Electronic Supplementary Information

Fluorescent supramolecular liquid crystalline polymers from nucleobase-terminated monomers

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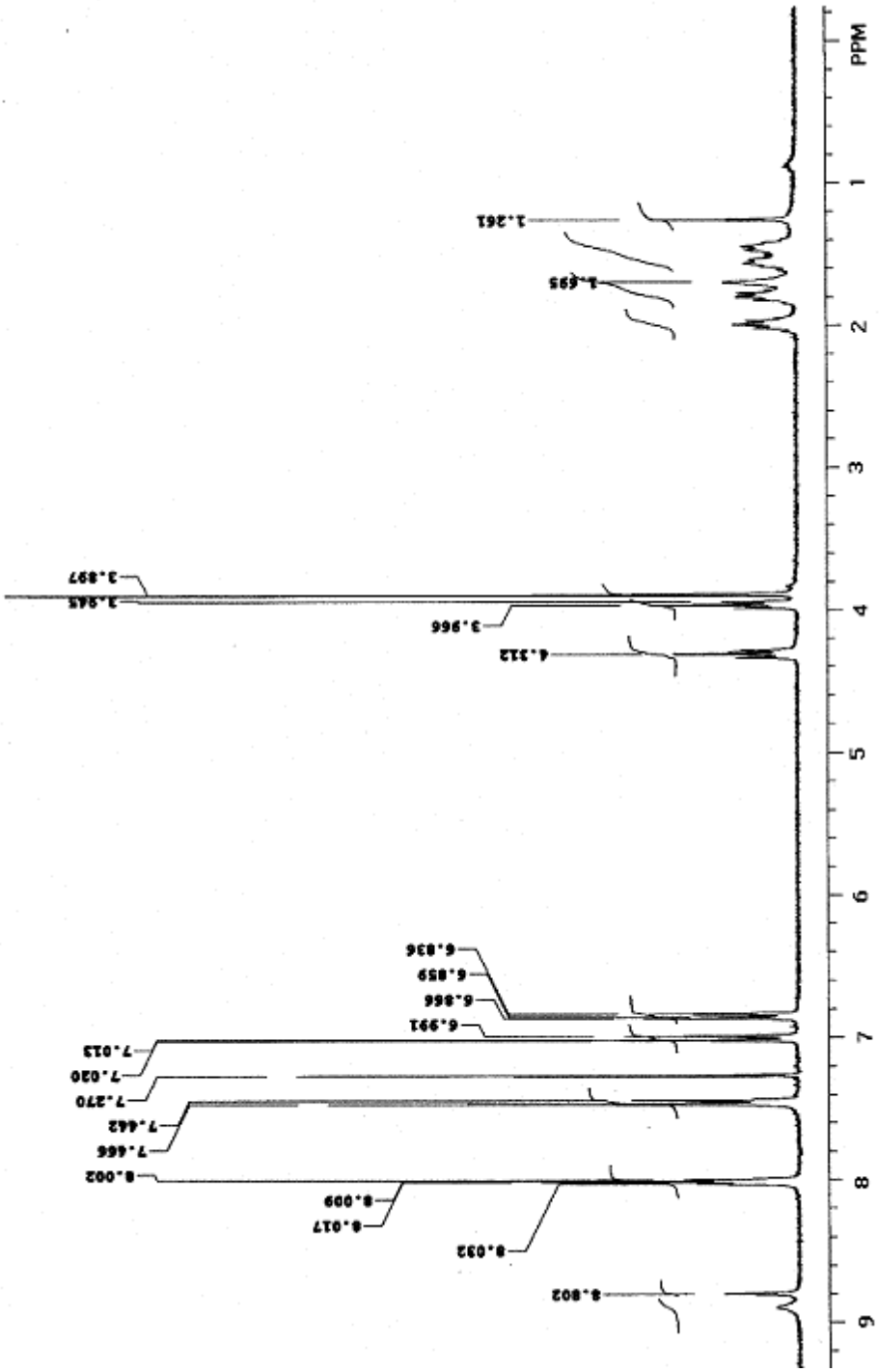
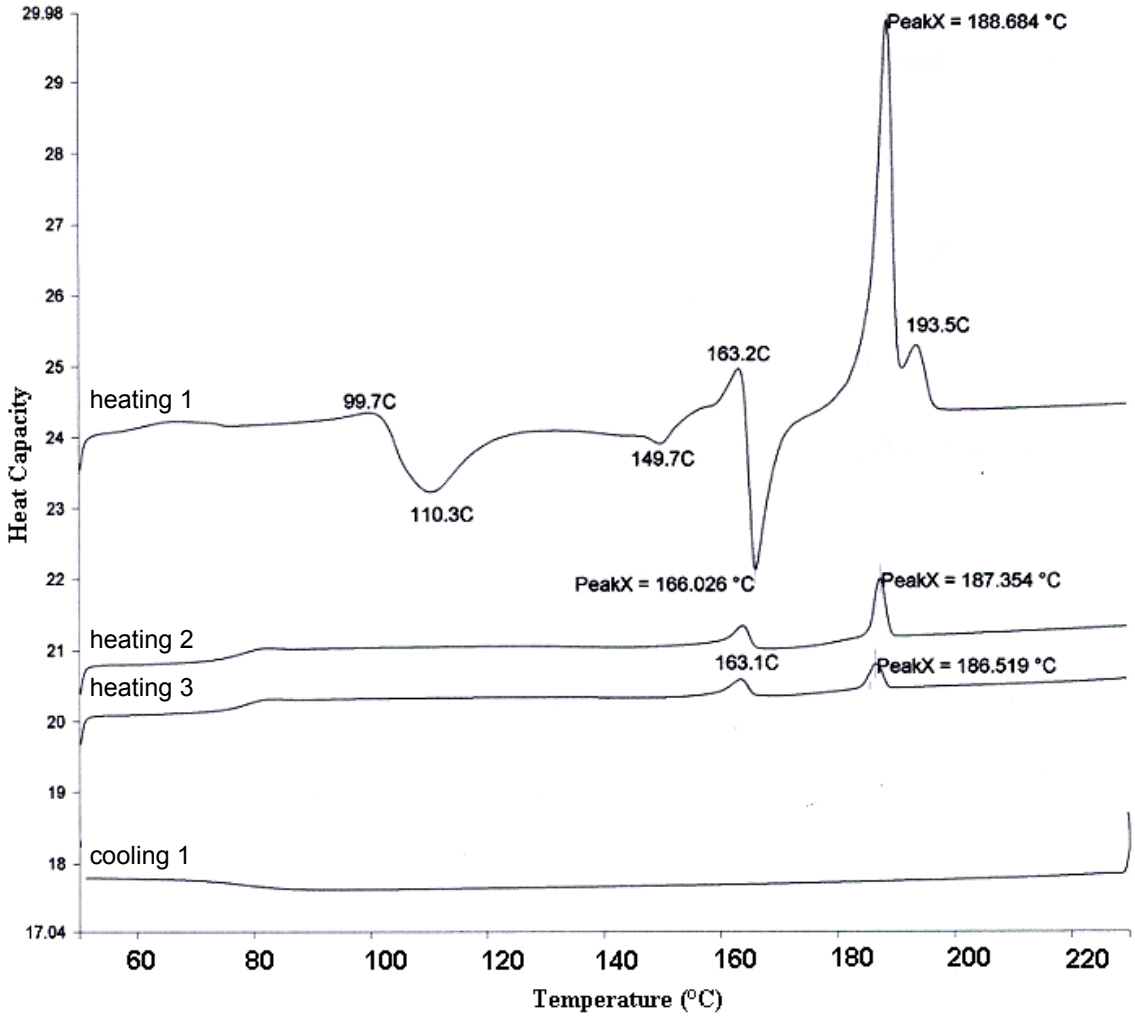
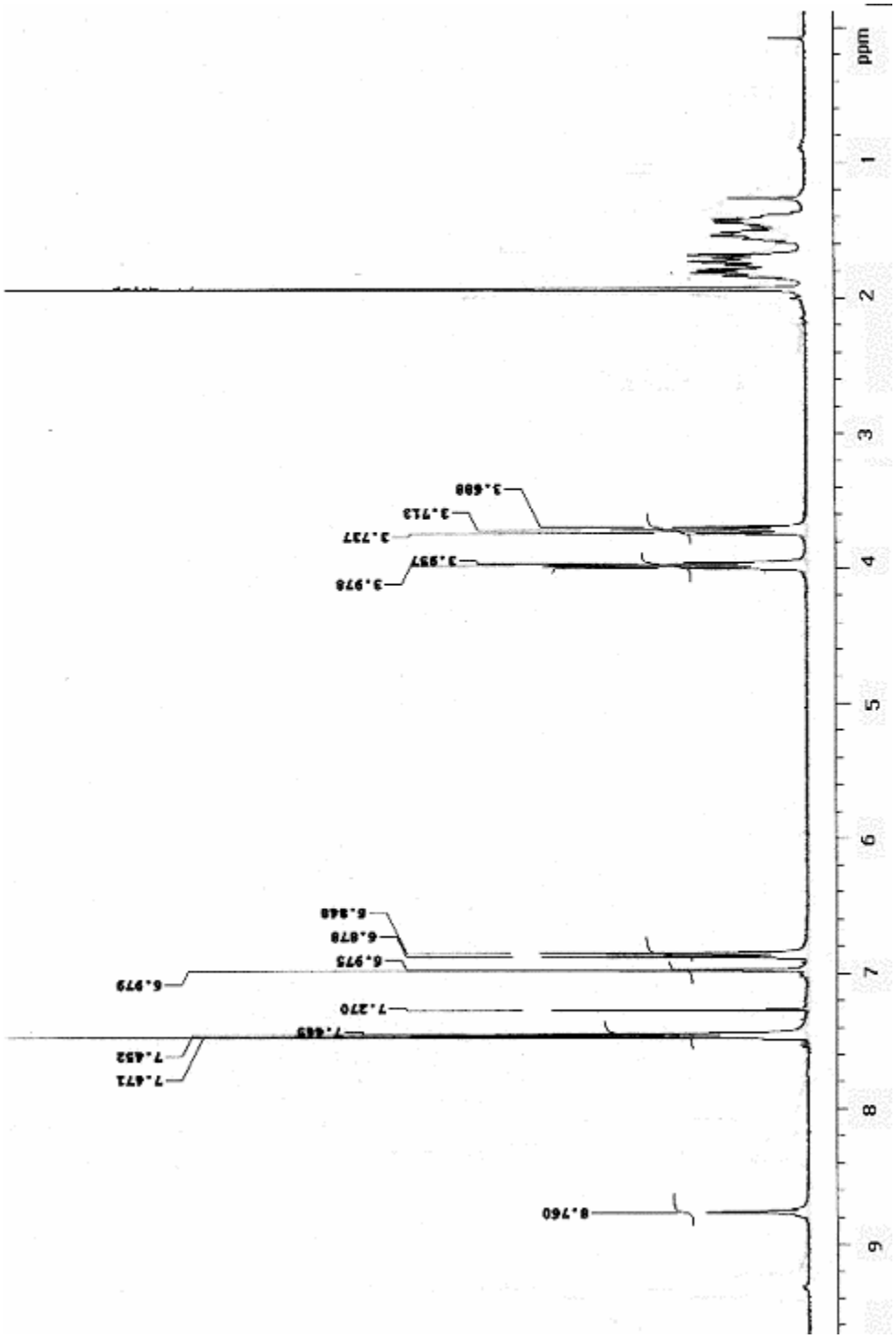


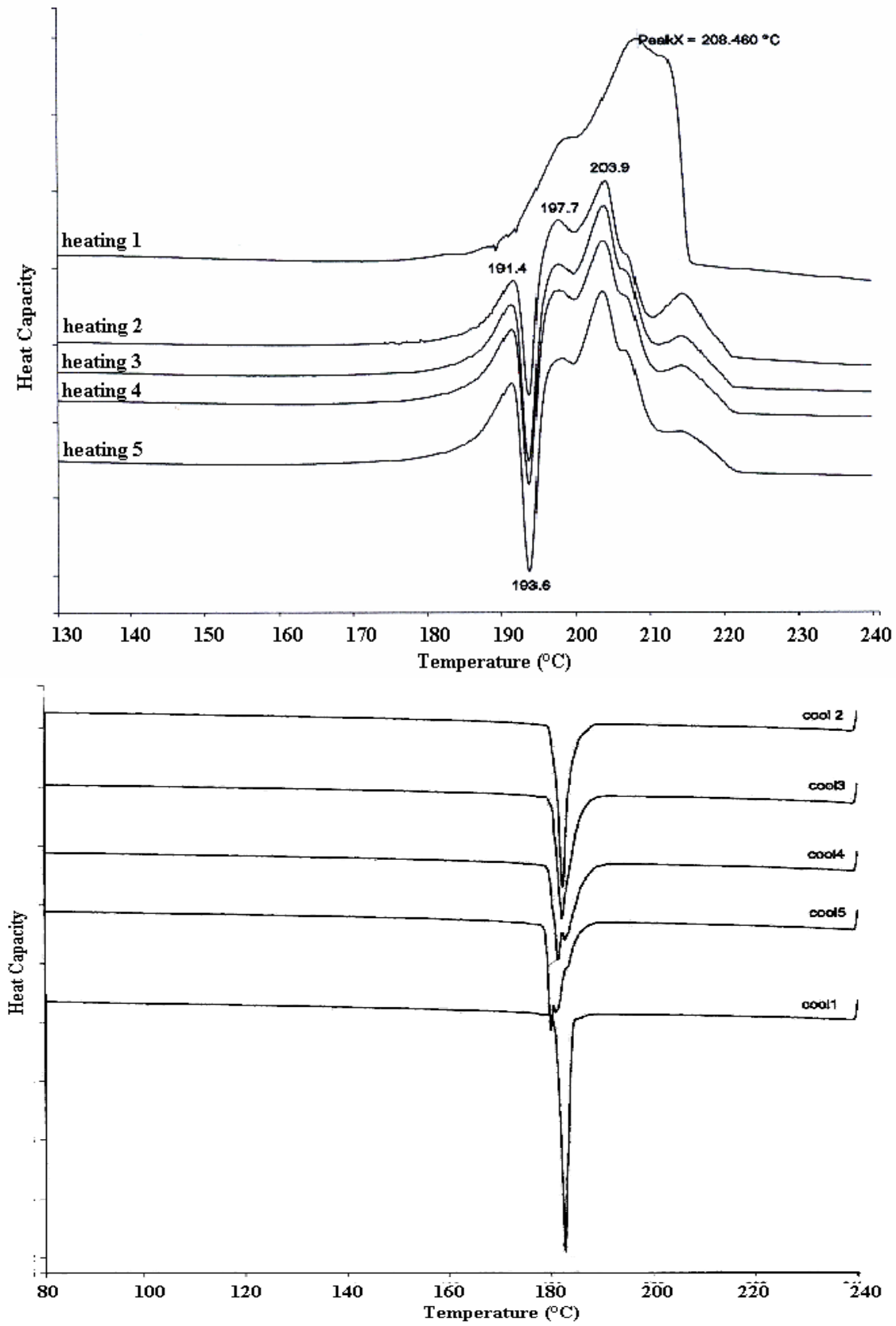
^{1}H NMR spectrum (acquired in $CDCl_3$ at 298 K on a Varian 300 MHz NMR spectrometer) of N^6-(4-methoxybenzoyl)-adenine terminated bis(phenylethynyl)-benzene core (**A^{An}-3a-A^{An}**). Chemical shifts are expressed in ppm.



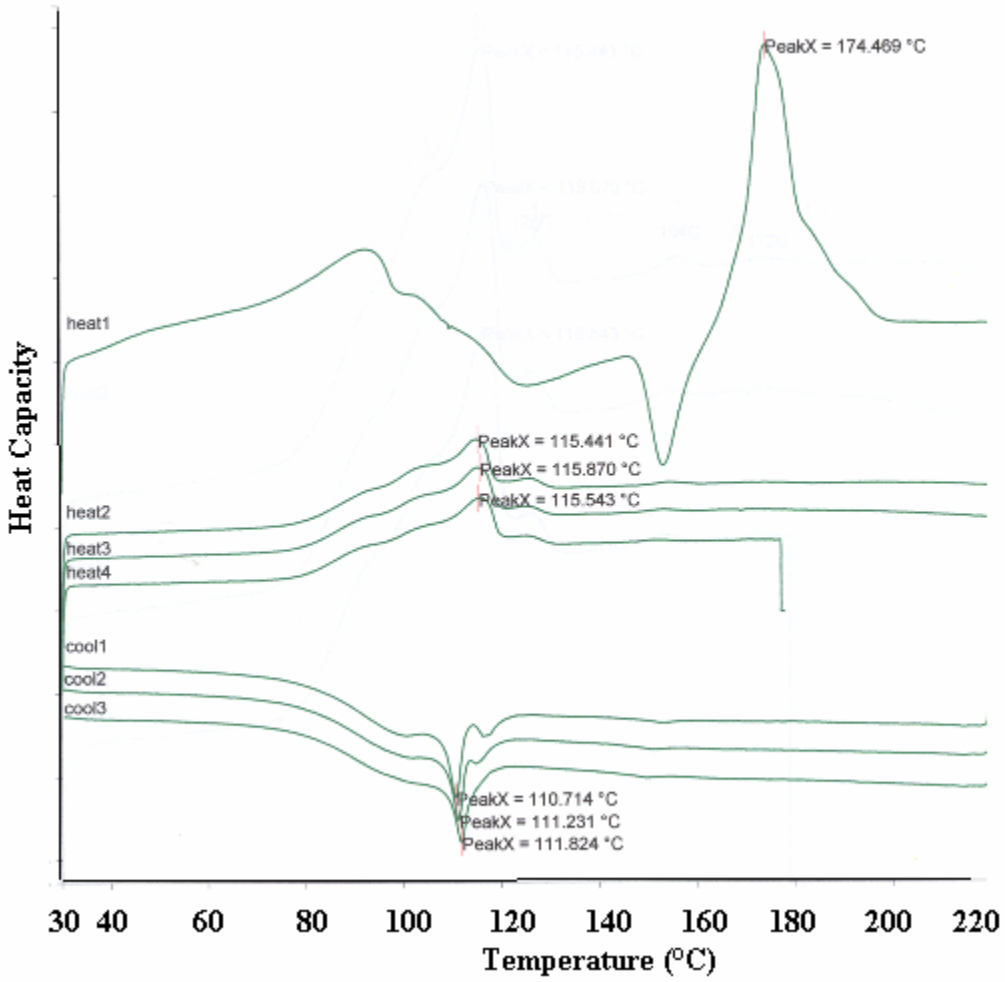
DSC Thermogram of N^6-(4-methoxybenzoyl)-adenine terminated bis(phenylethynyl)-benzene core (**A^{An}-3a-A^{An}**). Heating and cooling cycles performed at rate of 5ºC/min. All cooling cycles showed identical behavior thus only one representative curve is shown.



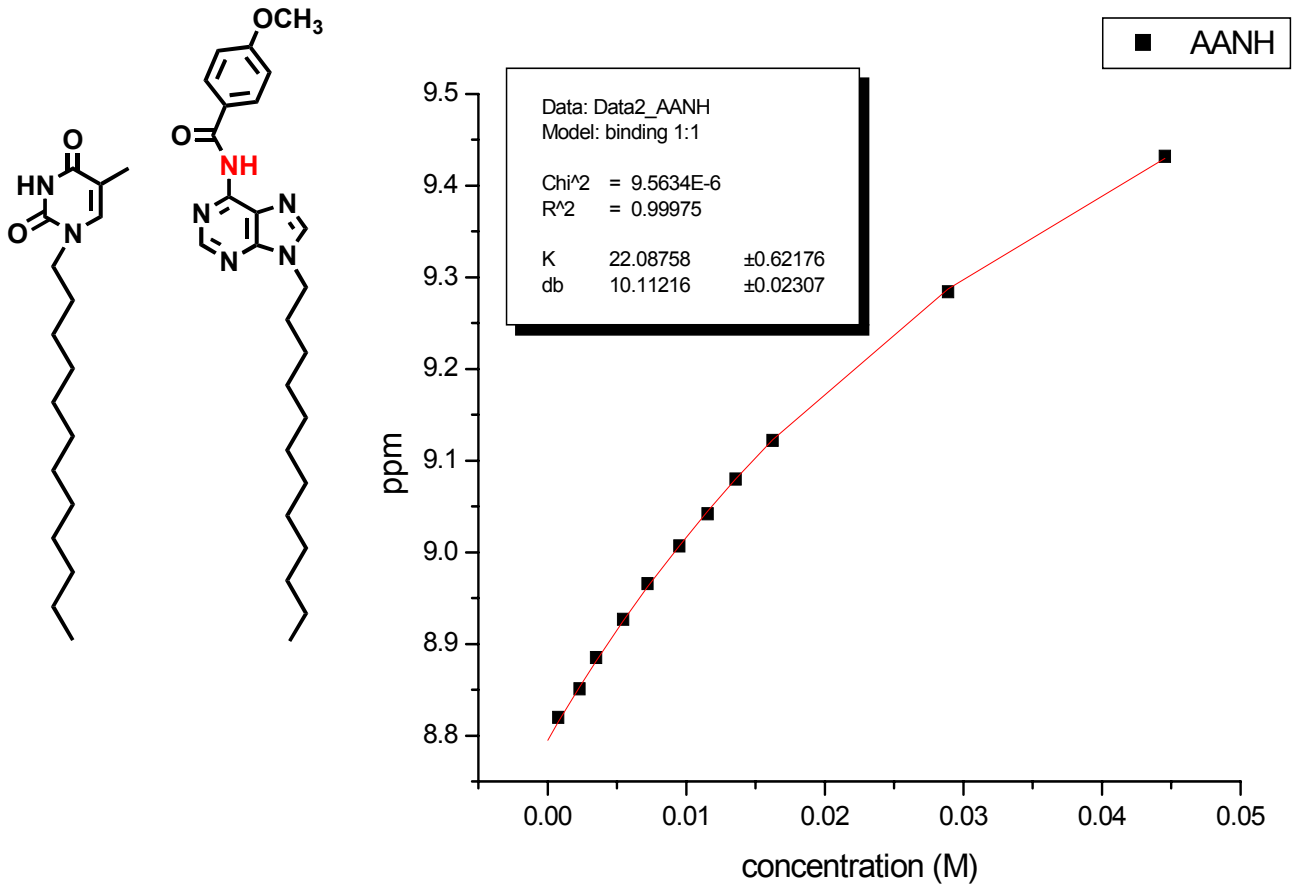
^{1}H NMR spectrum (acquired in $CDCl_3$ at 298 K on a Varian 300 MHz NMR spectrometer) of thymine terminated bis(phenylethynyl)-benzene core (**T-3a-T**). Chemical shifts are expressed in ppm.



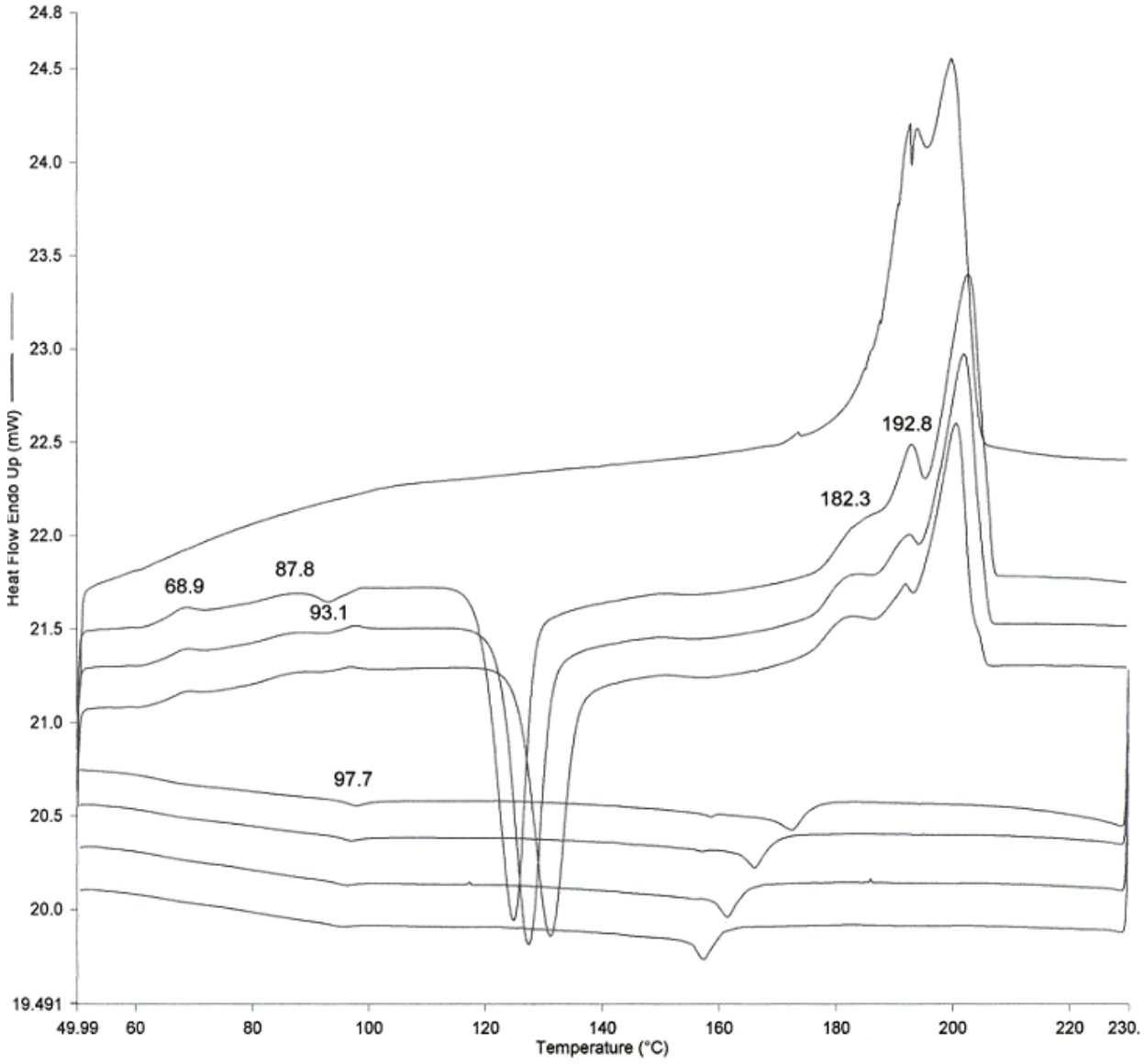
DSC Thermogram of (a) heating curves of **T-3a-T** and (b) cooling curves of **T-3a-T**. All heating and cooling cycles performed at 5ºC/min.



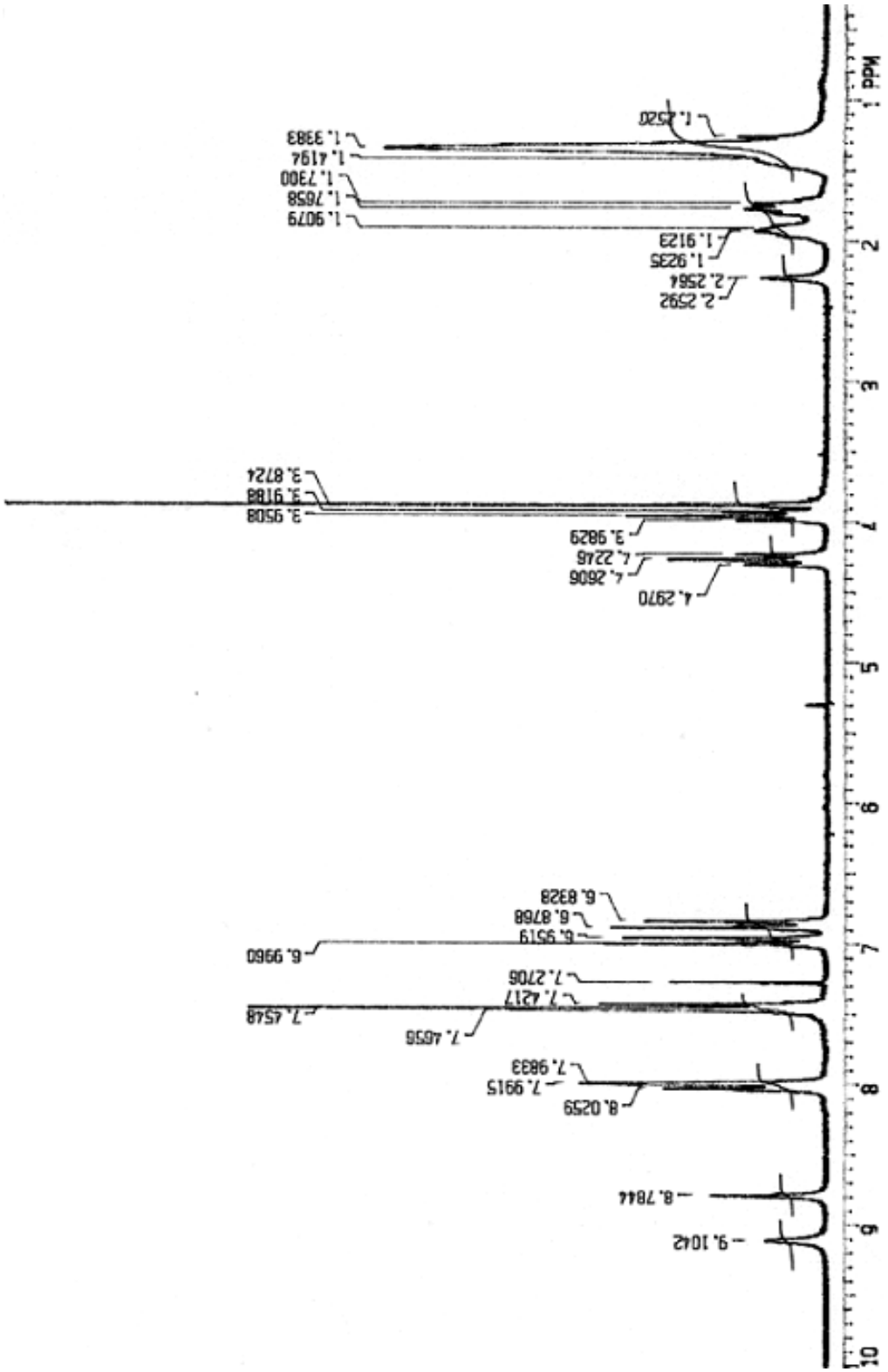
DSC Thermogram of 1:1 molar mixture of $\mathbf{A^{An}}$**-3a-**$\mathbf{A^{An}}$ and **T-3a-T**. Heating & cooling rates: 5°C/min.



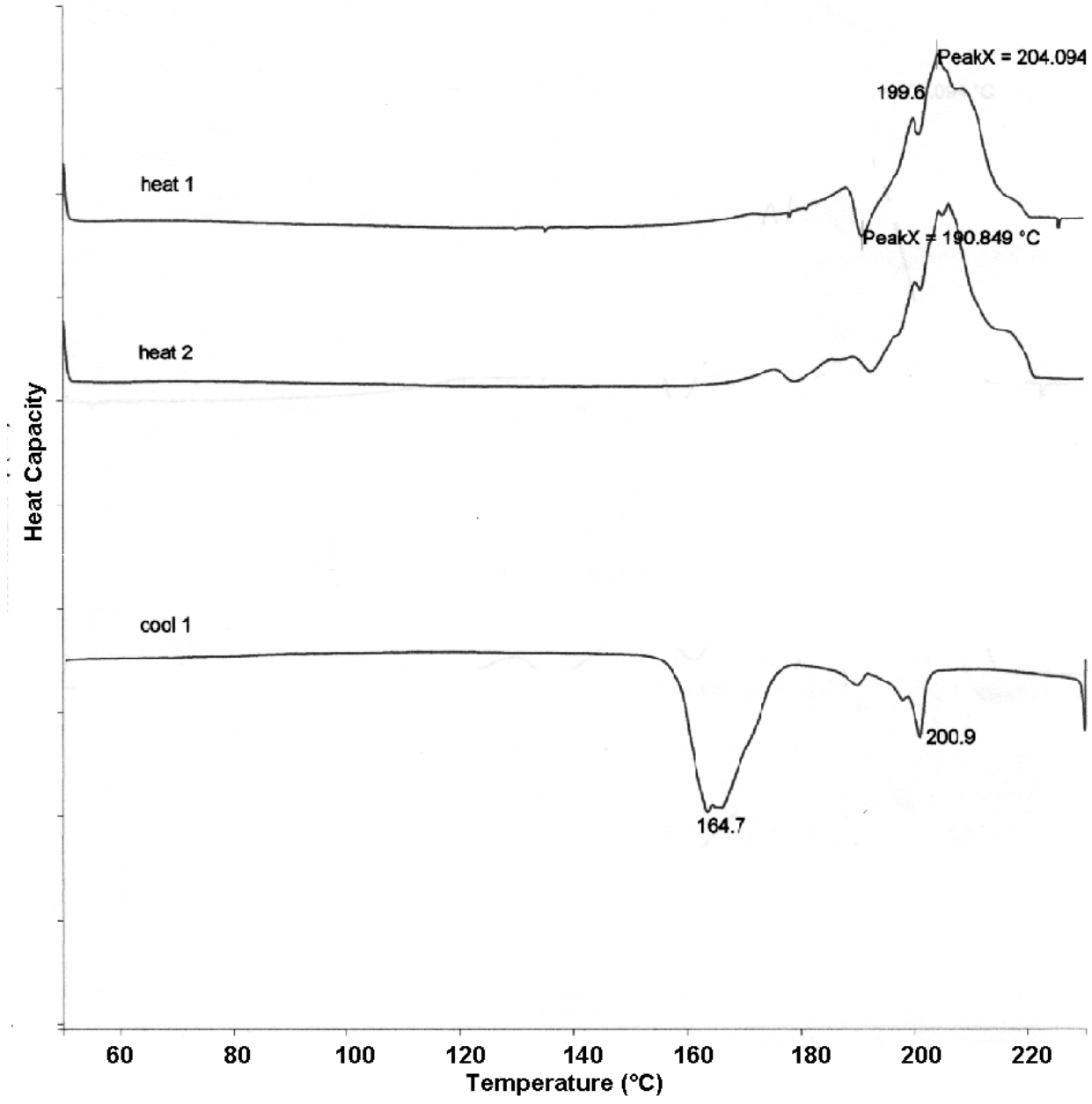
NMR titration with nonlinear least-square curve fitting for complex of N^{6}-(4-methoxybenzoyl)-adenine with thymine based on the adenine NH shift ; solvent: $CDCl_3$. Measured binding constant: $K = 22M^{-1}$.



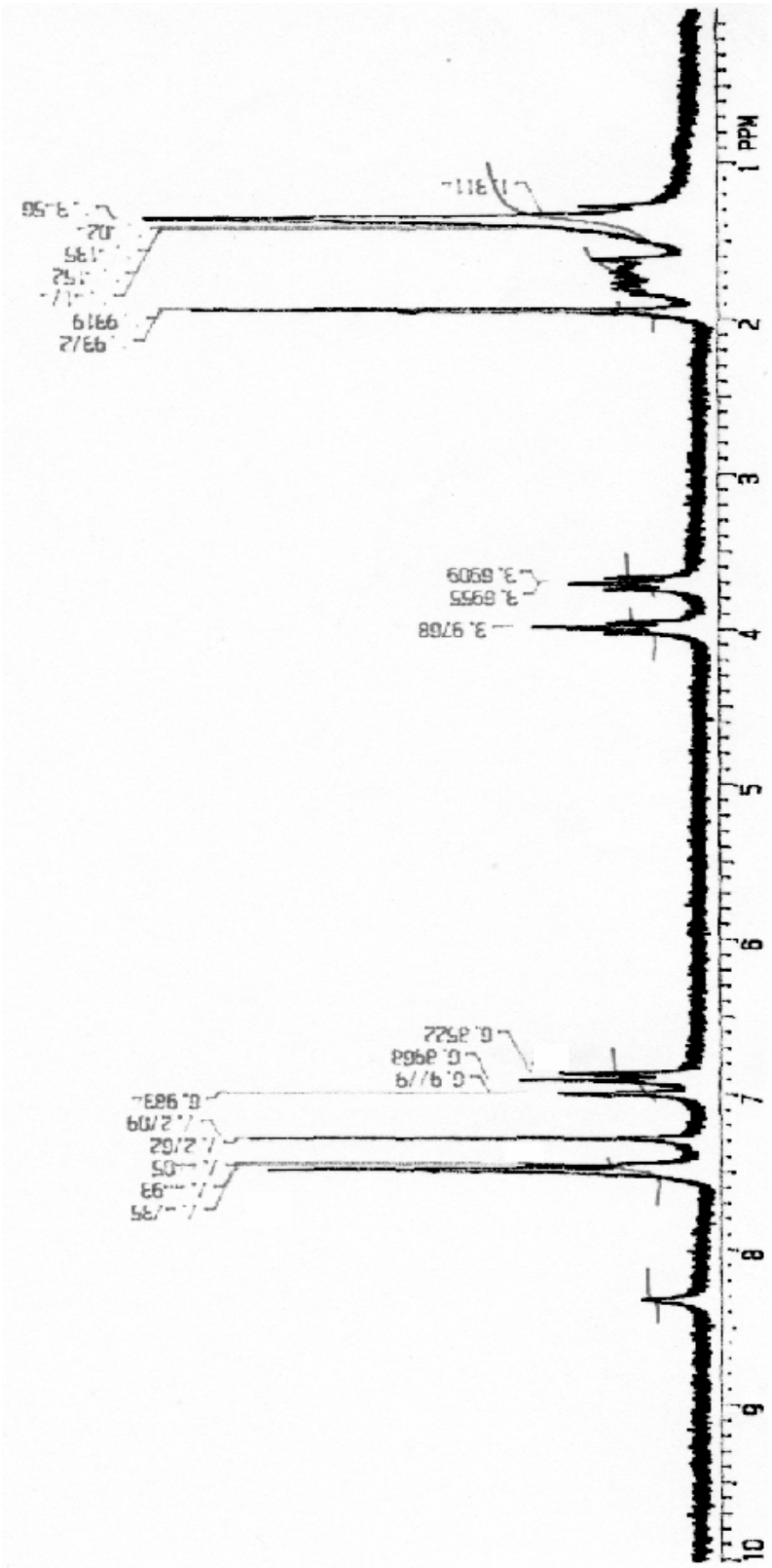
DSC Thermogram of N^6-(4-methoxybenzoyl)-adenine terminated bis(phenylethynyl)-benzene core (**A^{An}-3b-A^{An}**). Heating and cooling cycles performed at rate of 5ºC/min.



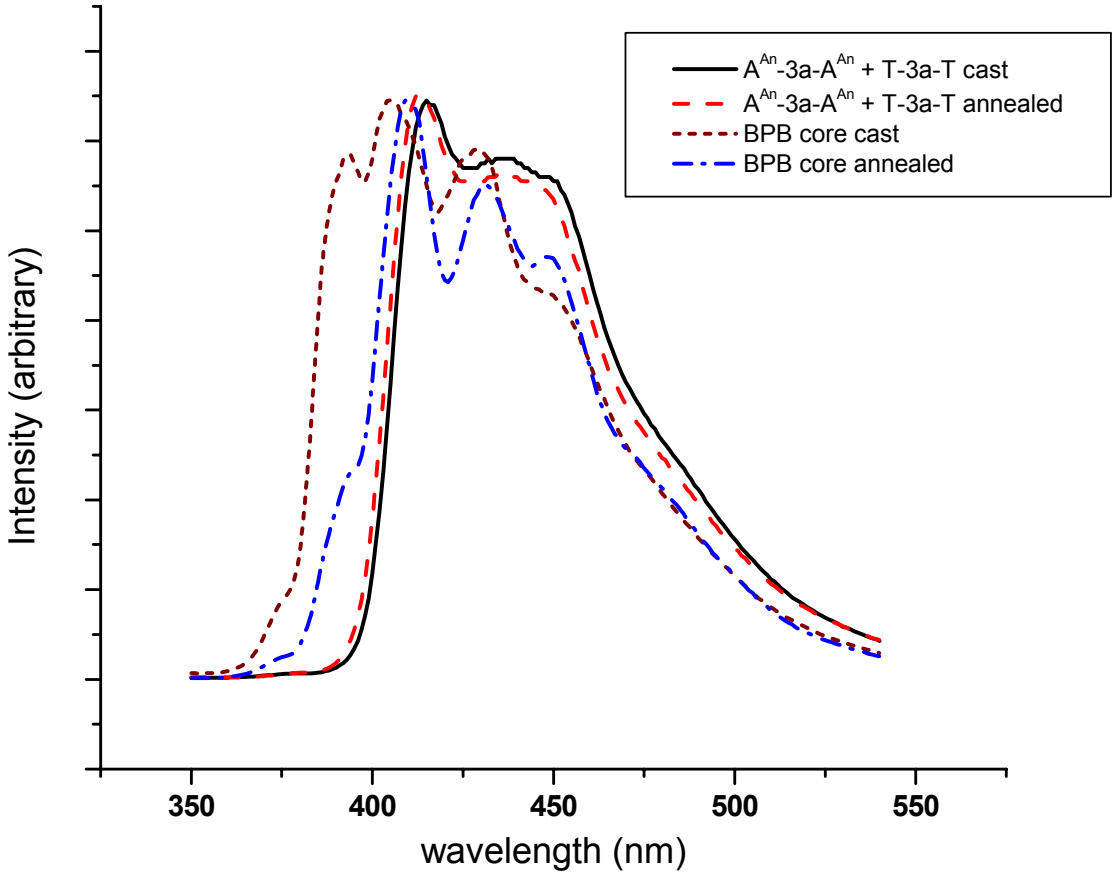
^{1}H NMR spectrum (acquired in $CDCl_3$ at 298 K on a Varian 200 MHz NMR spectrometer) of N^6-(4-methoxybenzoyl)-adenine terminated bis(phenylethynyl)-benzene core (**A^{An}-3b-A^{An}**). Chemical shifts are expressed in ppm.



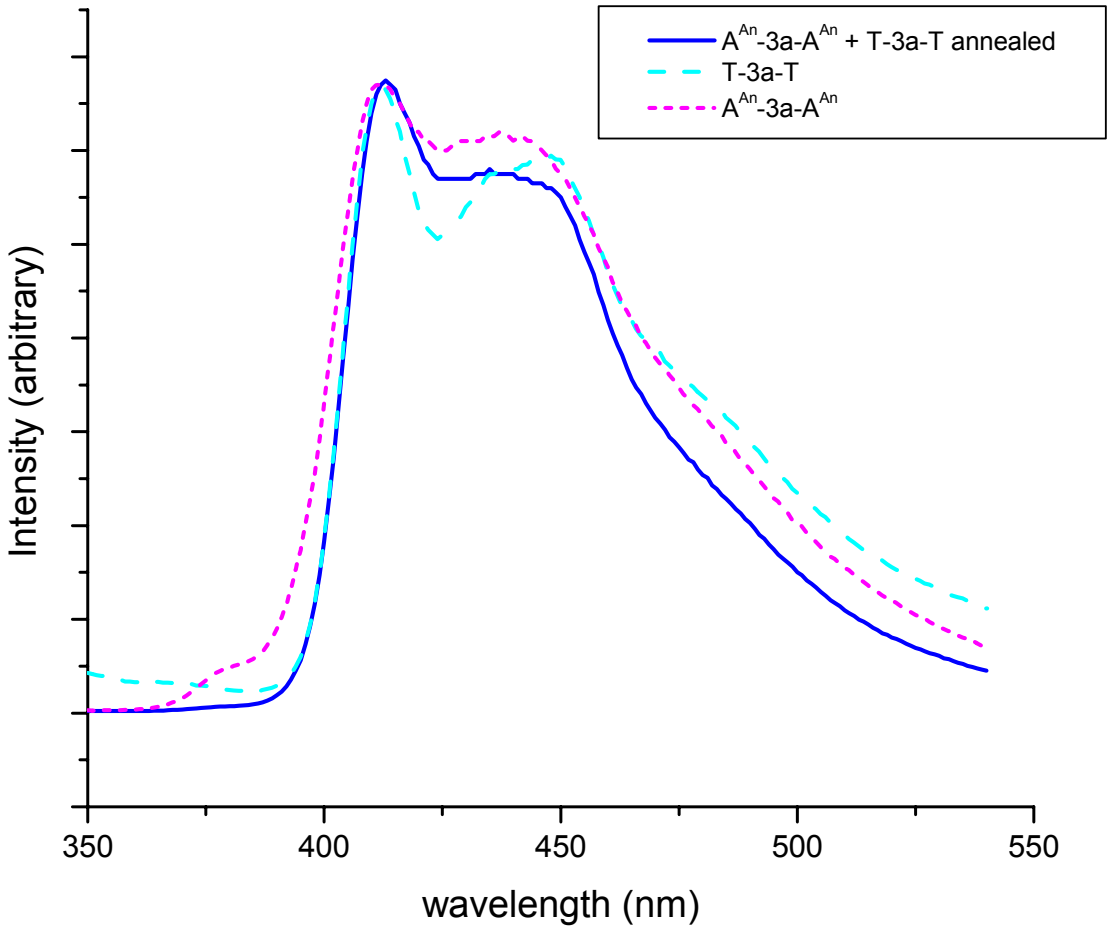
DSC Thermogram of thymine terminated bis(phenylethynyl)-benzene core (**T-3b-T).** Heating and cooling cycles performed at rate of 5ºC/min.



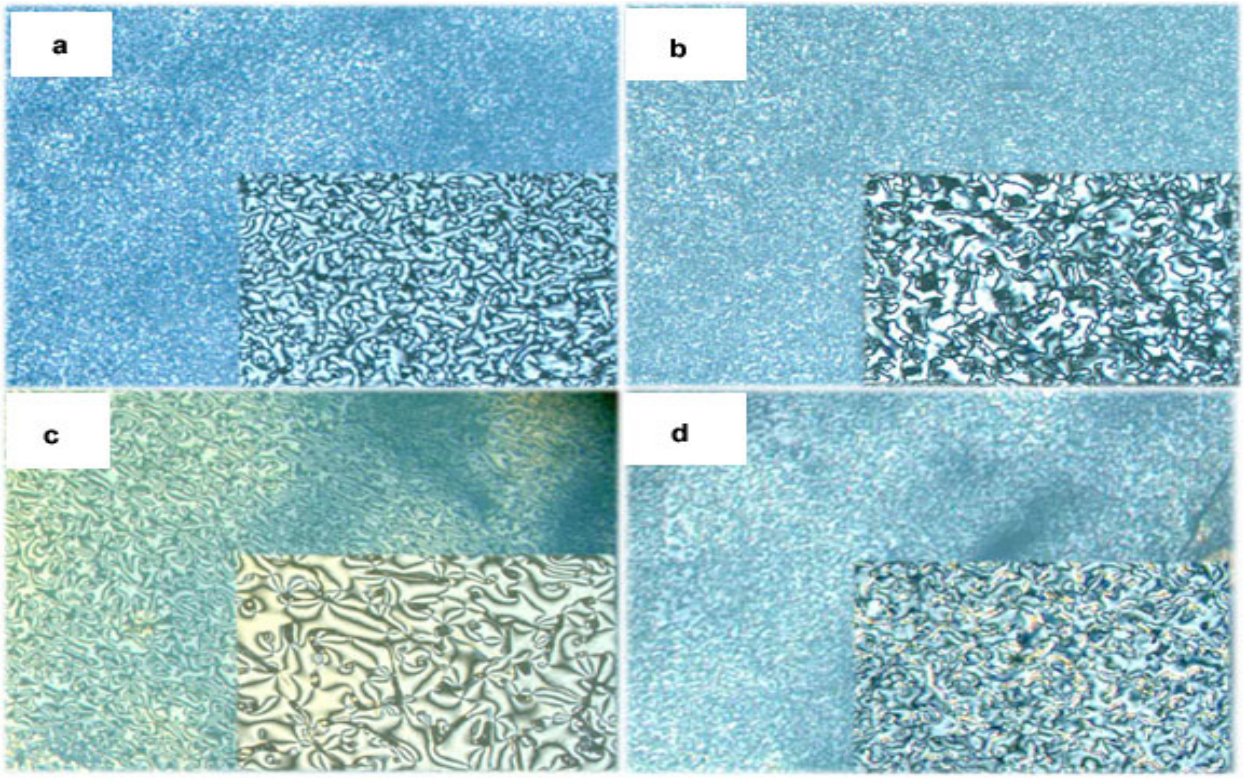
^{1}H NMR spectrum (acquired in $CDCl_3$ at 298 K on a Varian 200 MHz NMR spectrometer) of thymine terminated bis(phenylethynyl)-benzene core (**T-3b-T**). Chemical shifts are expressed in ppm.



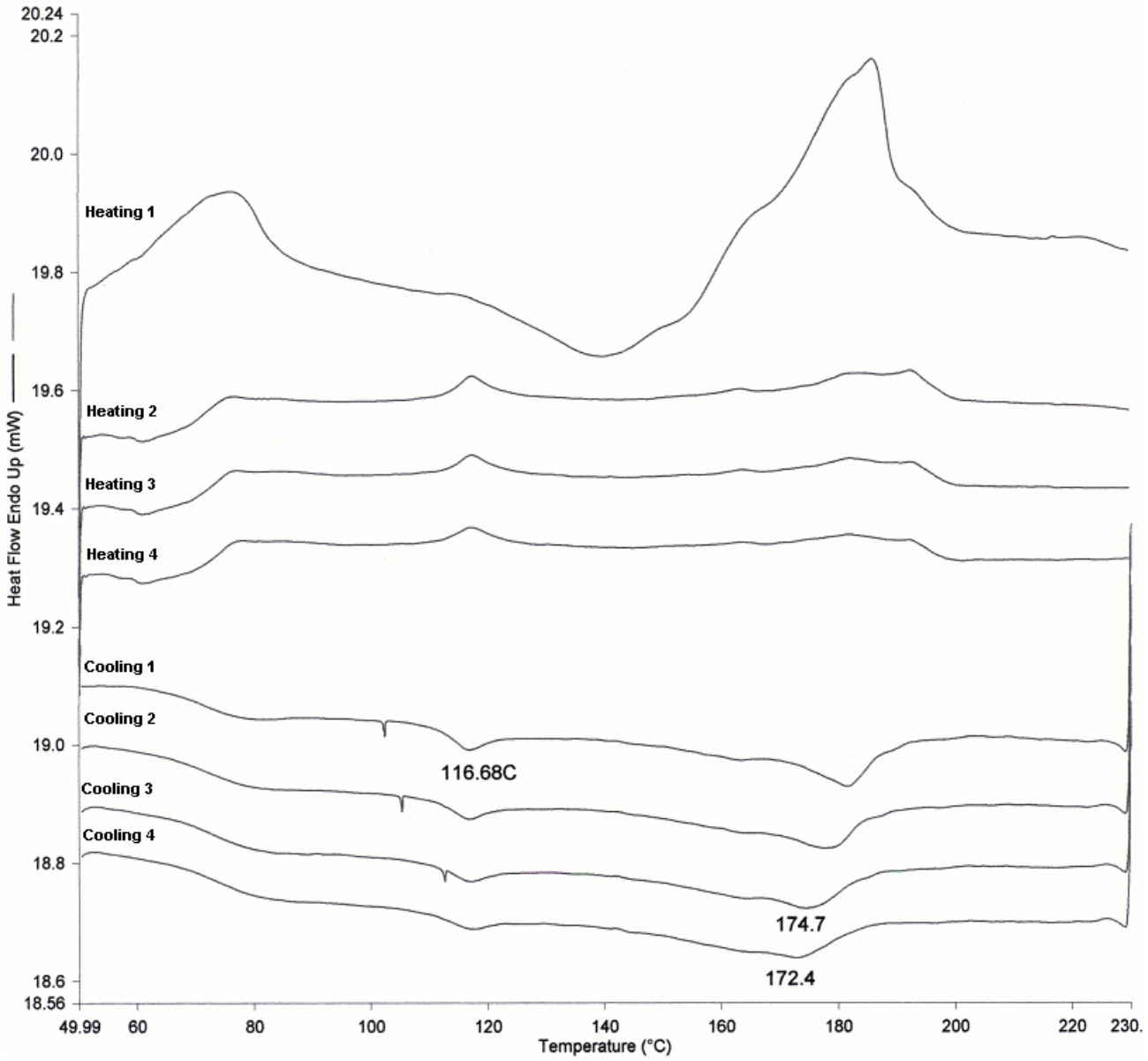
Photoluminescence spectra of solvent cast and annealed films of 1:1 molar mixture of **A^{An}-3a-A^{An}** + **T-3a-T** as well as the solvent cast and annealed films of the unsubstituted octyloxy-BPB core. Excitation wavelength = 330nm.



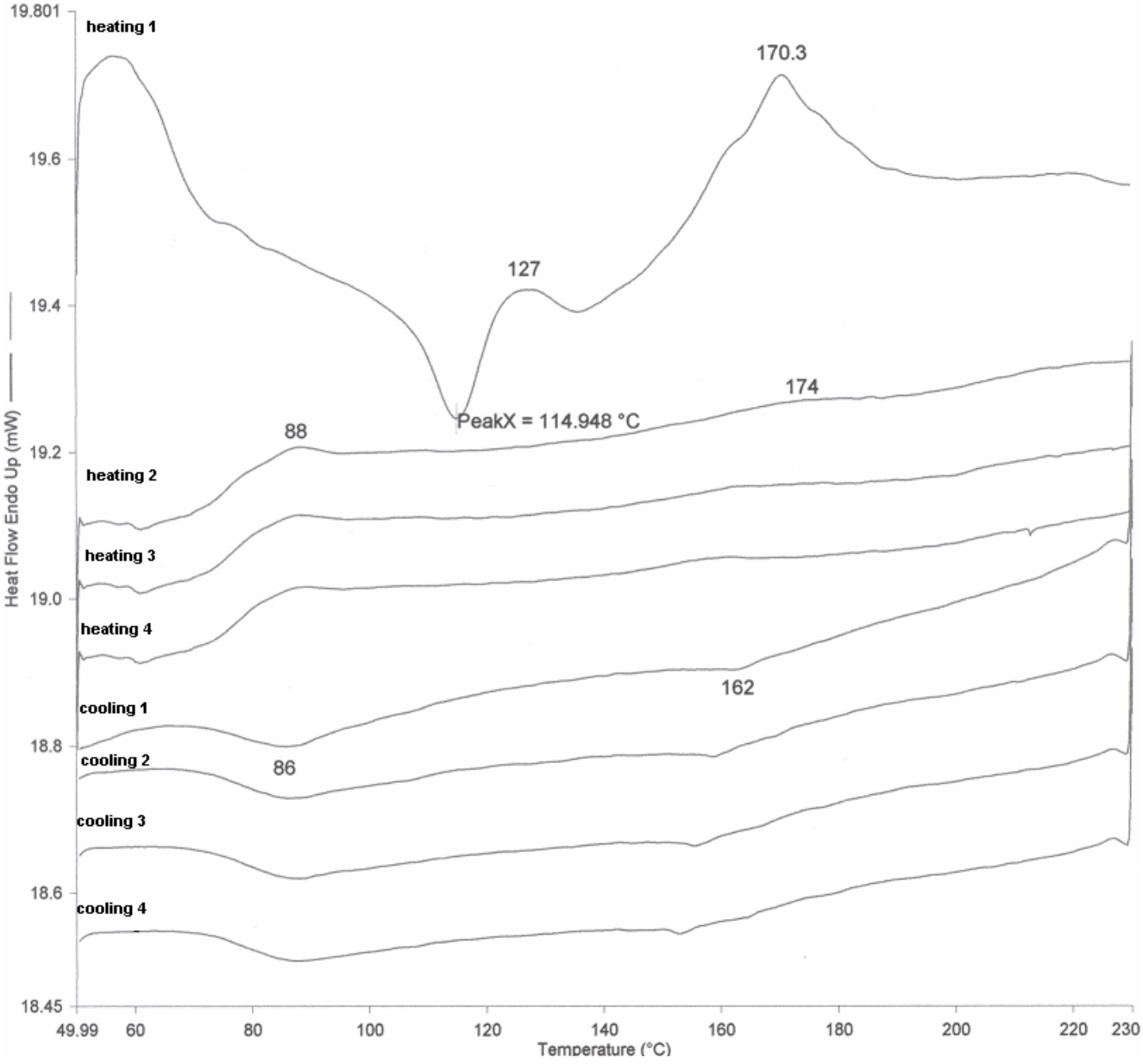
Photoluminescence spectra of annealed films of **A^{An}-3a-A^{An}**, **T-3a-T**, and the mixture of **A^{An}-3a-A^{An}** + **T-3a-T** in a 1:1 molar ratio. Excitation wavelength = 330nm.



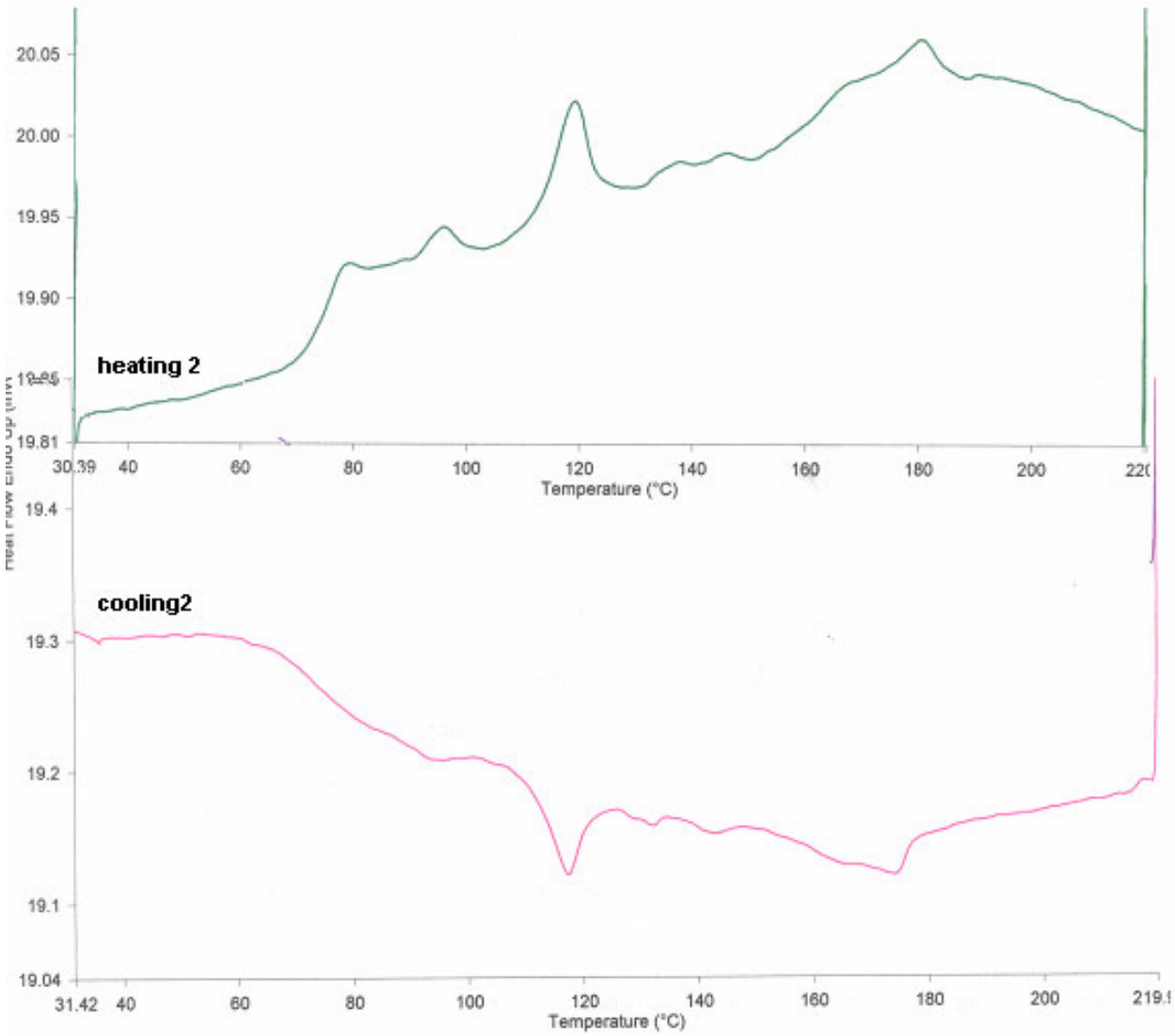
Optical micrographs of annealed films of mixtures of (a) **A^{An}-3a-A^{An}** + **T-3a-T** at 130ºC, (b) **A^{An}-3a-A^{An}** + **T-3b-T** at 160ºC, (c) **A^{An}-3b-A^{An}** + **T-3a-T** at 155ºC and (d) **A^{An}-3b-A^{An}** + **T-3a-T** at 120ºC in 1:1 molar ratios. The larger images are at 100X magnification with inset 500X magnification sections.



DSC thermogram of **T-3b-T** and $\mathbf{A^{An}}$**-3b-**$\mathbf{A^{An}}$.



DSC thermogram of **T-3a-T** and **A^{An}-3b-A^{An}**.



DSC thermogram of **T-3b-T** and $\mathbf{A^{An}}$**-3a-**$\mathbf{A^{An}}$.