Highly Efficient New Hole Injection Materials for OLEDs Based on Dimeric Phenothiazine and Phenoxazine Derivatives

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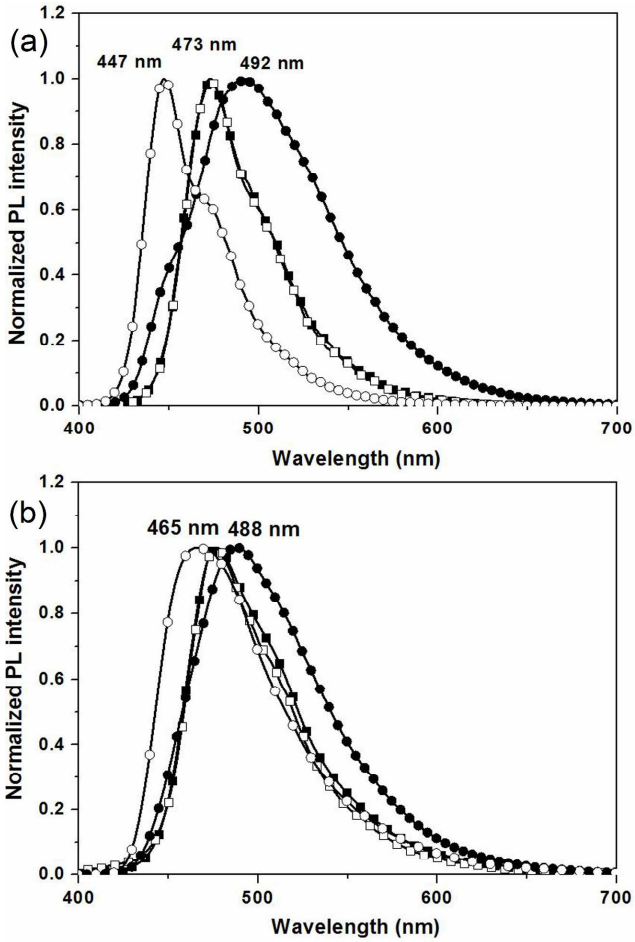


Figure S1 PL spectra (a) in benzene solution state (b) in film state; 1-PNA-BPBP (■), 2-PNA-BPBP (□), 1-PNA-BPBPOX (●), 2-PNA-BPBPOX (○).

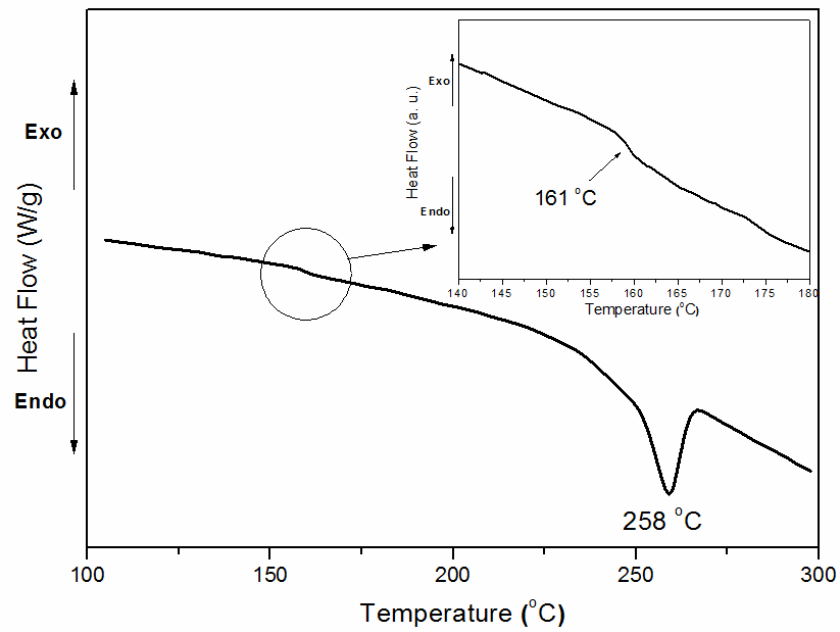
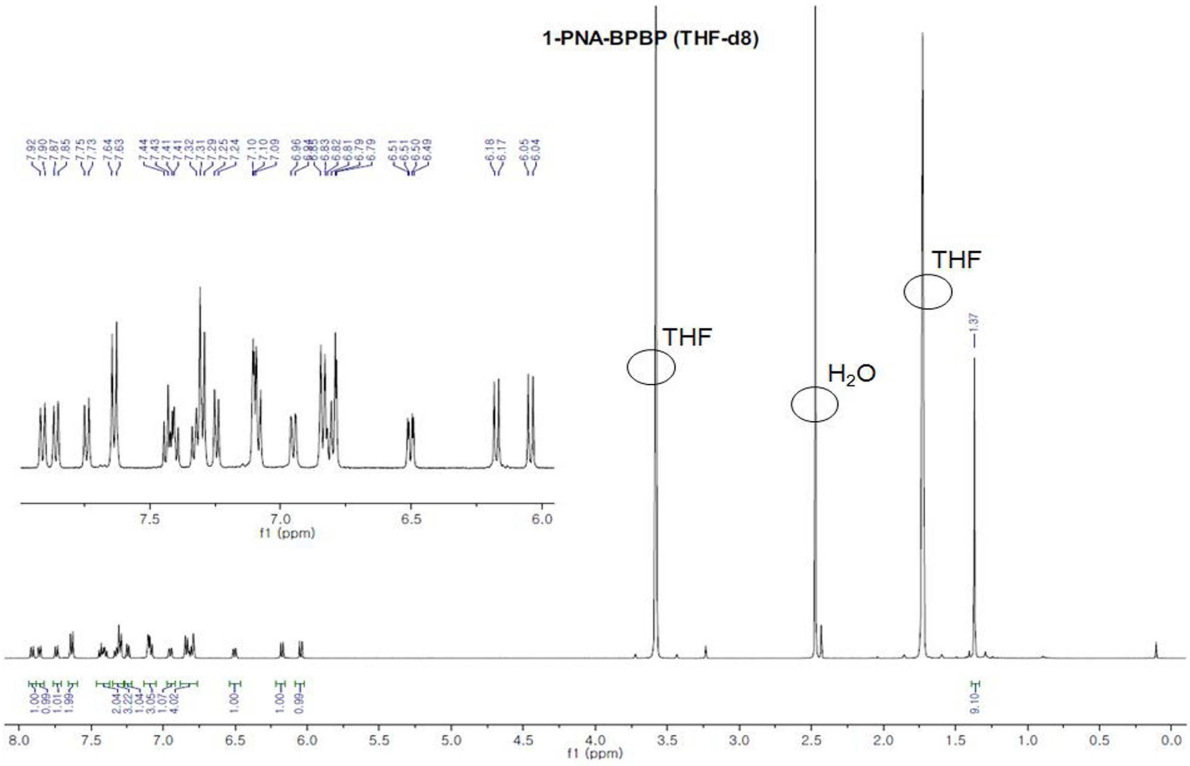
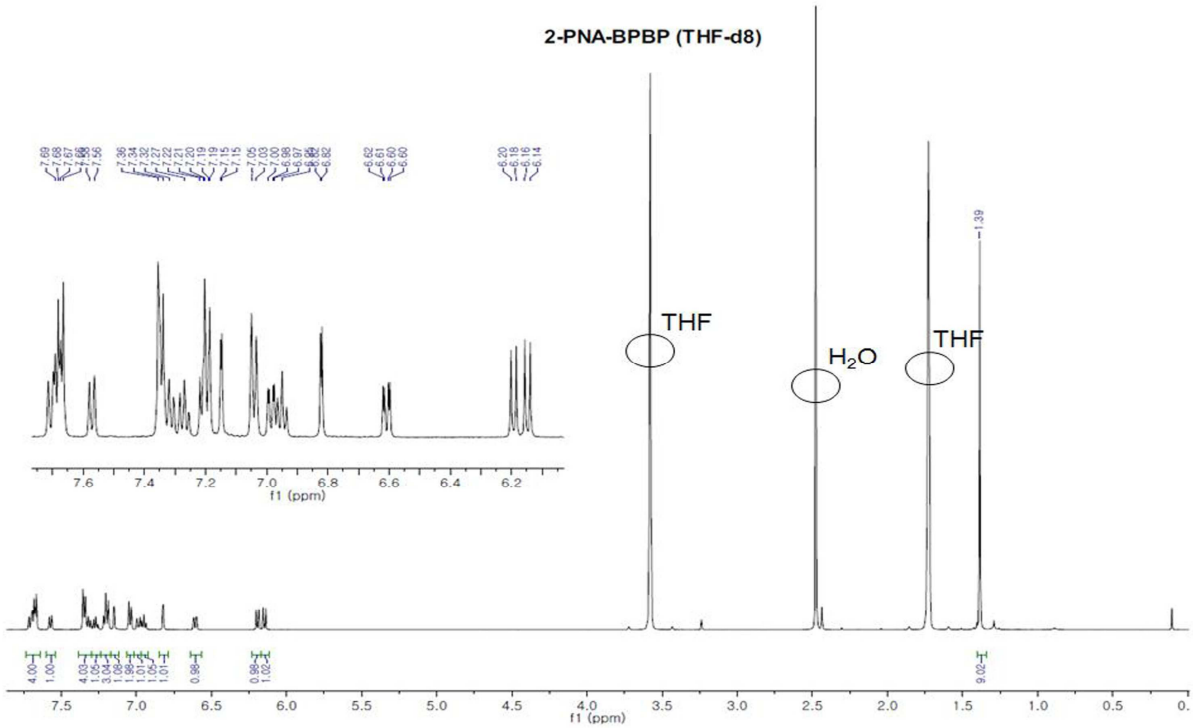


Figure S2 DSC data of 1-PNA-BPBPOX at heating rate of 10 °C/min in nitrogen.

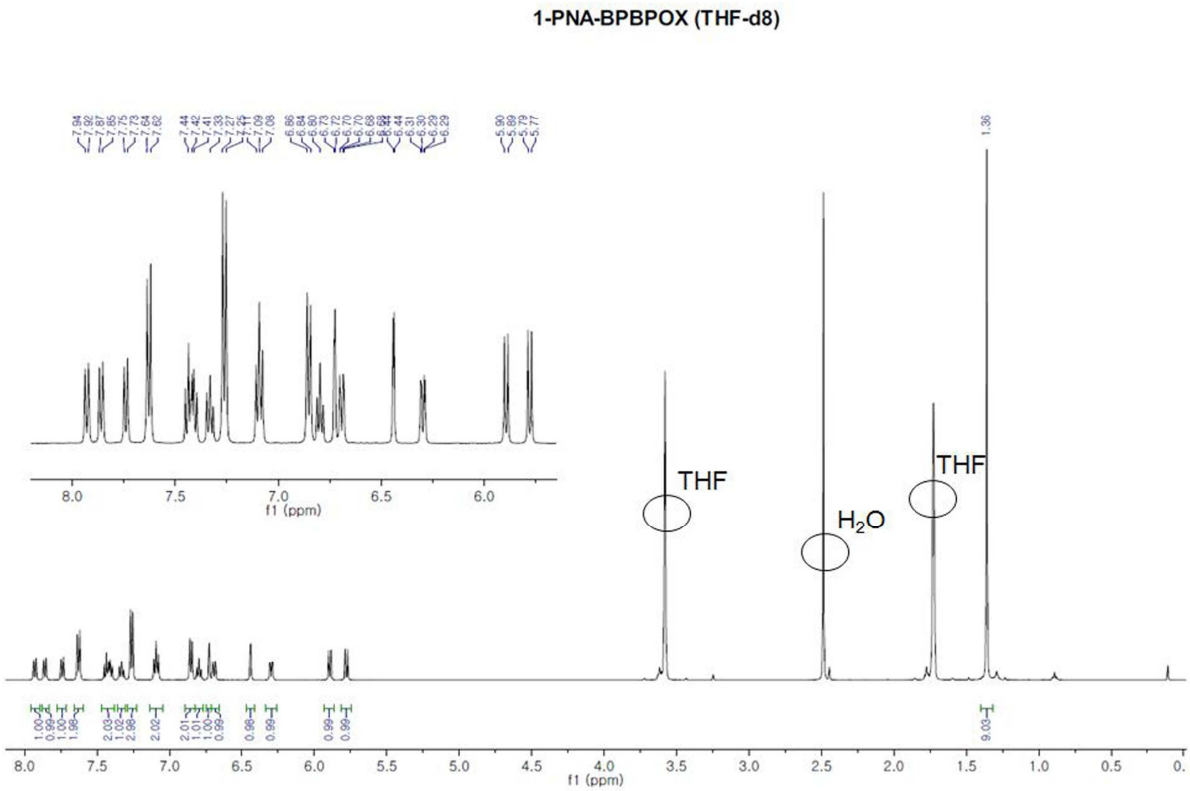
1. Copy of ^{1}H NMR of 1-, 2-PNA-BPBP and 1-, 2-PNA-BPBPOX.



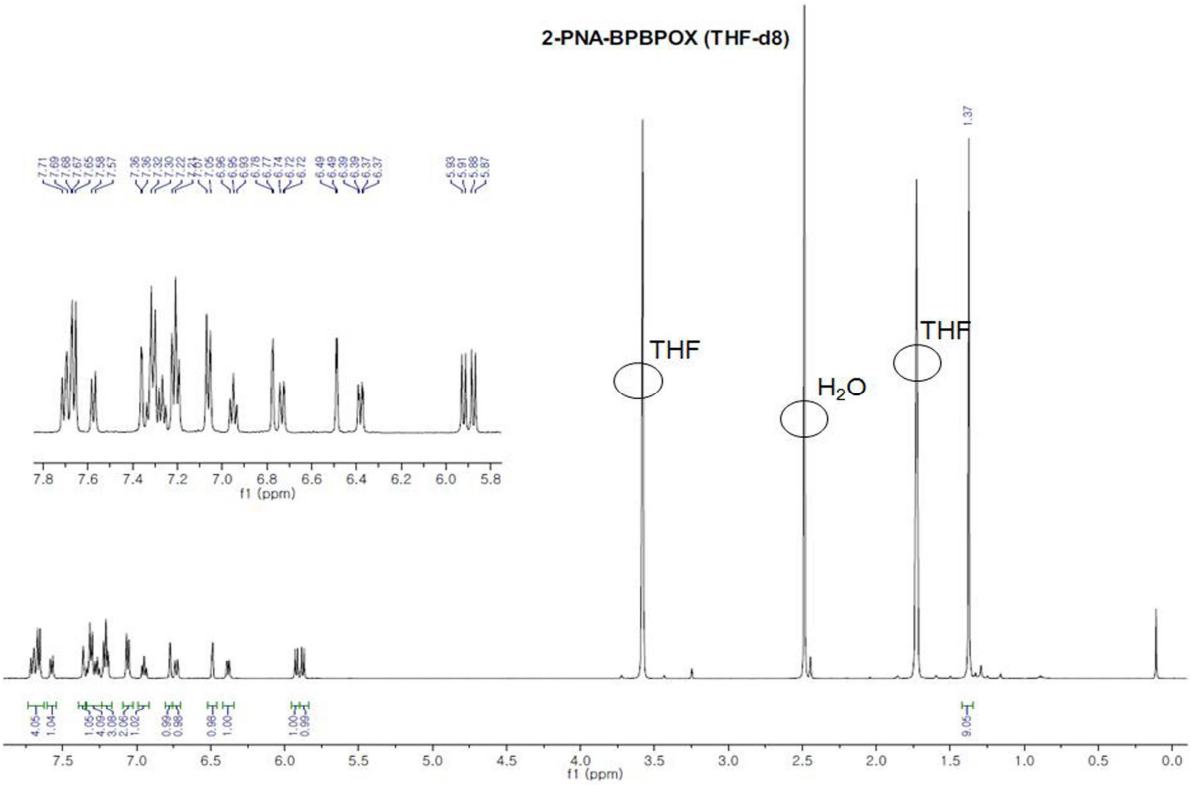
^{1}H NMR spectrum of 1-PNA-BPBP (500 MHz, THF-d_8)



^{1}H NMR spectrum of 2-PNA-BPBP (500 MHz, THF-d_8)

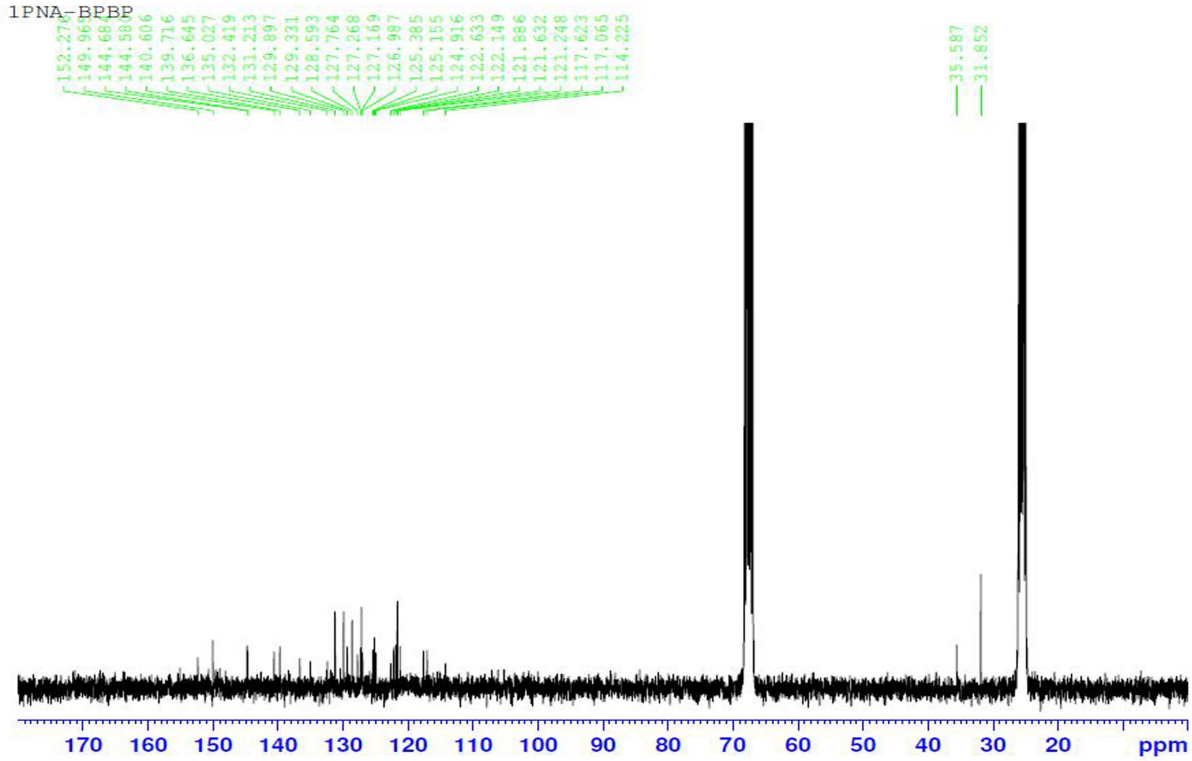


^{1}H NMR spectrum of 1-PNA-BPBPOX (500 MHz, THF-d_8)

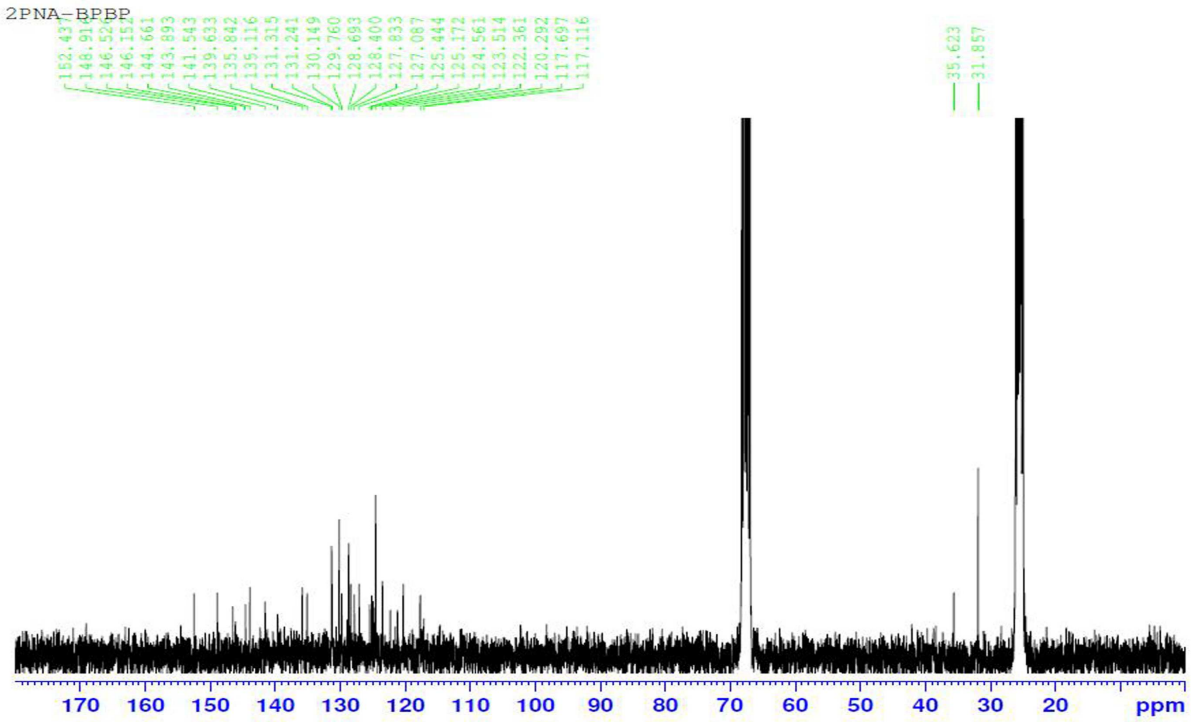


^{1}H NMR spectrum of 2-PNA-BPBPOX (500 MHz, THF-d_8)

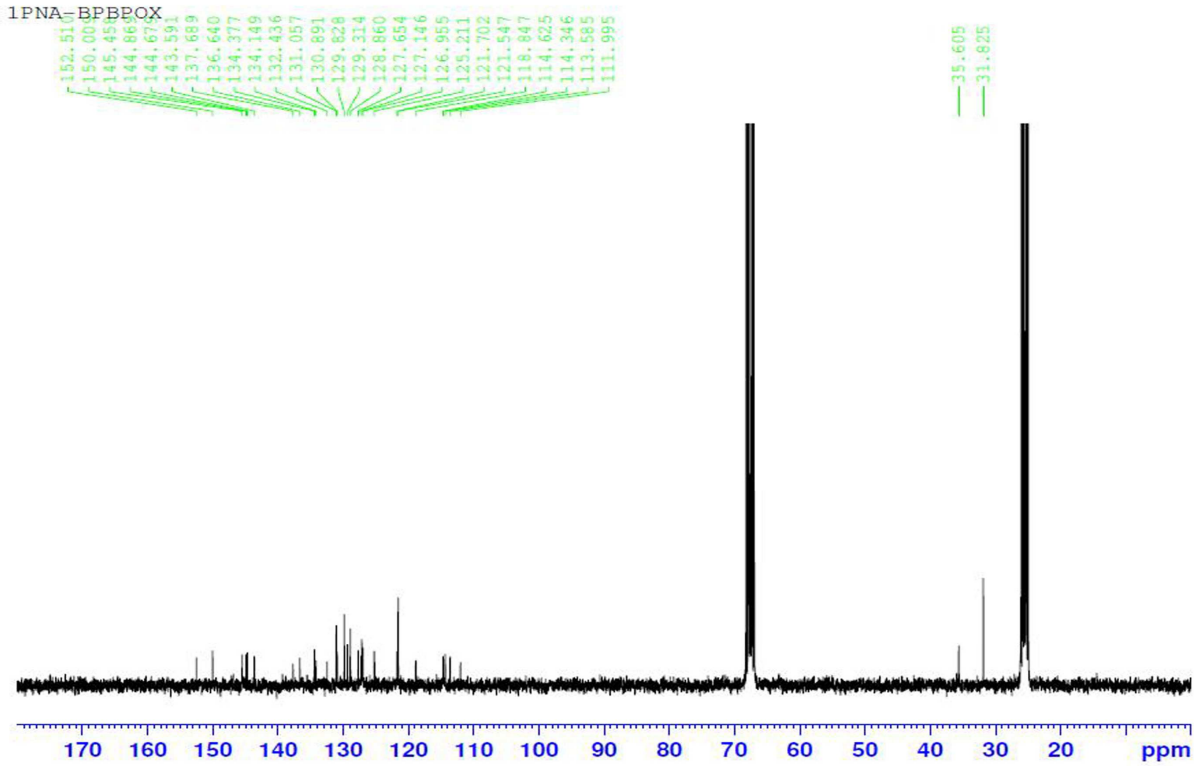
2. Copy of ^{13}C NMR of 1-, 2-PNA-BPBP and 1-, 2-PNA-BPBPOX



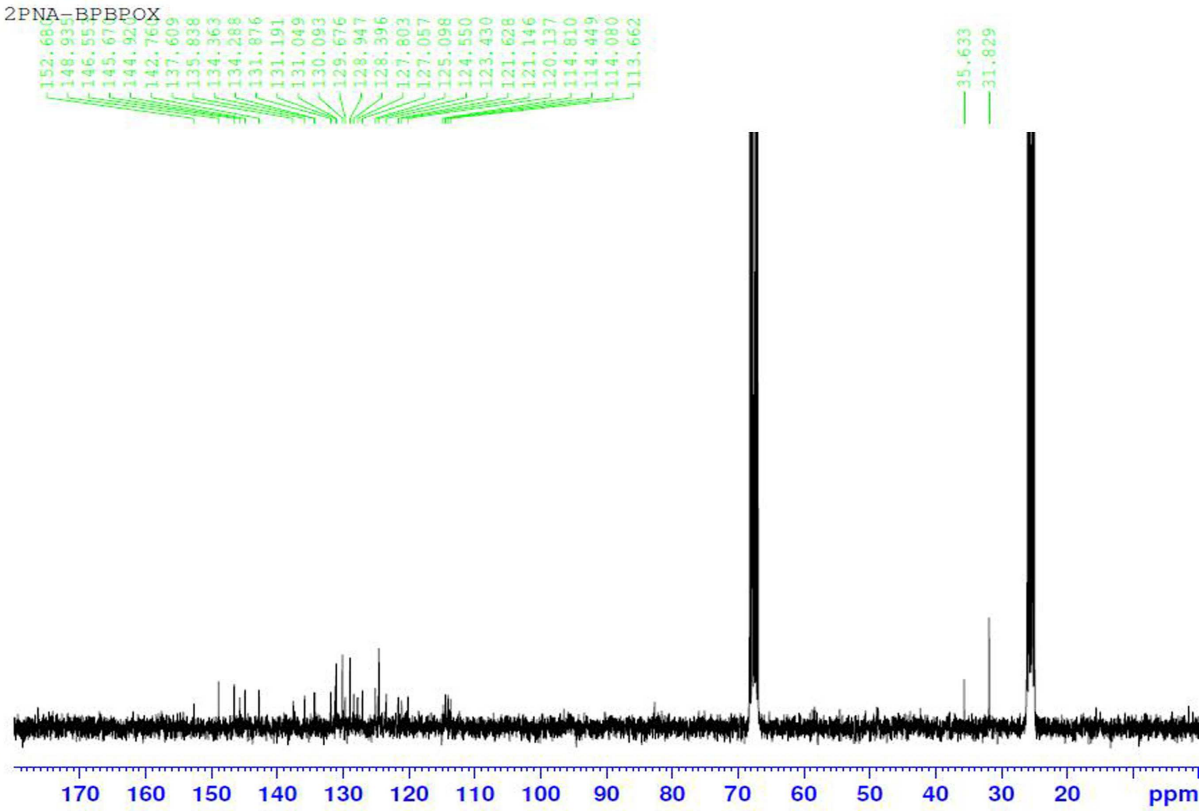
^{13}C NMR spectrum of 1-PNA-BPBP (300 MHz, THF-d_8)



^{13}C NMR spectrum of 2-PNA-BPBP (300 MHz, THF-d_8)



^{13}C NMR spectrum of 1-PNA-BPBPOX (300 MHz, THF-d_8)



^{13}C NMR spectrum of 2-PNA-BPBP (300 MHz, THF-d_8)