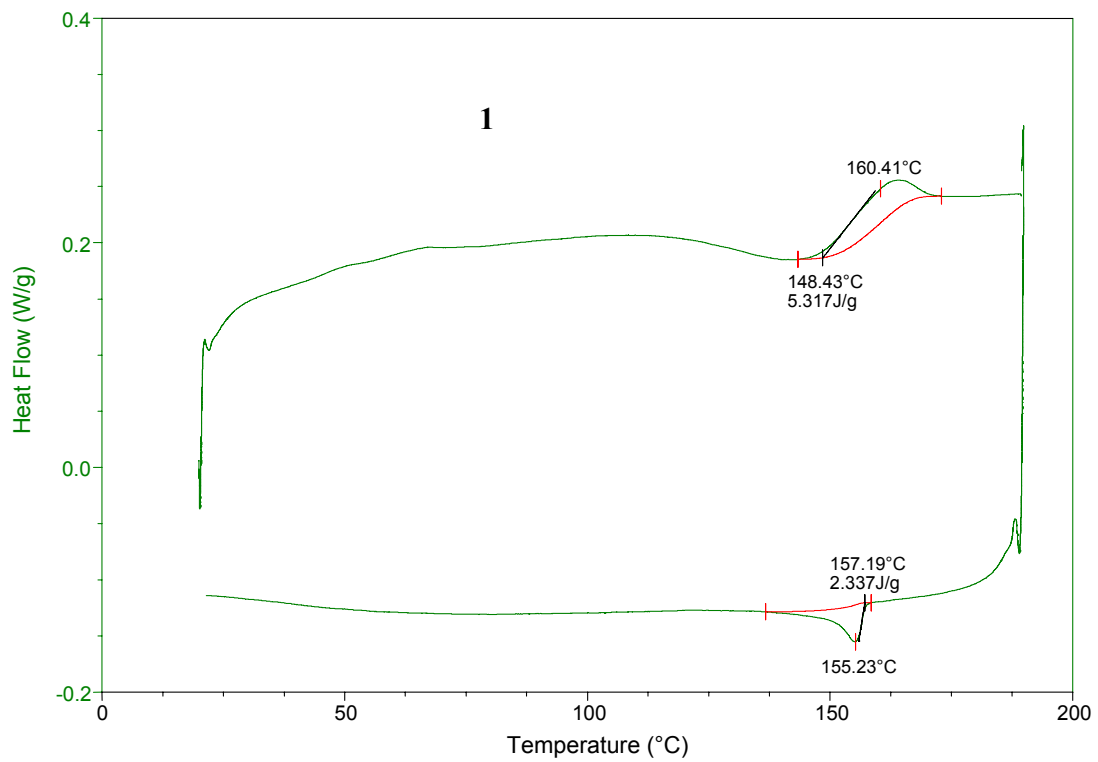


UV-Visible spectrum (CH_2Cl_2) of compound 1.



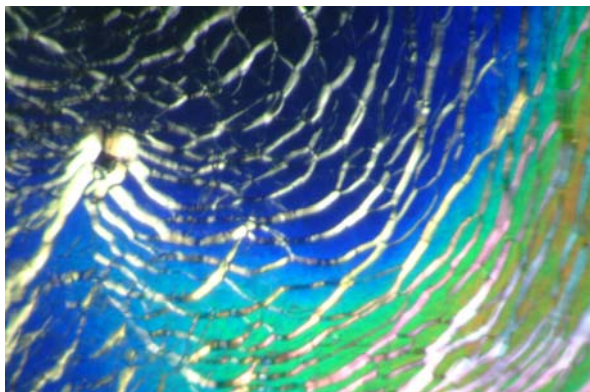
DSC curves obtained for 5 (first heating), 2 and 1 (first heating-cooling cycle).



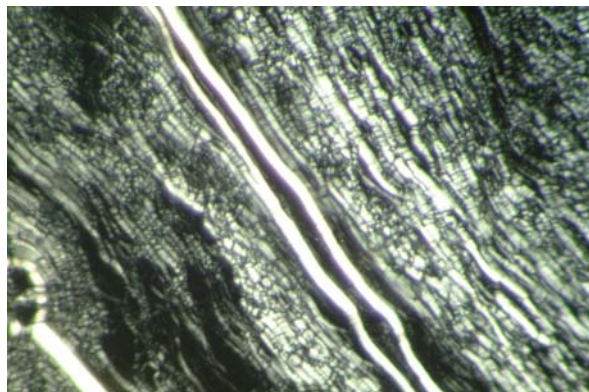


Polarizing optical microscope photographs of malonate 5 at: (a) 70°C, (b) 80°C.

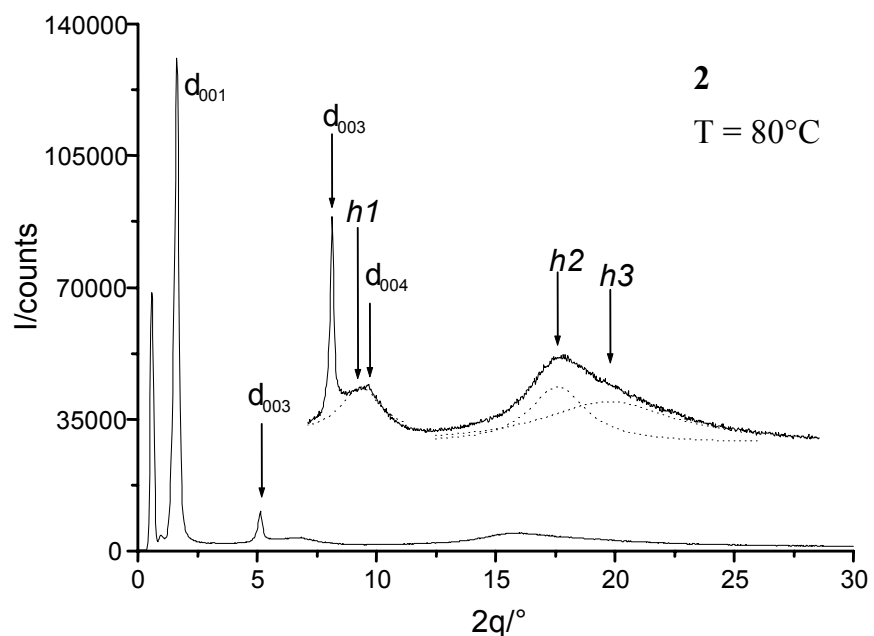
(a)



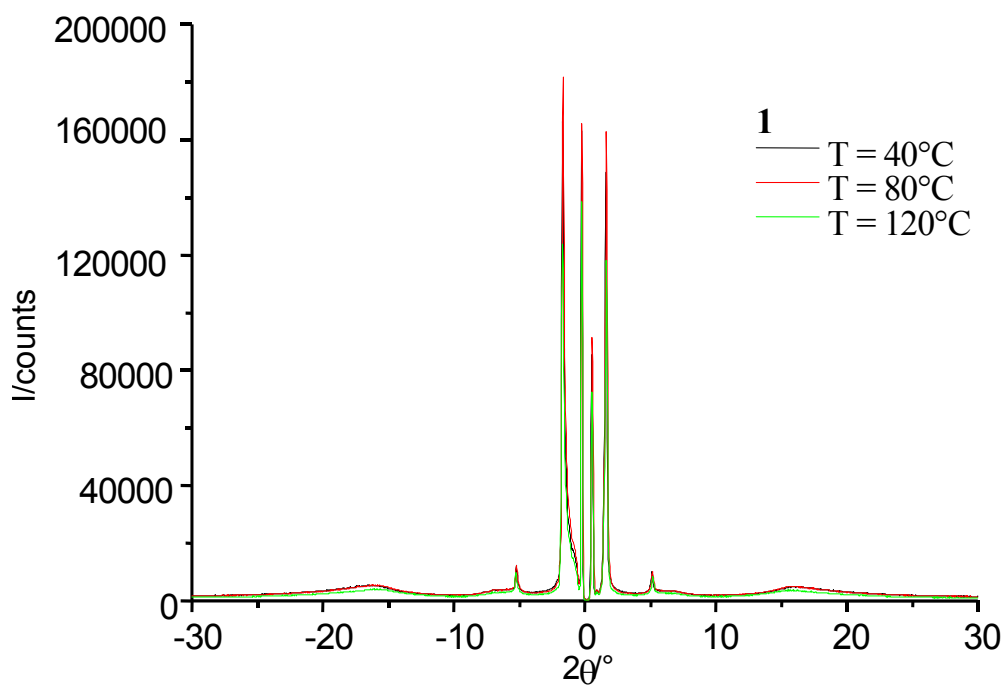
(b)

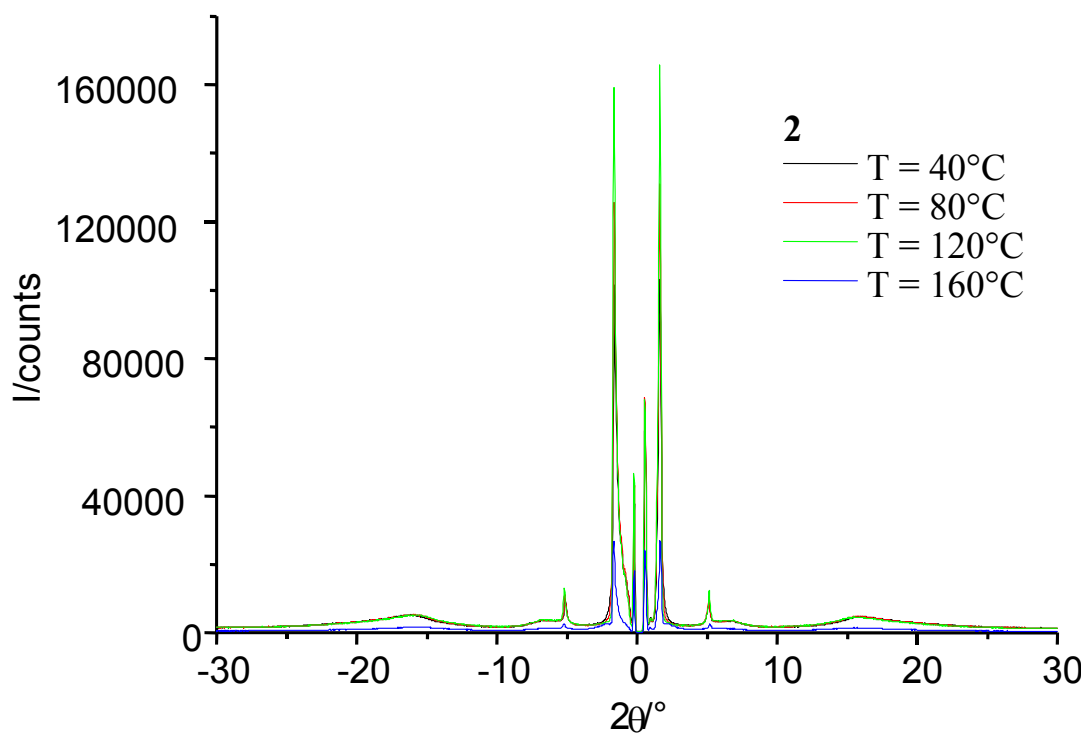


X-Ray diffraction pattern obtained for 2 at 80°C.

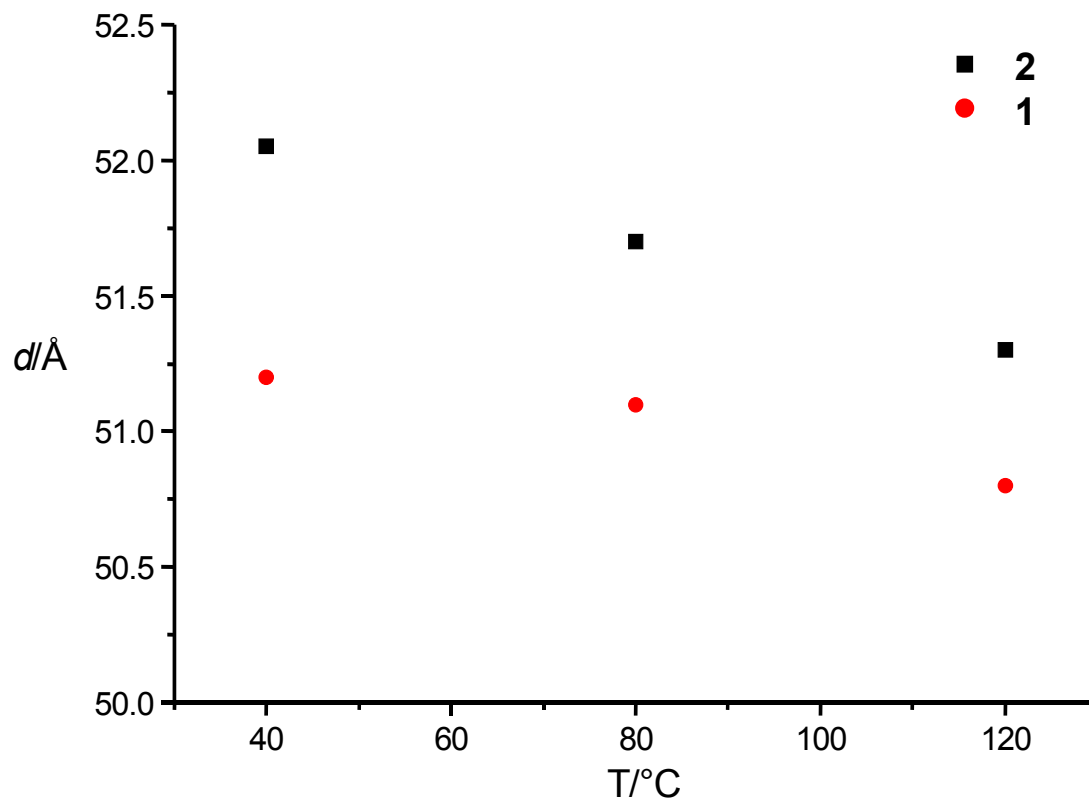


Evolution of the X-ray patterns of 1 and 2 with temperature.





Variation of the lamellar periodicity d with temperature for 1 and 2.



Molecular modelling picture: short-range hexagonal lattice obtained for 1 by molecular modelling: (a) top view, (b) side view.

