

***Supporting Information:***

**Thermal Melting Studies of Alkyne and Ferrocene-containing PNA  
Bioconjugates**

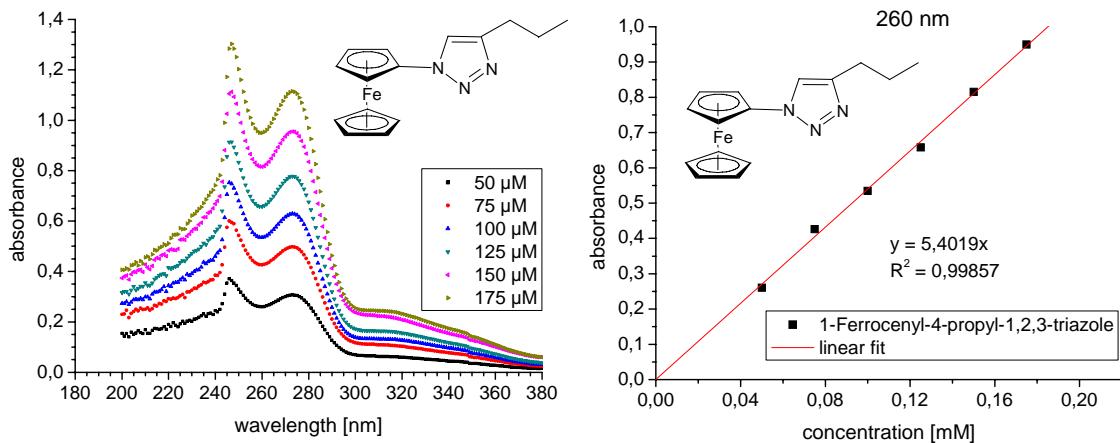
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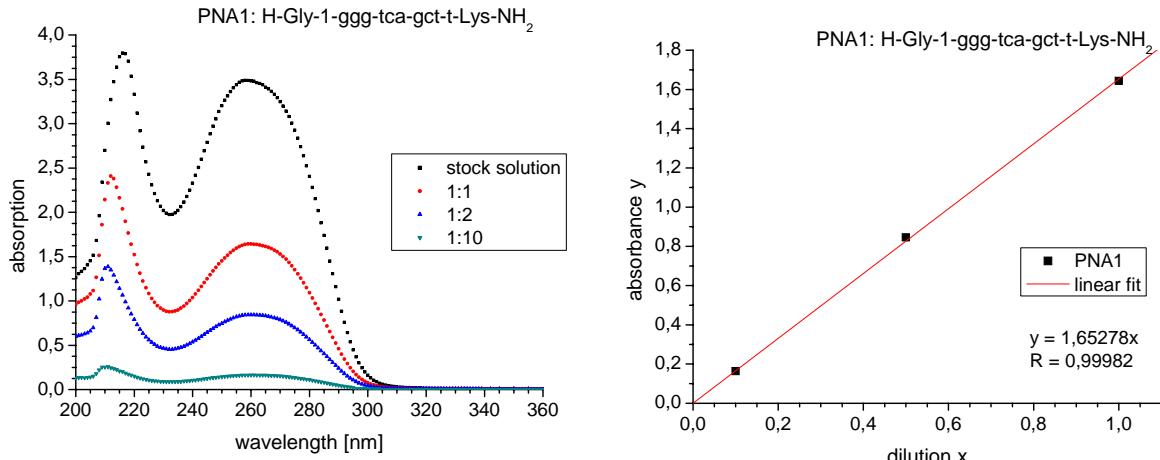
**Table of contents**

I. UV-Vis Spectra	
a) Figure 1: UV-Vis spectrum of <b>1-ferrocenyl-4-propyl-1,2,3-triazole</b>	2
b) Figure 2-5: UV-Vis spectrum of <b>alkyne-containing PNA</b>	2-3
c) Figure 6-9: UV-Vis spectrum of <b>ferrocene-containing PNA</b>	3-4
II. Melting Curves of alkyne and ferrocene-containing PNA-DNA hybrids	5-17
III. MALDI-MS Spectra	
a) Figure 49: MALDI-MS spectrum of dipeptide-containing PNA	18
b) Figure 50: MALDI-MS spectrum of propargylglycine-containing PNA	19
IV. CD spectra of alkyne and ferrocene-containing PNA-DNA hybrids	20

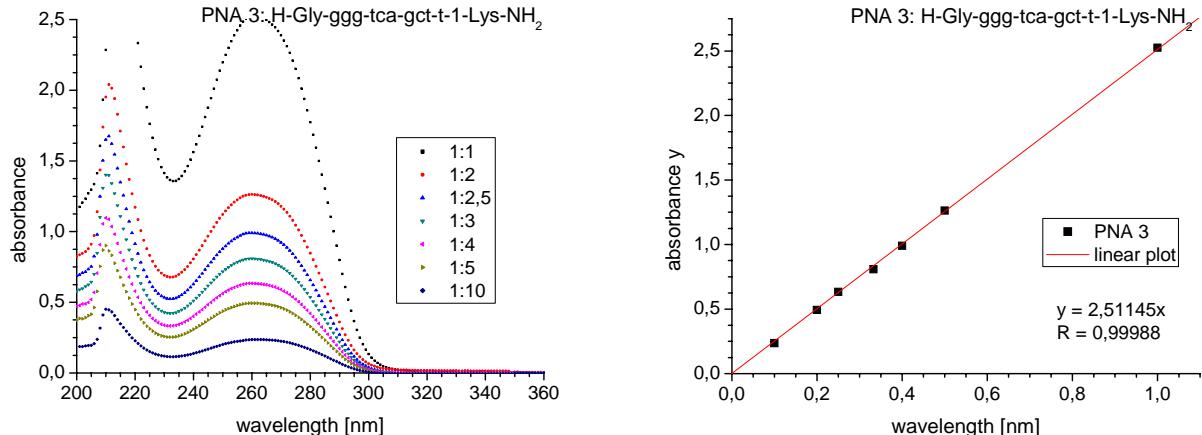
## I. UV-Vis spectra



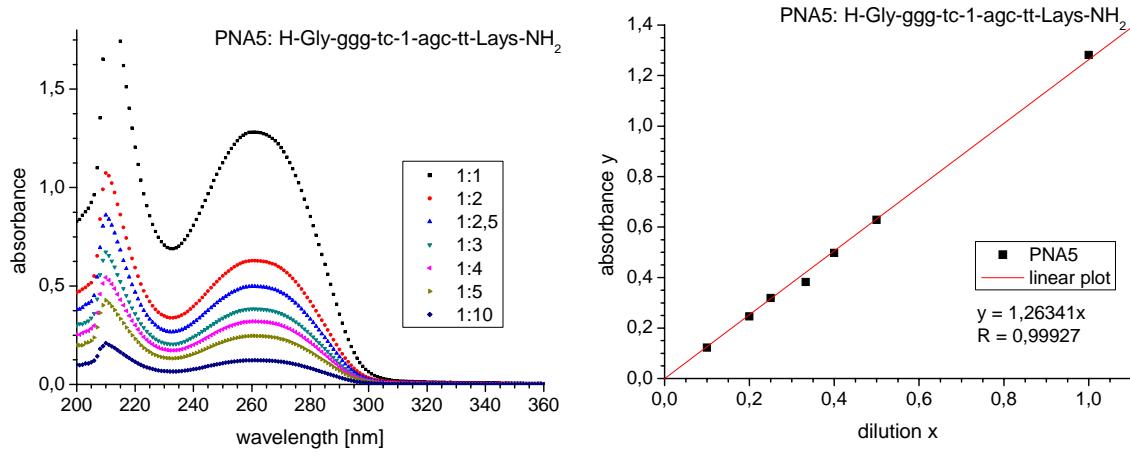
**Figure 1.** UV/Vis spectrum of **1-ferrocenyl-4-propyl-1,2,3-triazole** (left) and linear plot of the absorbance at 260 nm against the concentration.



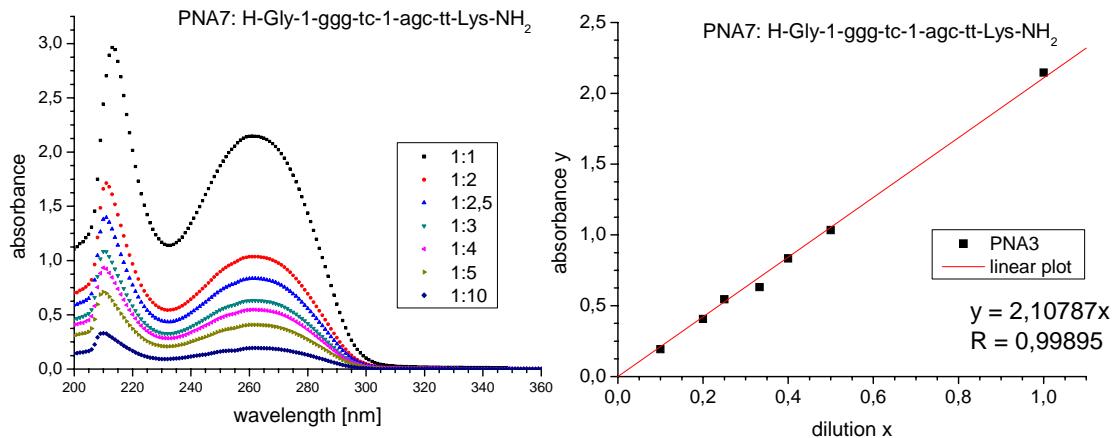
**Figure 2.** UV/Vis spectrum of **PNA1** (left) and linear plot of the absorbance at 260 nm against the dilution (right) (**1**, PNA alkyne monomer).



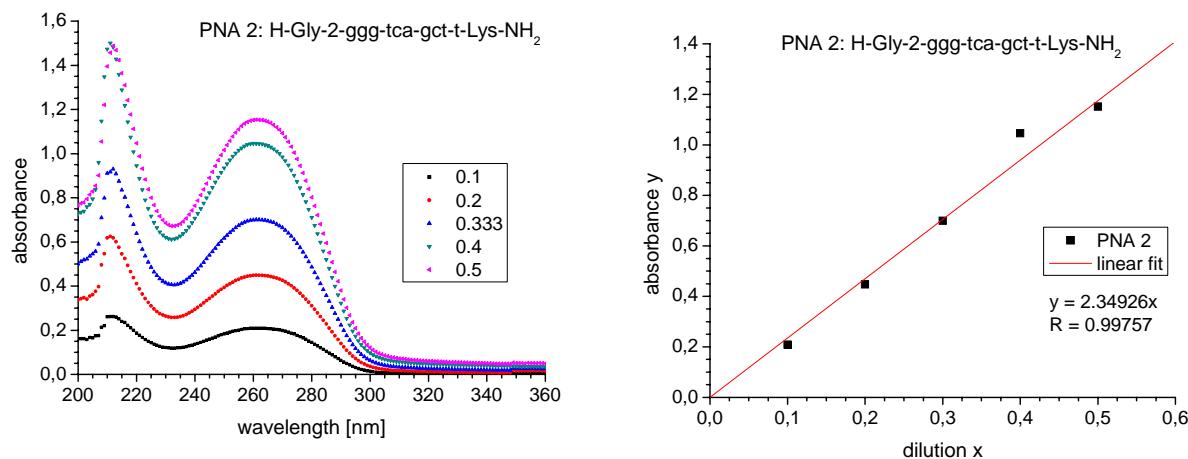
**Figure 3.** UV/Vis spectrum of **PNA3** (left) and linear plot of the absorbance at 260 nm against the dilution (right) (**1**, PNA alkyne monomer).



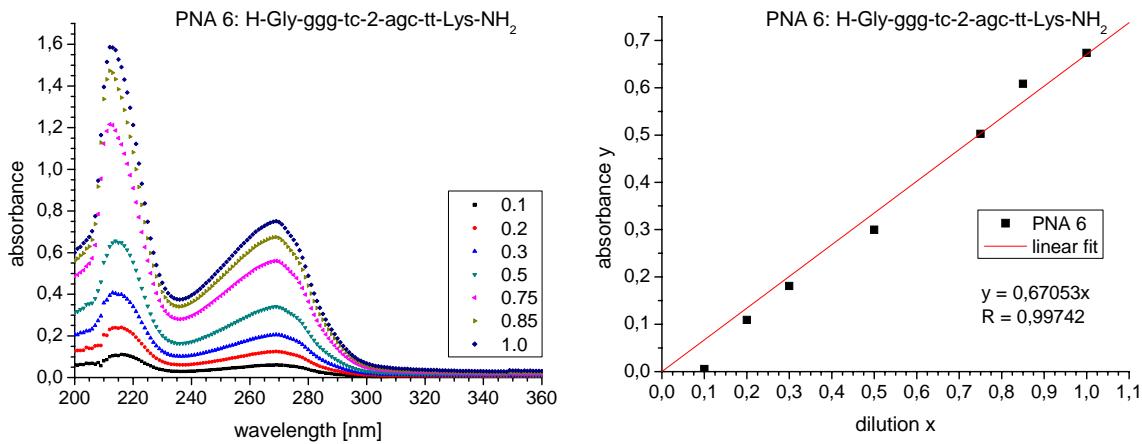
**Figure 4.** UV/Vis spectrum of **PNA5** (left) and linear plot of the absorbance at 260 nm against the dilution (right) (**1**, PNA alkyne monomer).



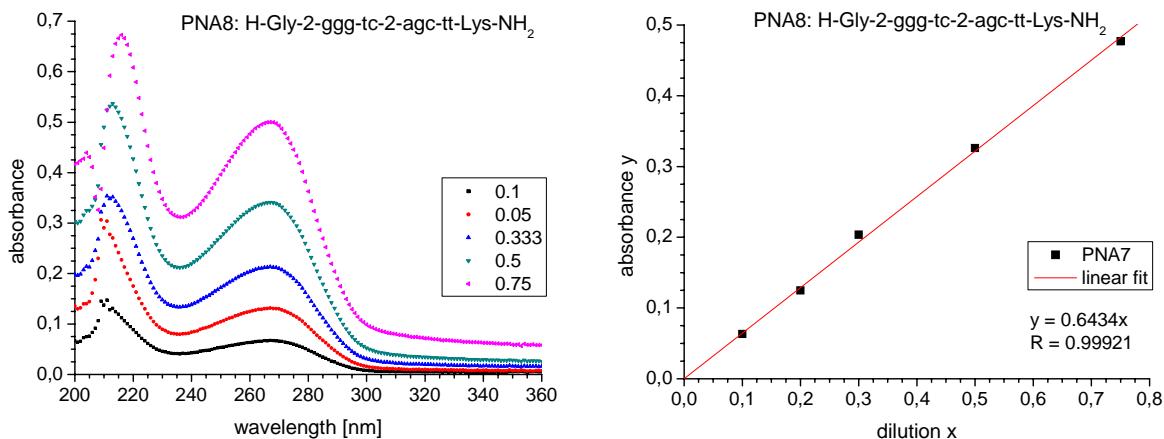
**Figure 5.** UV/Vis spectrum of **PNA7** (left) and linear plot of the absorbance at 260 nm against the dilution (right) (**1**, PNA alkyne monomer).



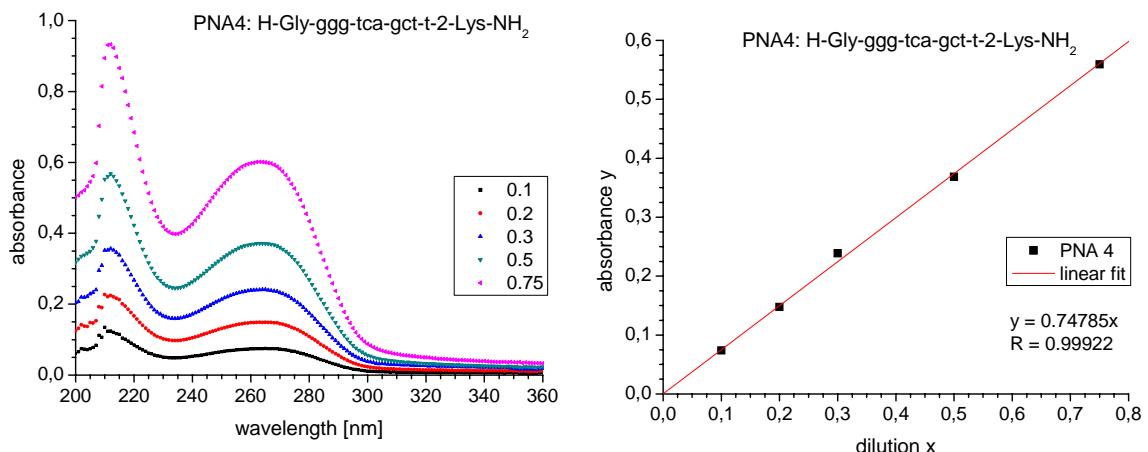
**Figure 6.** UV/Vis spectrum of **PNA2** (left), linear plot of the absorbance at 260 nm against the dilution (right) (**2**, PNA ferrocene monomer).



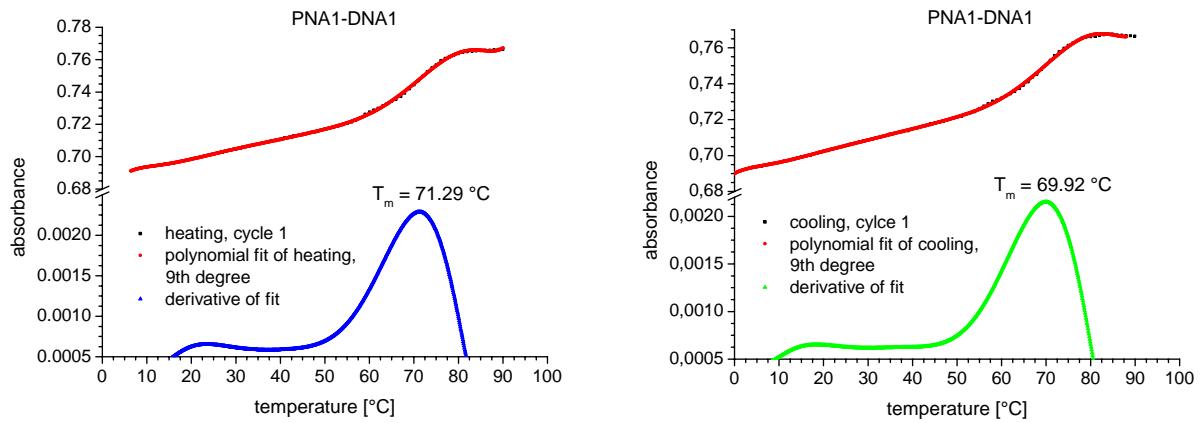
**Figure 7.** UV/Vis spectrum of **PNA6** (left) and linear plot of the absorbance at 260 nm against the dilution (right) (**2**, PNA ferrocene monomer).



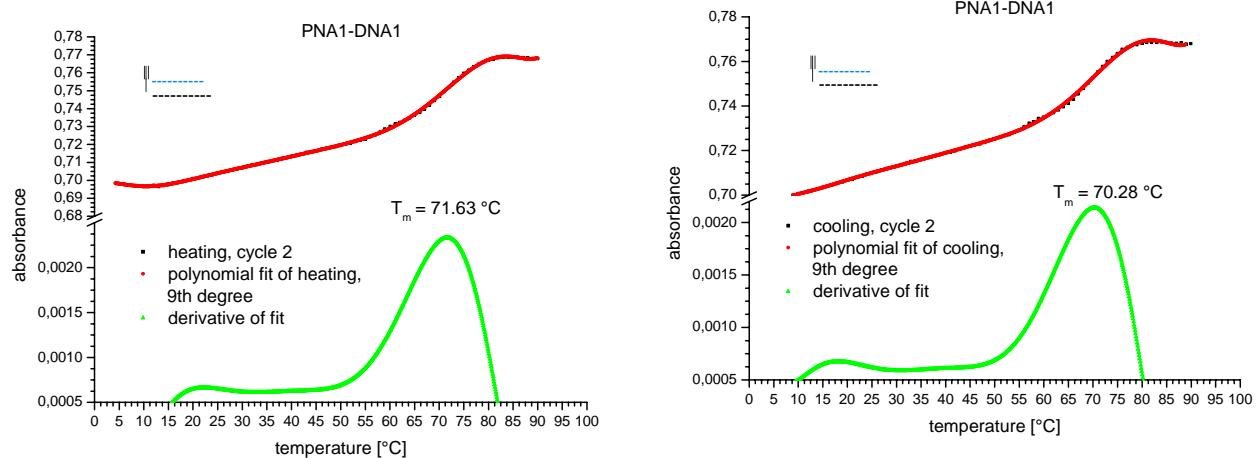
**Figure 8.** UV/Vis spectrum of **PNA8** (left) and linear plot of the absorbance at 260 nm against the dilution (right) (**2**, PNA ferrocene monomer).



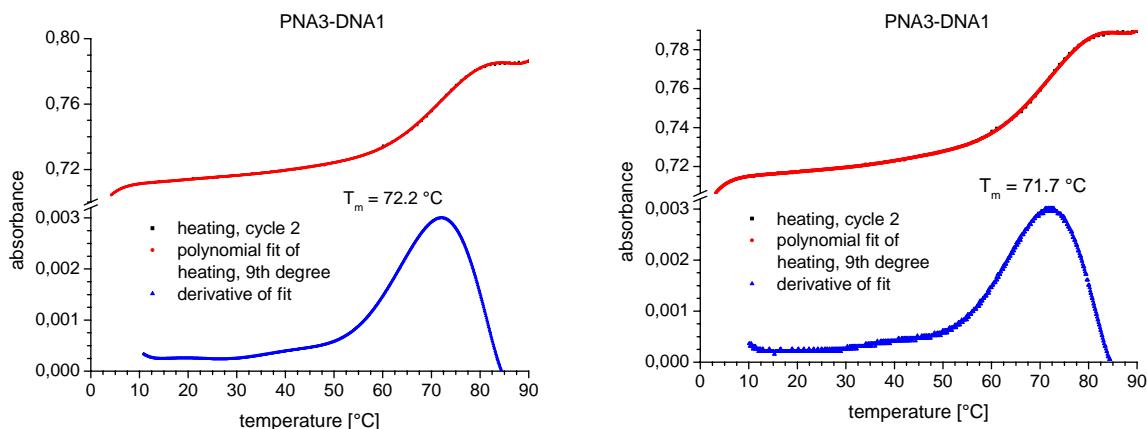
**Figure 9.** UV/Vis spectrum of **PNA4** (left) and linear plot of the absorbance at 260 nm against the dilution (right) (**2**, PNA ferrocene monomer).



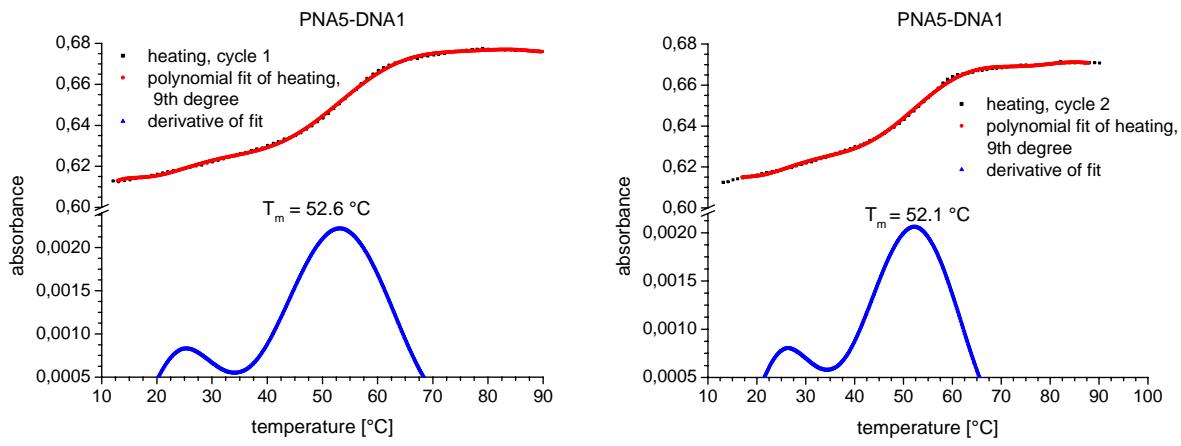
**Figure 10.** PNA1-DNA1: polynomial fits of the heating (left) and cooling (right) curve of 9th degree (red) and its derivatives (blue) with local maxima as the melting temperatures  $T_m$  in cycle 1.



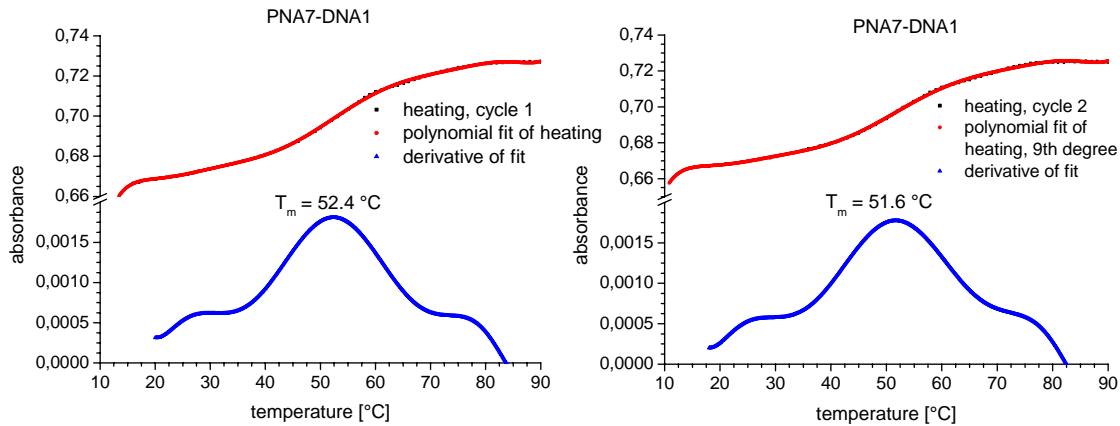
**Figure 11.** PNA1-DNA1: polynomial fits of the heating (left) and cooling (right) curve of 9th degree (red) and its derivatives (blue) with local maxima as the melting temperatures  $T_m$  in cycle 2.



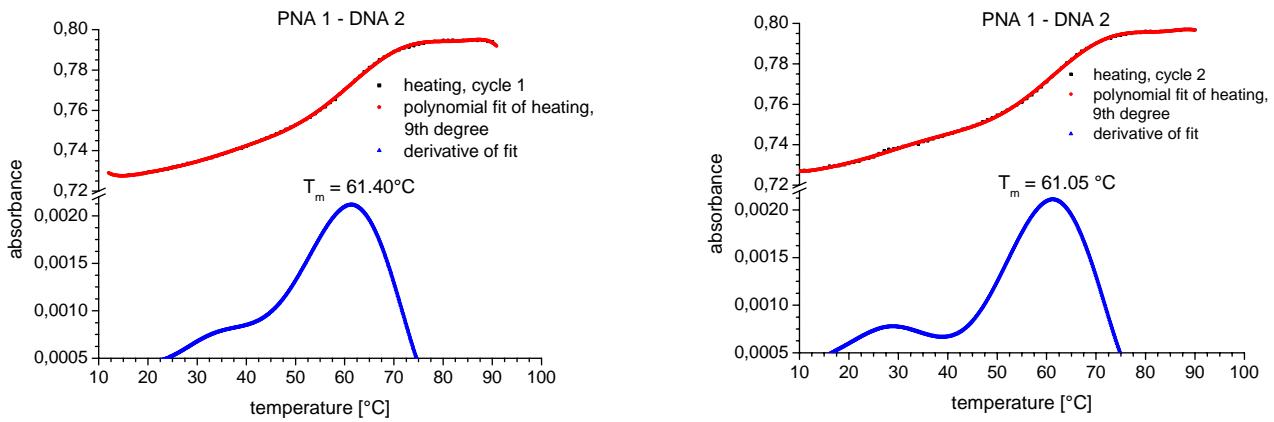
**Figure 12.** UV/Vis melting spectrum of PNA3-DNA1.



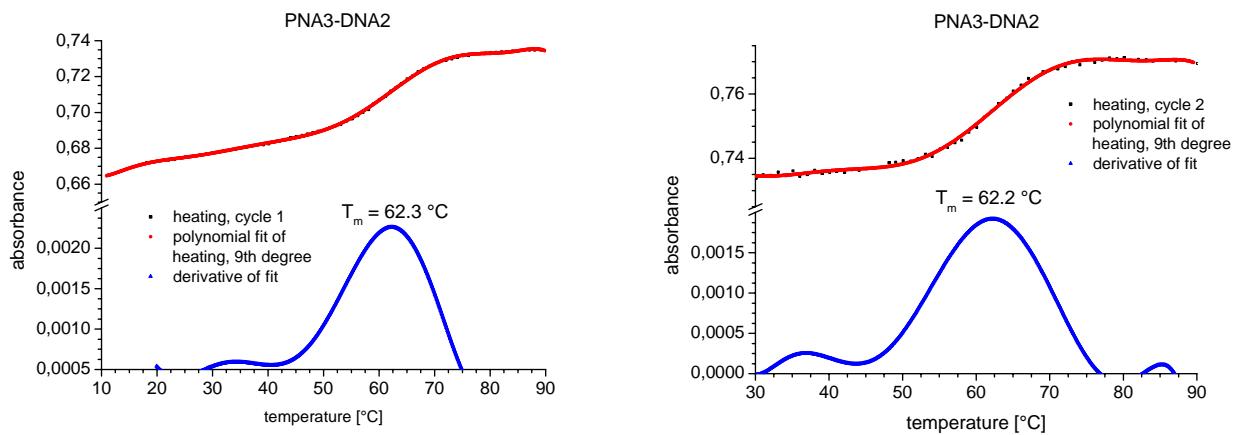
**Figure 13.** UV/Vis melting spectrum of **PNA5-DNA1**.



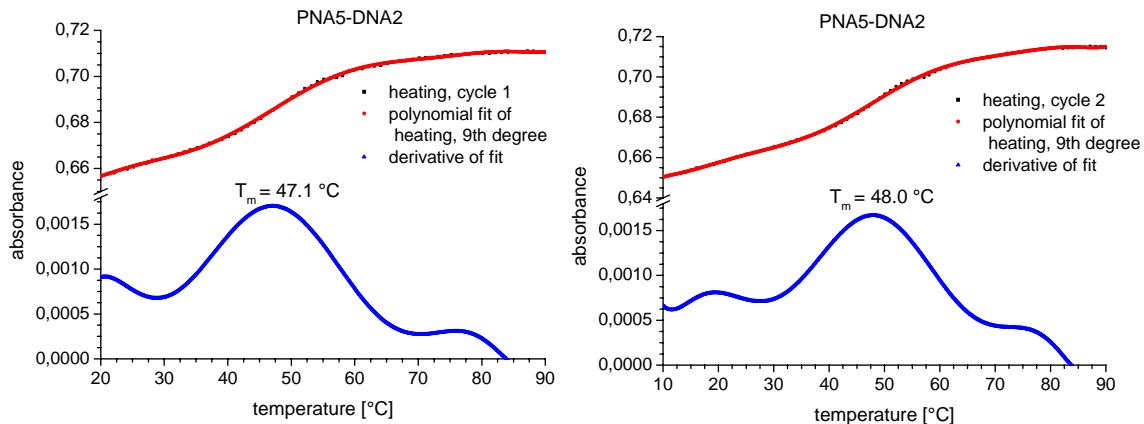
**Figure 14.** UV/Vis melting spectrum of **PNA7-DNA1**.



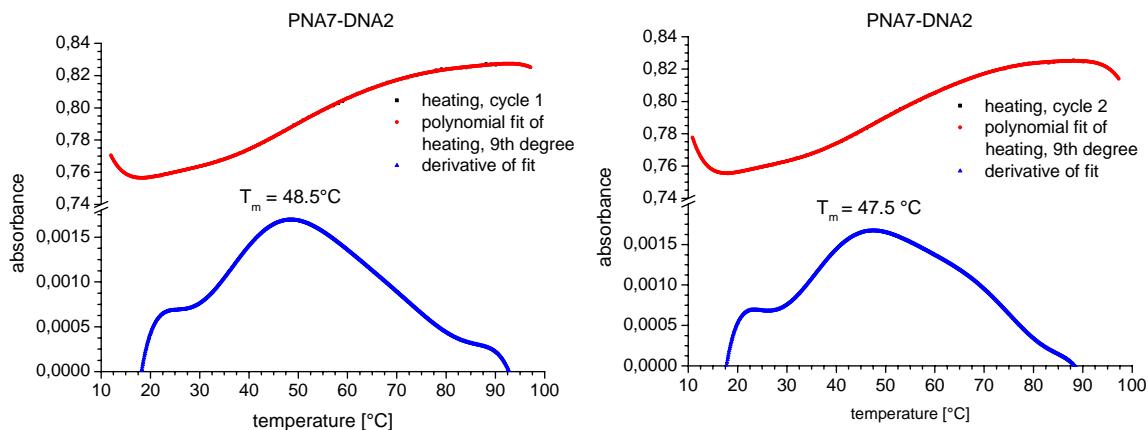
**Figure 15.** UV/Vis melting spectrum of **PNA1-DNA2**.



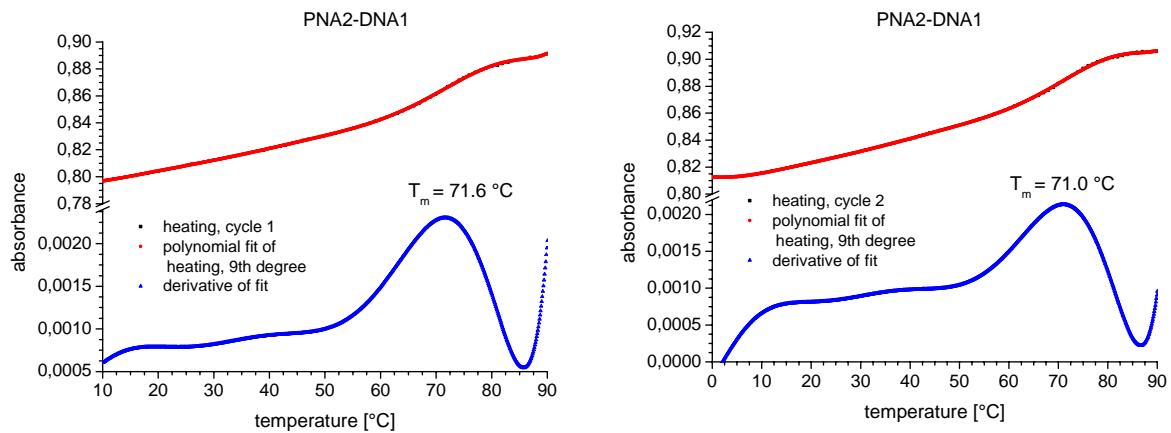
**Figure 16.** UV/Vis melting spectrum of **PNA3-DNA2**.



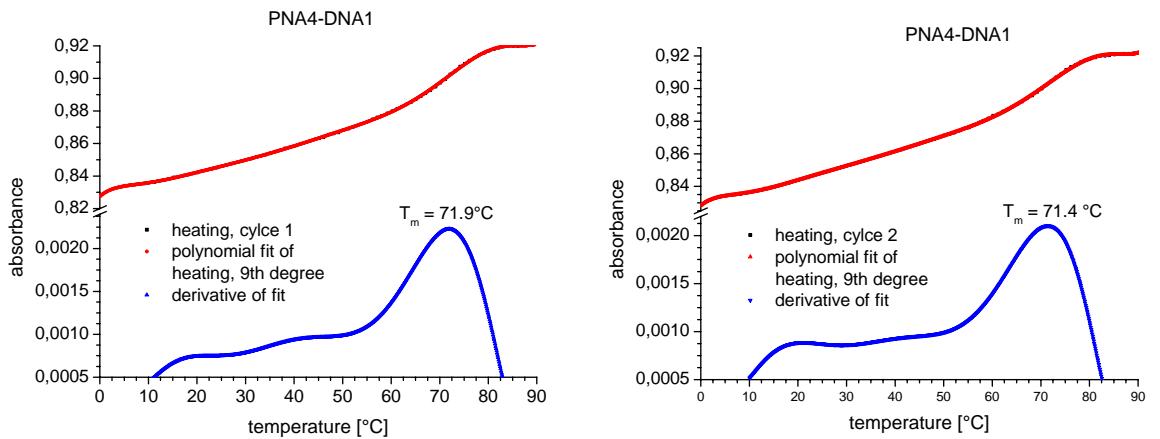
**Figure 17.** UV/Vis melting spectrum of **PNA5-DNA2**.



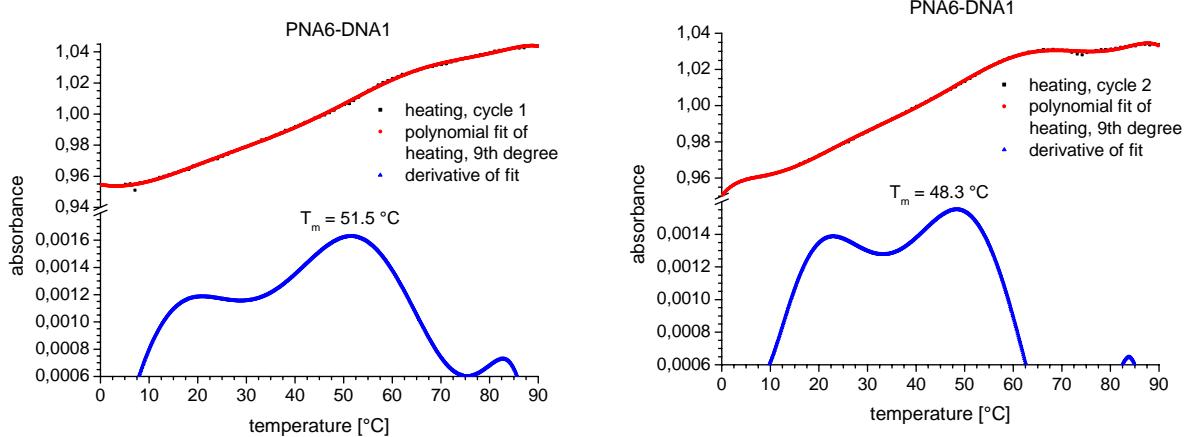
**Figure 18.** UV/Vis melting spectrum of **PNA7-DNA2**.



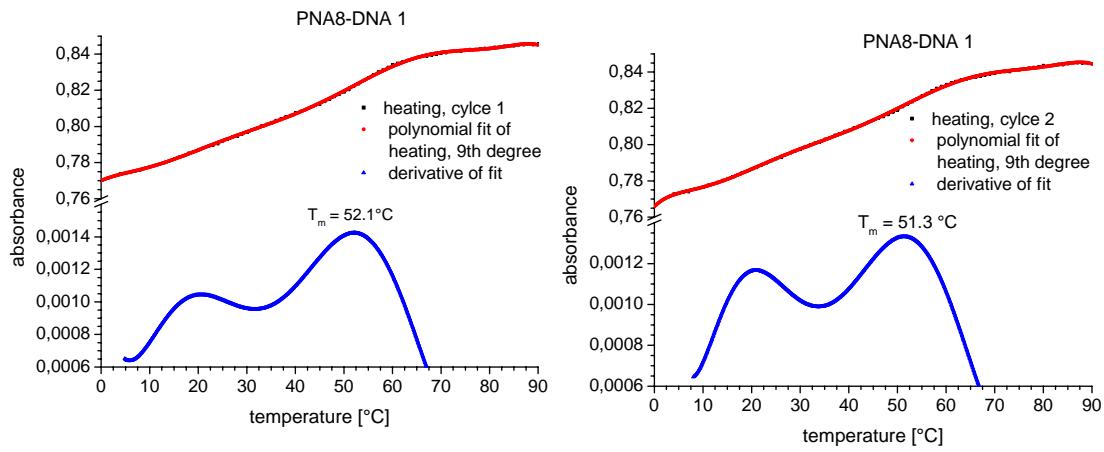
**Figure 19.** UV/Vis melting spectrum of **PNA2** and **DNA1**.



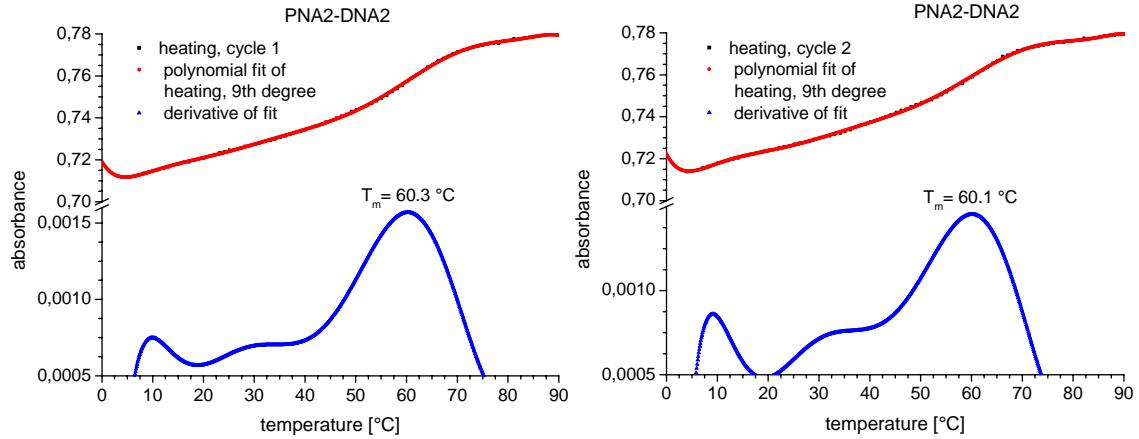
**Figure 20.** UV/Vis melting spectrum of **PNA4** and **DNA1**.



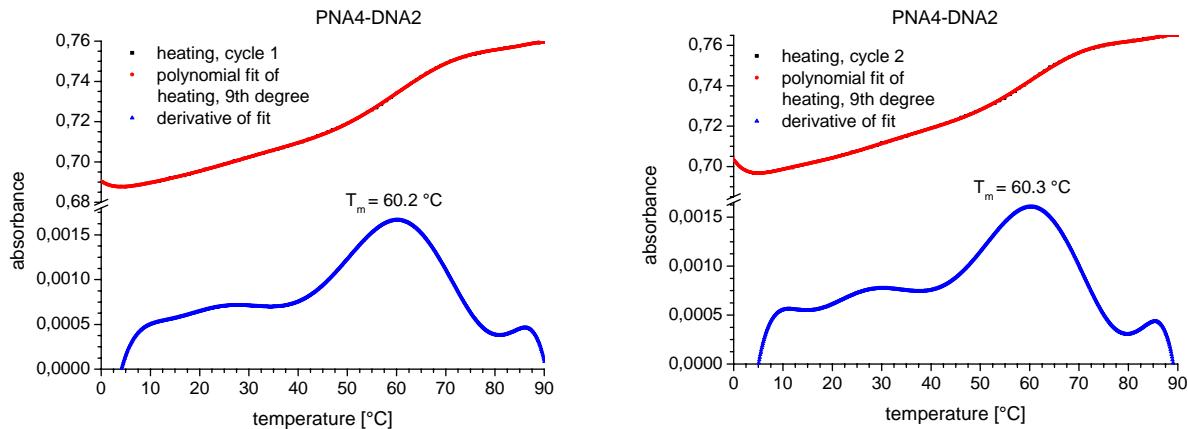
**Figure 21.** UV/Vis melting spectrum of **PNA6** and **DNA1**.



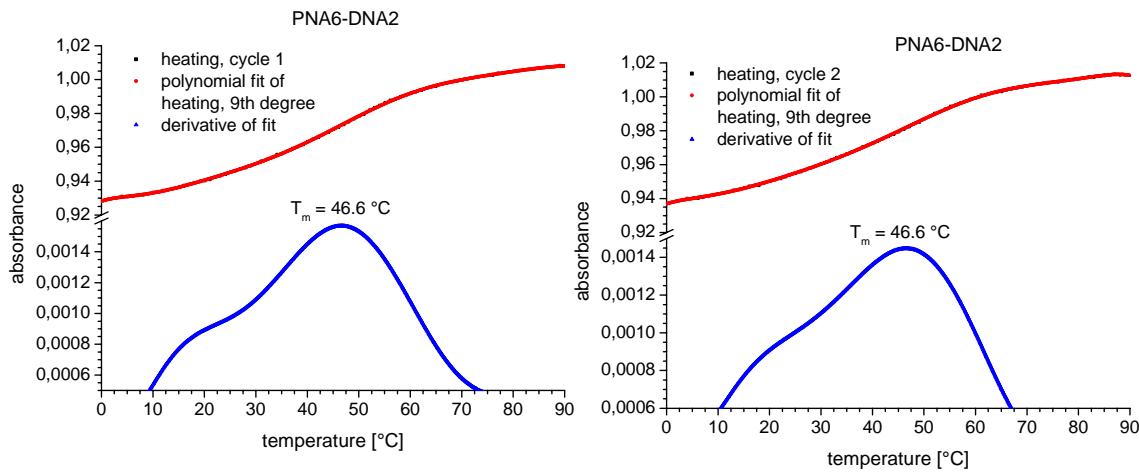
**Figure 22.** UV/Vis melting spectrum of **PNA8** and **DNA1**.



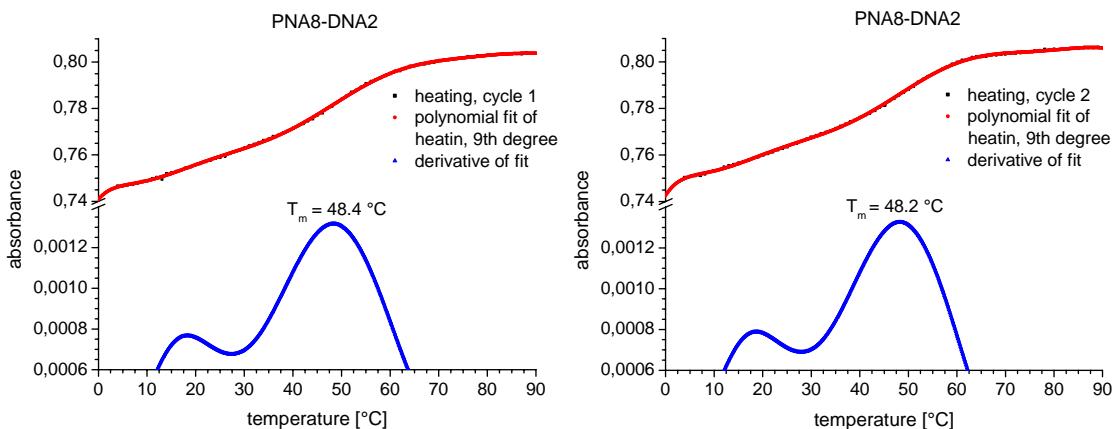
**Figure 23.** UV/Vis melting spectrum of **PNA2** and **DNA2**.



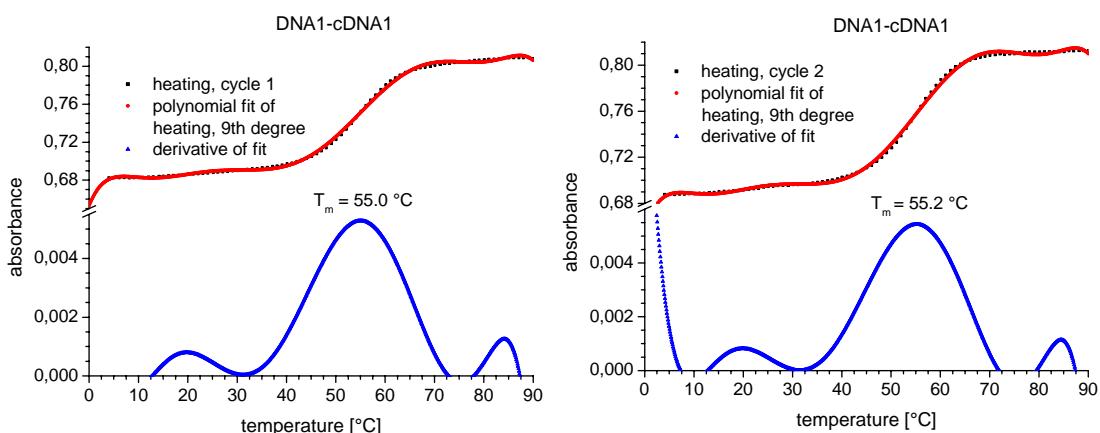
**Figure 24.** UV/Vis melting spectrum of **PNA4** and **DNA2**.



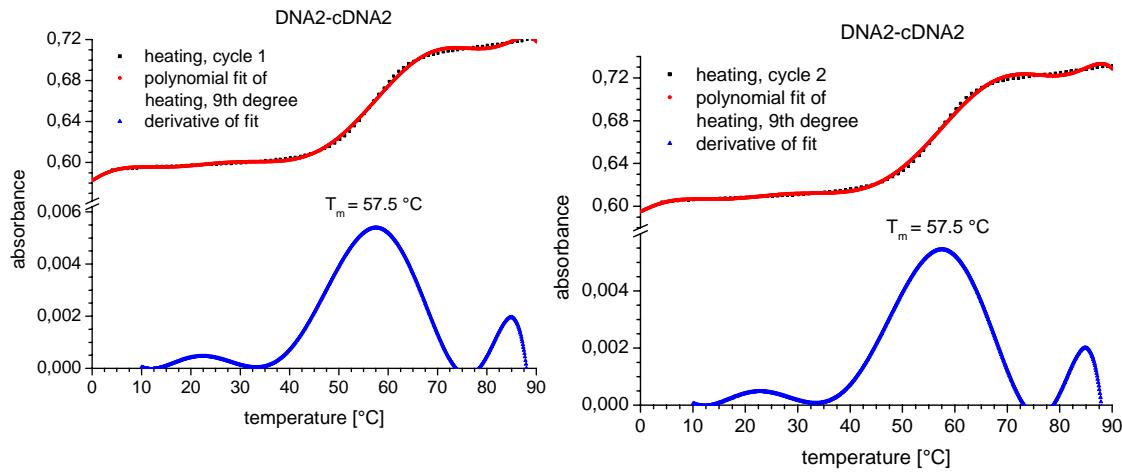
**Figure 25.** UV/Vis melting spectrum of **PNA6** and **DNA2**.



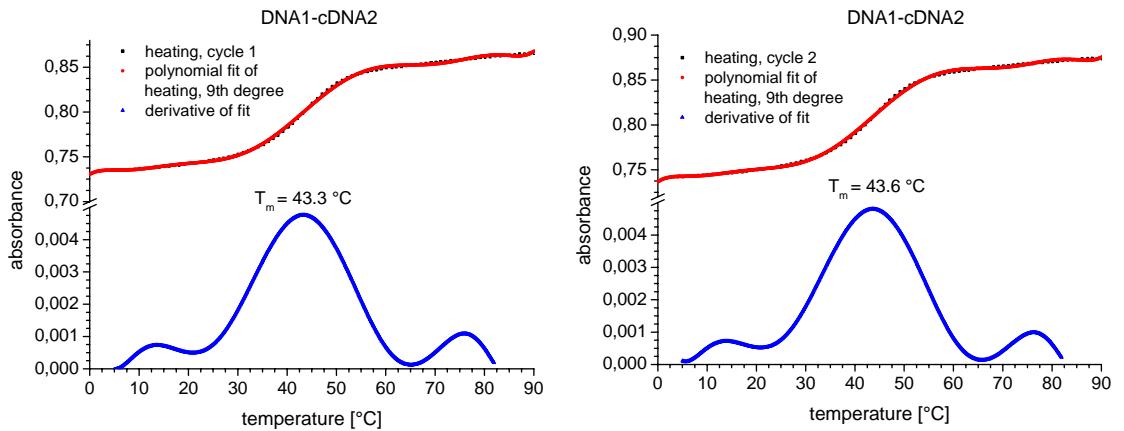
**Figure 26.** UV/Vis melting spectrum of **PNA8** and **DNA2**.



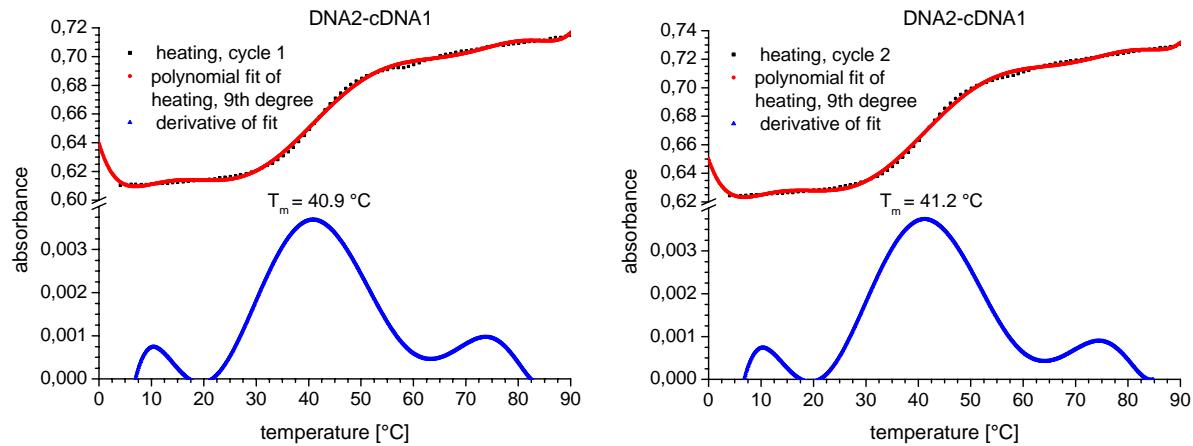
**Figure 27.** UV/Vis melting spectrum of **DNA1-cDNA1**.



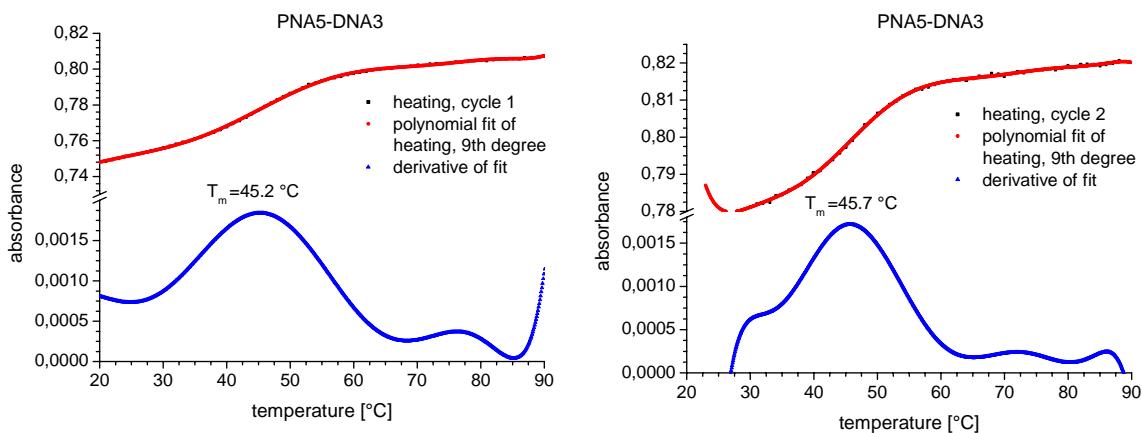
**Figure 28.** UV/Vis melting spectrum of **DNA2-cDNA2**.



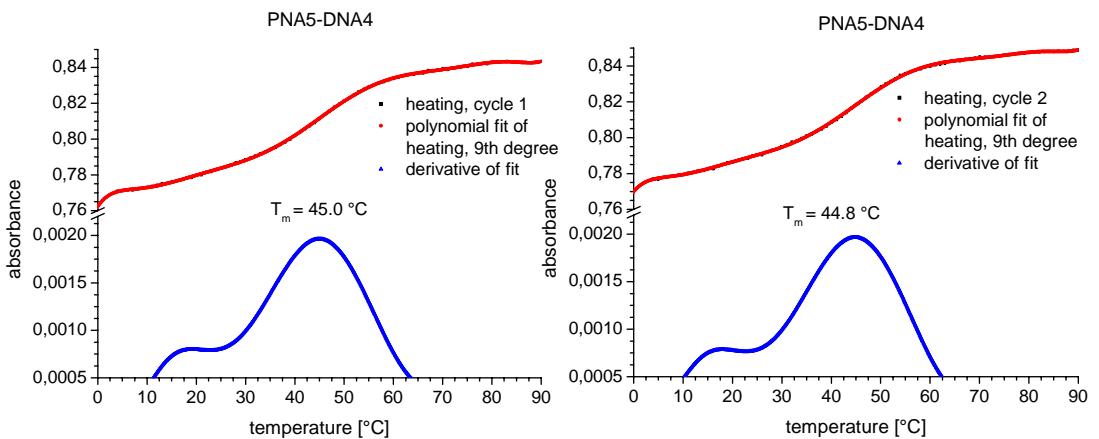
**Figure 29.** UV/Vis melting spectrum of **DNA1-cDNA2**.



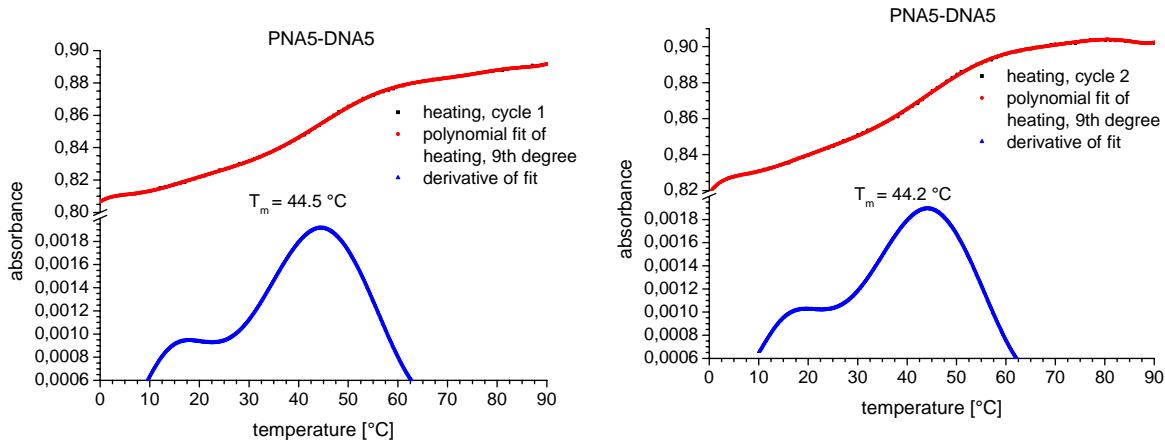
**Figure 30.** UV/Vis melting spectrum of **DNA2-cDNA1**.



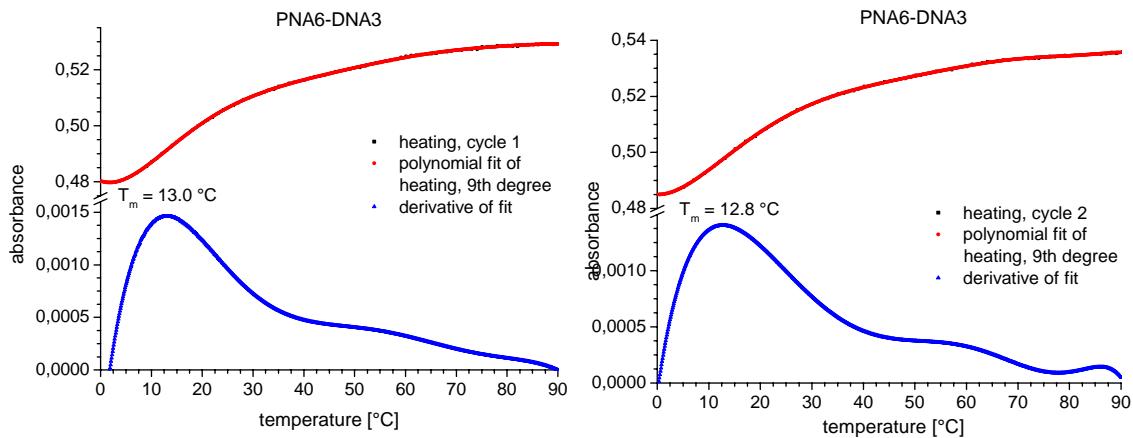
**Figure 31.** UV/Vis melting spectrum of **PNA5-DNA3**.



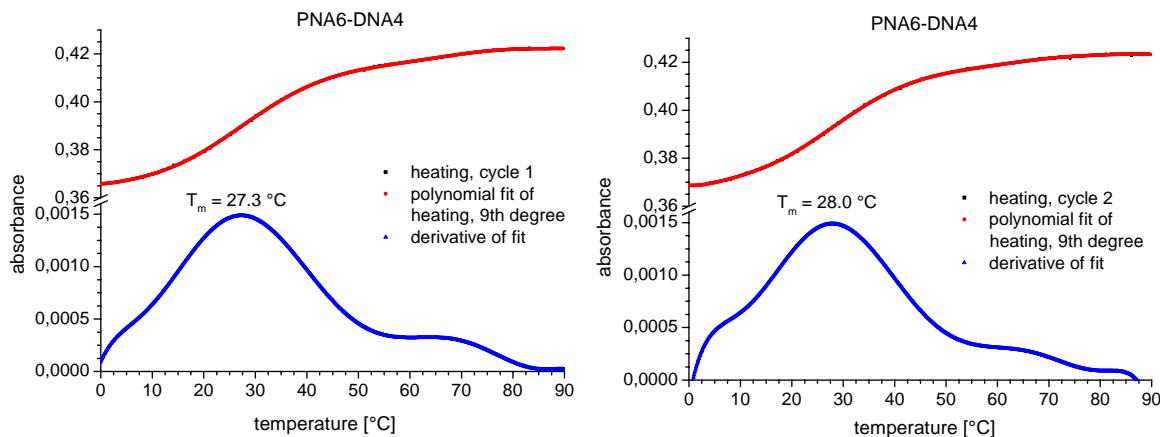
**Figure 32.** UV/Vis melting spectrum of **PNA5-DNA4**.



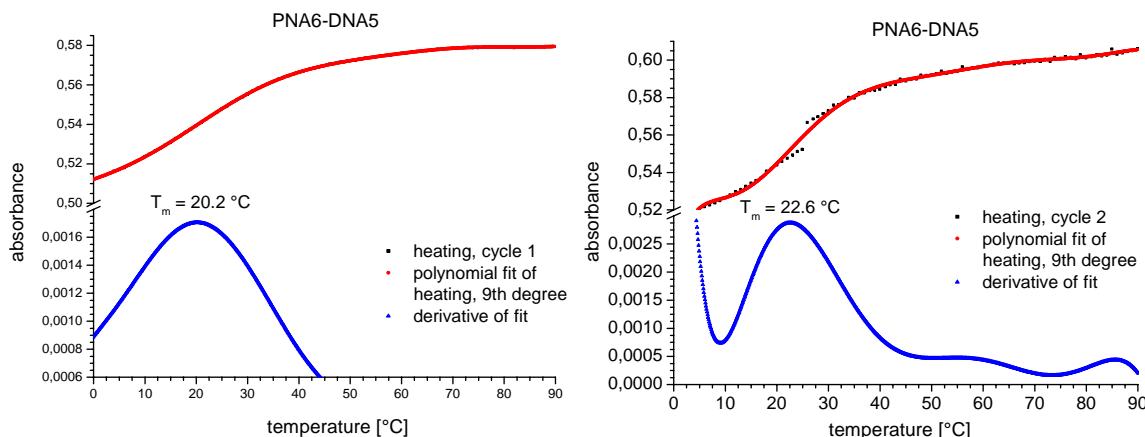
**Figure 33.** UV/Vis melting spectrum of **PNA5-DNA5**.



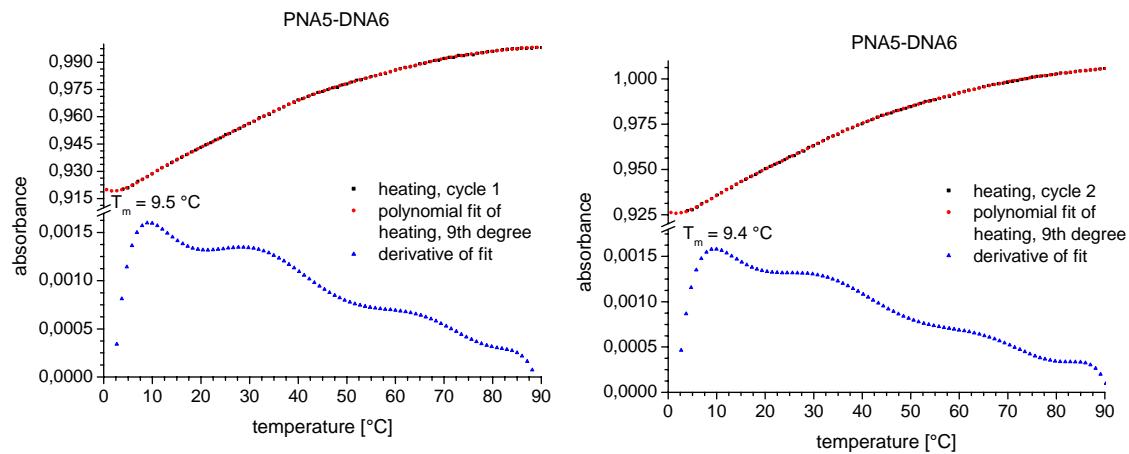
**Figure 34.** UV/Vis melting spectrum of **PNA6-DNA3**.



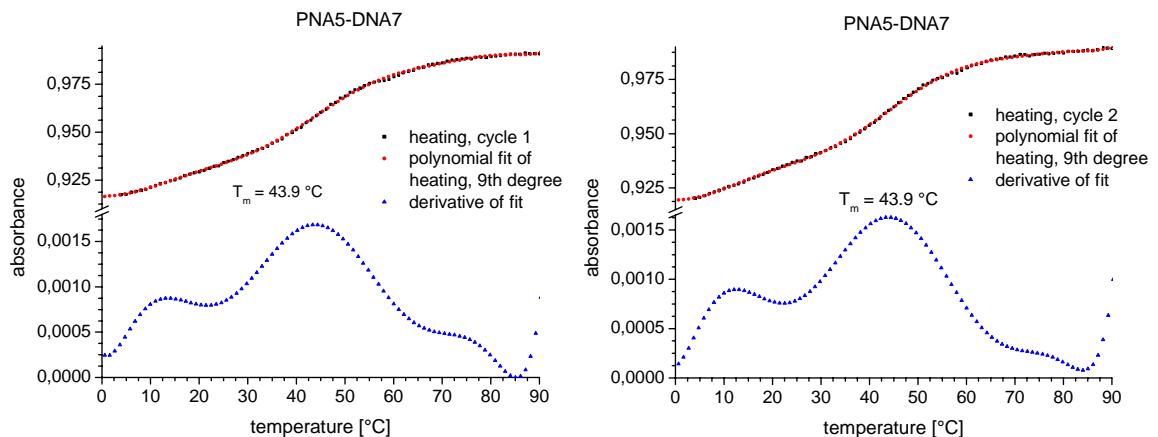
**Figure 35.** UV/Vis melting spectrum of **PNA6-DNA4**.



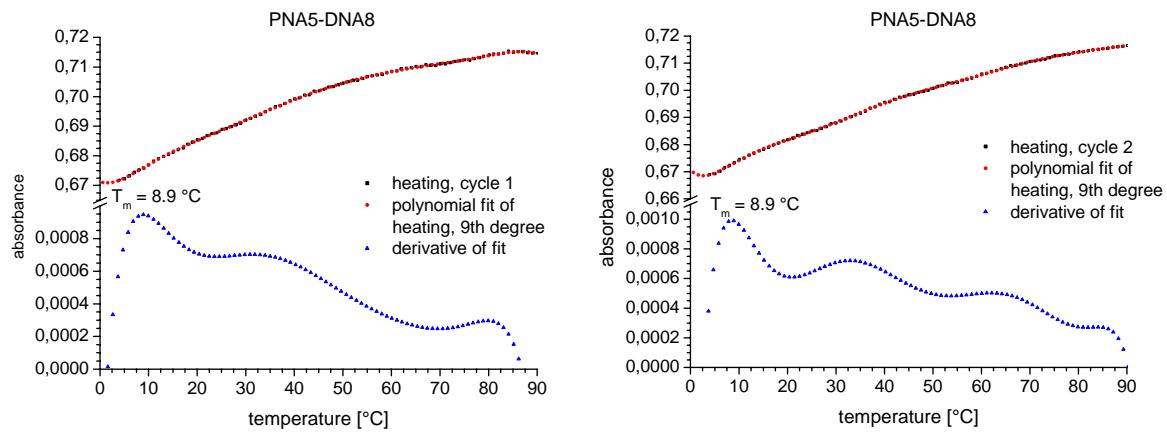
**Figure 36.** UV/Vis melting spectrum of **PNA6-DNA5**.



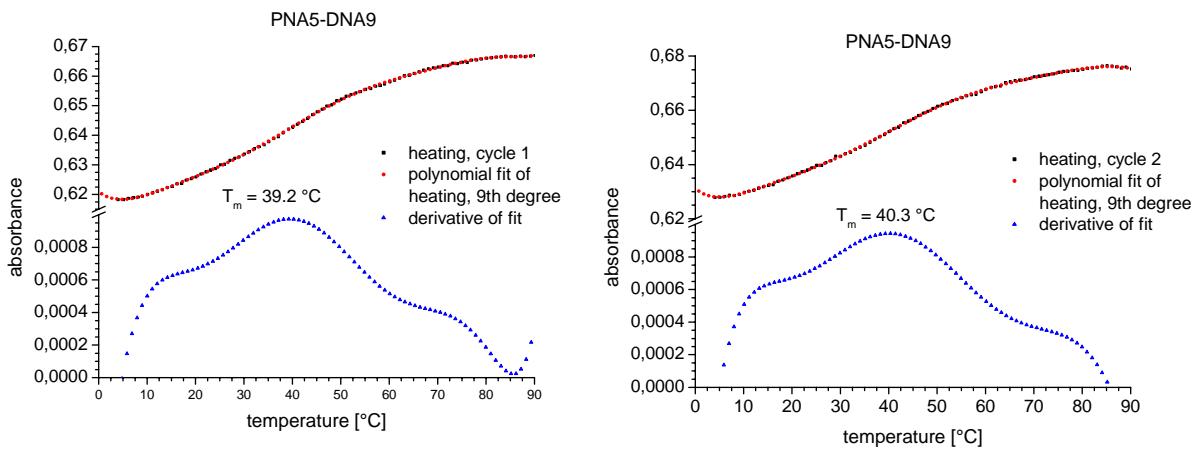
**Figure 37.** UV/Vis melting spectrum of **PNA5-DNA6**.



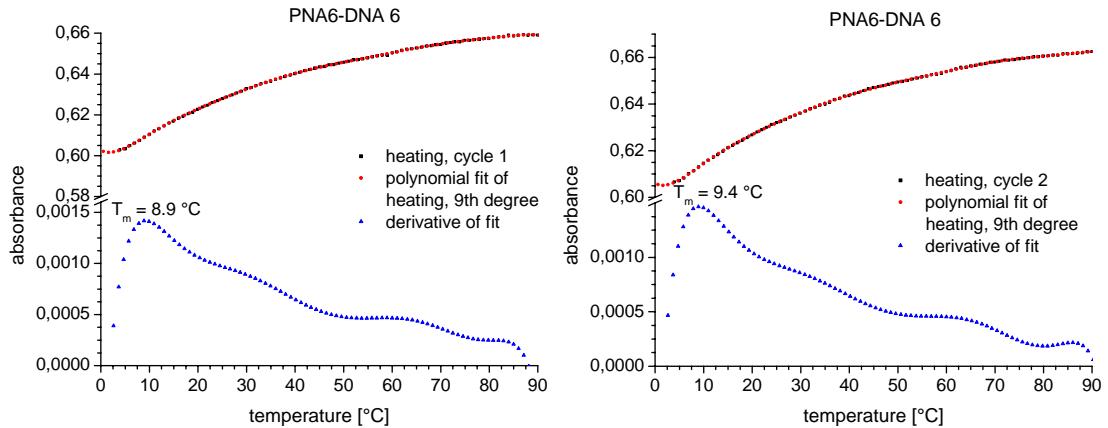
**Figure 38.** UV/Vis melting spectrum of **PNA5-DNA7**.



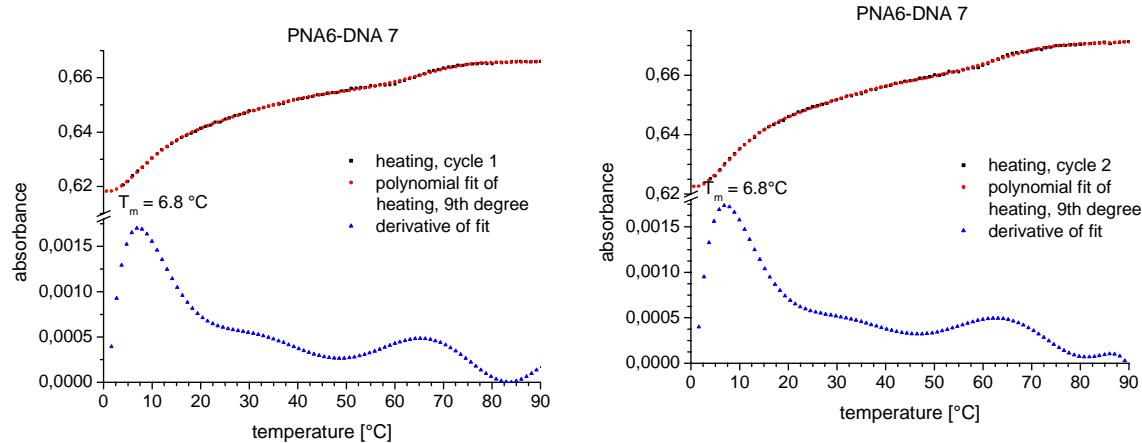
**Figure 39.** UV/Vis melting spectrum of **PNA5-DNA8**.



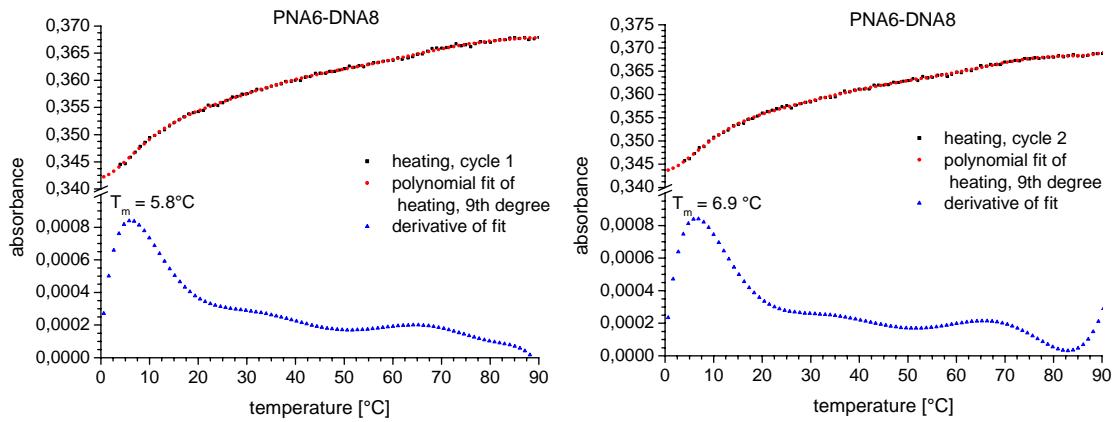
**Figure 40.** UV/Vis melting spectrum of **PNA5-DNA9**.



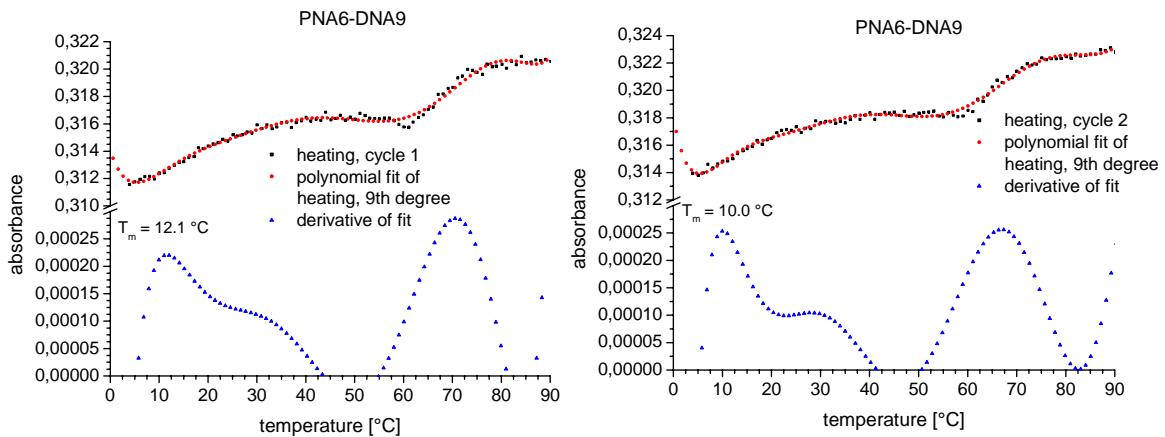
**Figure 41.** UV/Vis melting spectrum of **PNA6-DNA6**.



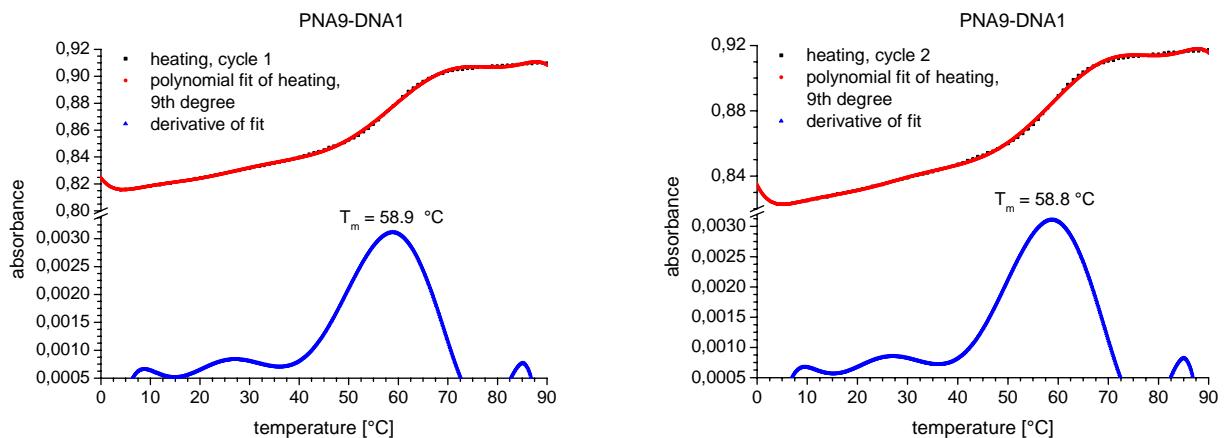
**Figure 42.** UV/Vis melting spectrum of **PNA6-DNA7**.



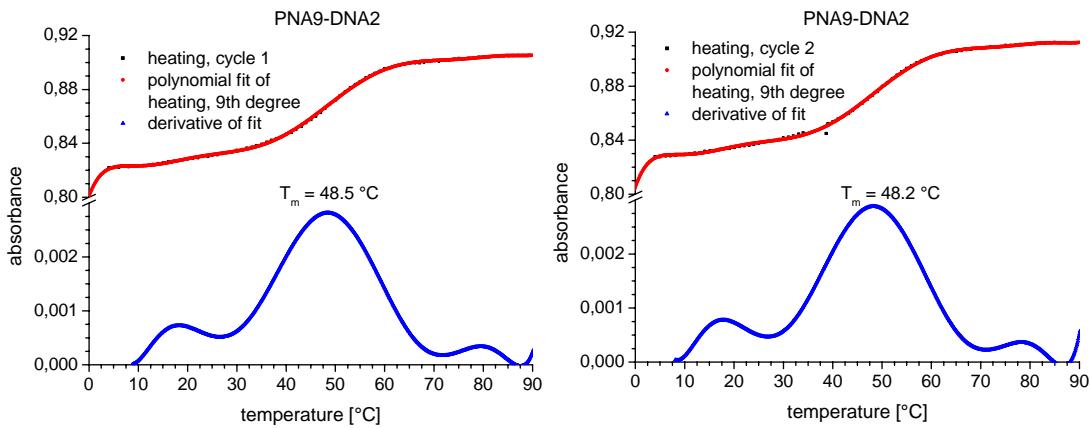
**Figure 43.** UV/Vis melting spectrum of **PNA6-DNA8**.



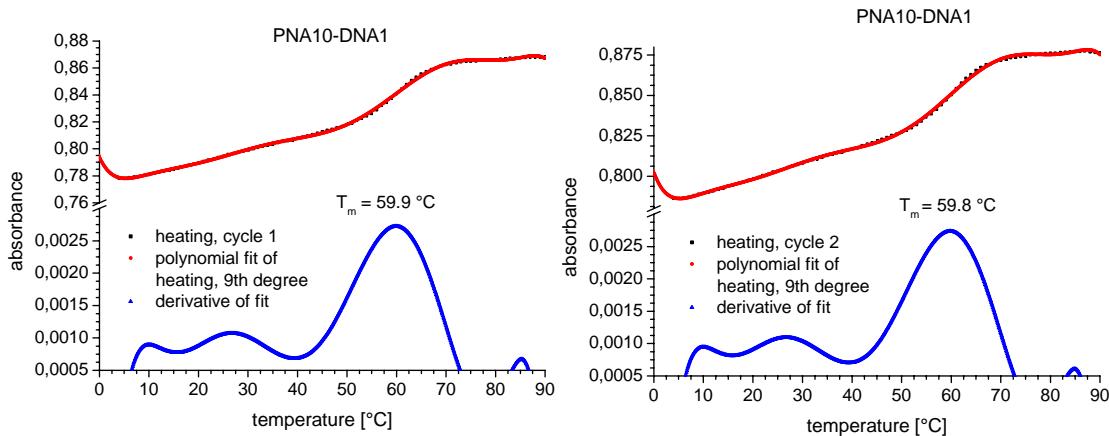
**Figure 44.** UV/Vis melting spectrum of **PNA6-DNA9**.



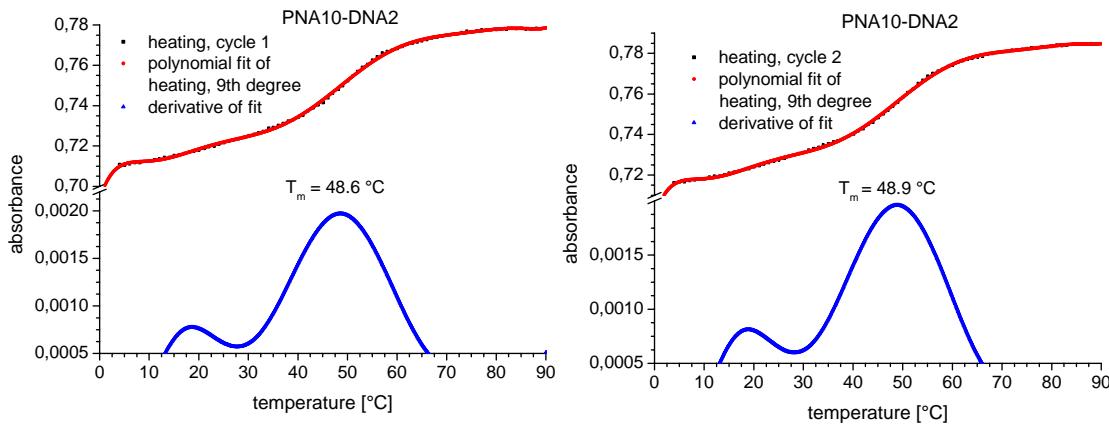
**Figure 45.** UV/Vis melting spectrum of **PNA9-DNA1**.



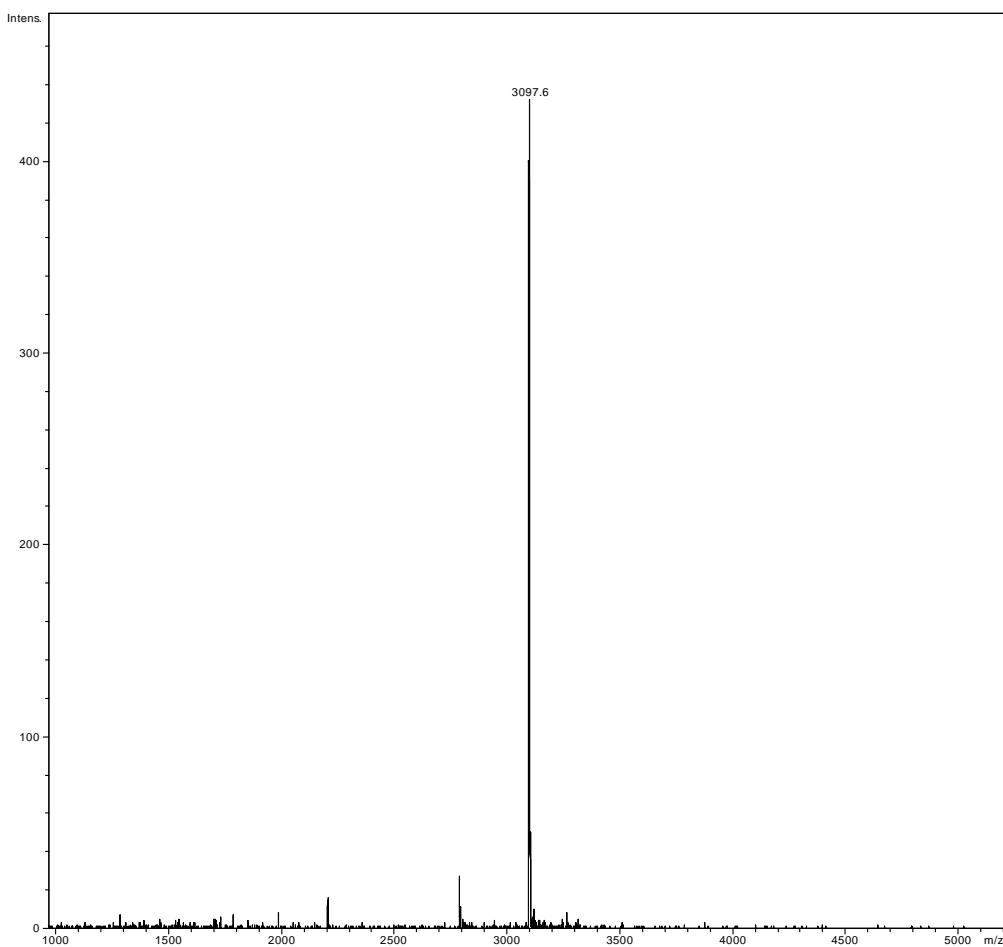
**Figure 46.** UV/Vis melting spectrum of **PNA9-DNA2**.



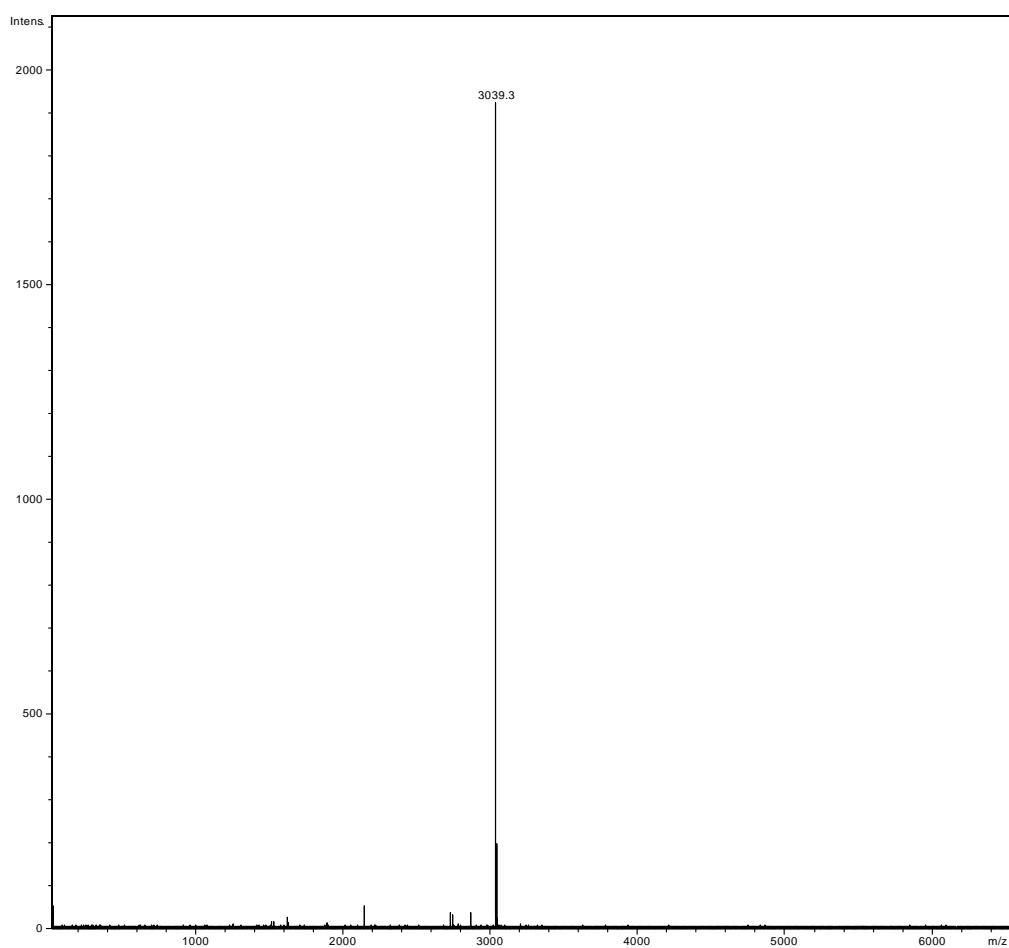
**Figure 47.** UV/Vis melting spectrum of **PNA10-DNA1**.



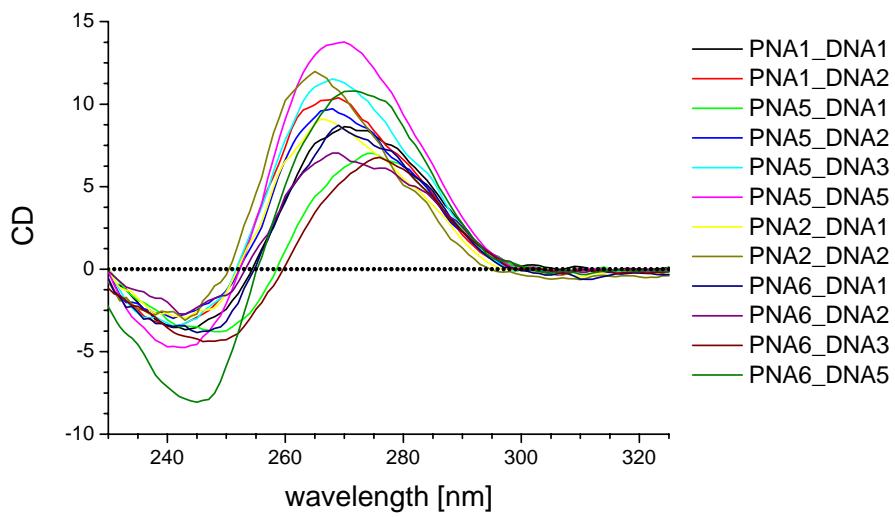
**Figure 48.** UV/Vis melting spectrum of **PNA10-DNA2**.



**Figure 49.** MALDI mass spectrum of **PNA9**: 3097.6 m/z. Expected 3096.99 m/z.



**Figure 50.** MALDI mass spectrum of **PNA10**: 3039.3 m/z. Expected 3039.94 m/z.



**Figure 51.** CD spectra of alkyne and ferrocene-containing PNA-DNA hybrids.