

**Effect of initiators on the Kumada catalyst-transfer polycondensation reaction**

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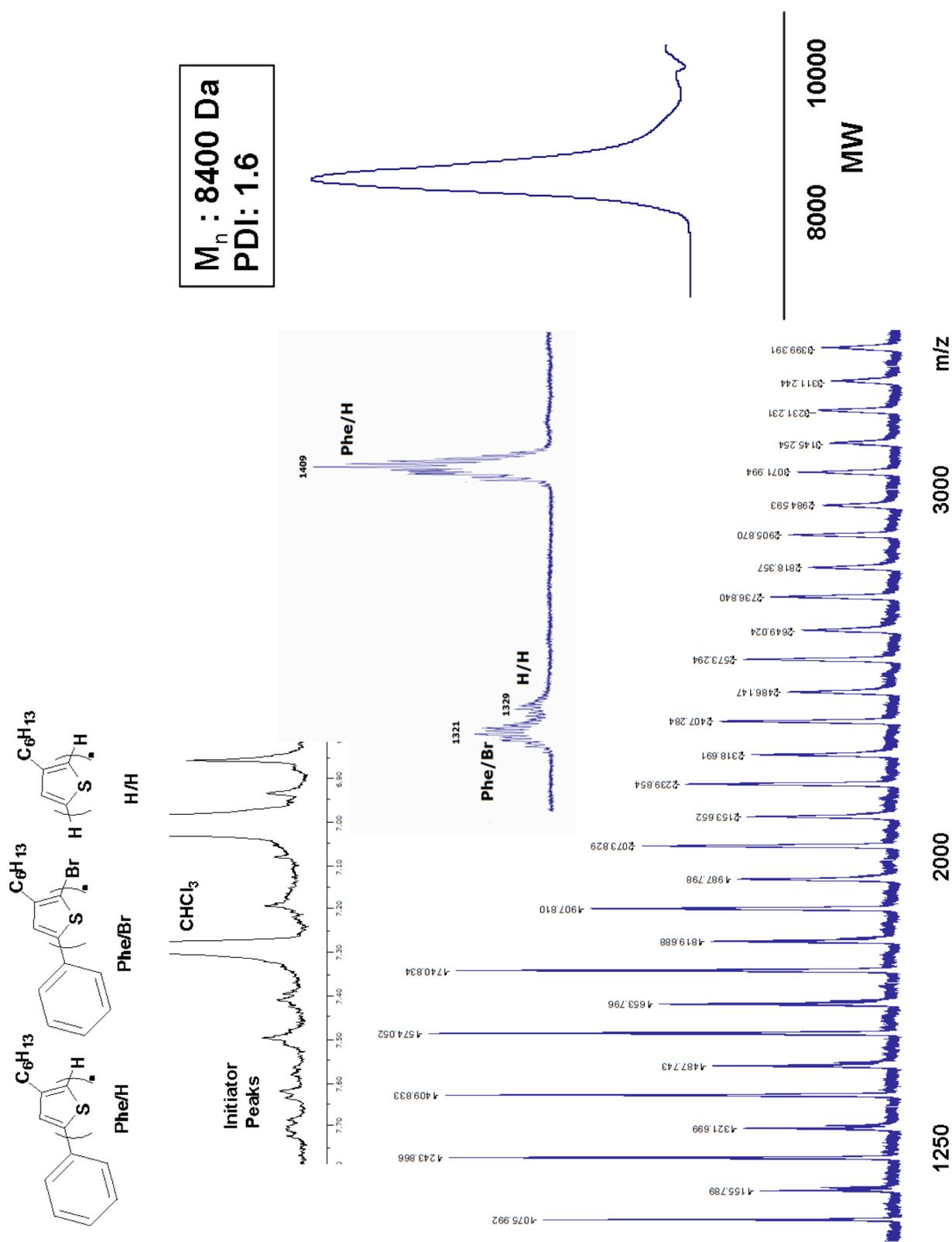


Figure 1.  $^1\text{H}$  NMR, GPC, and MALDI spectra of PhBr initiation with  $\text{Ni}(\text{PPh}_3)_2\text{Cl}_2$

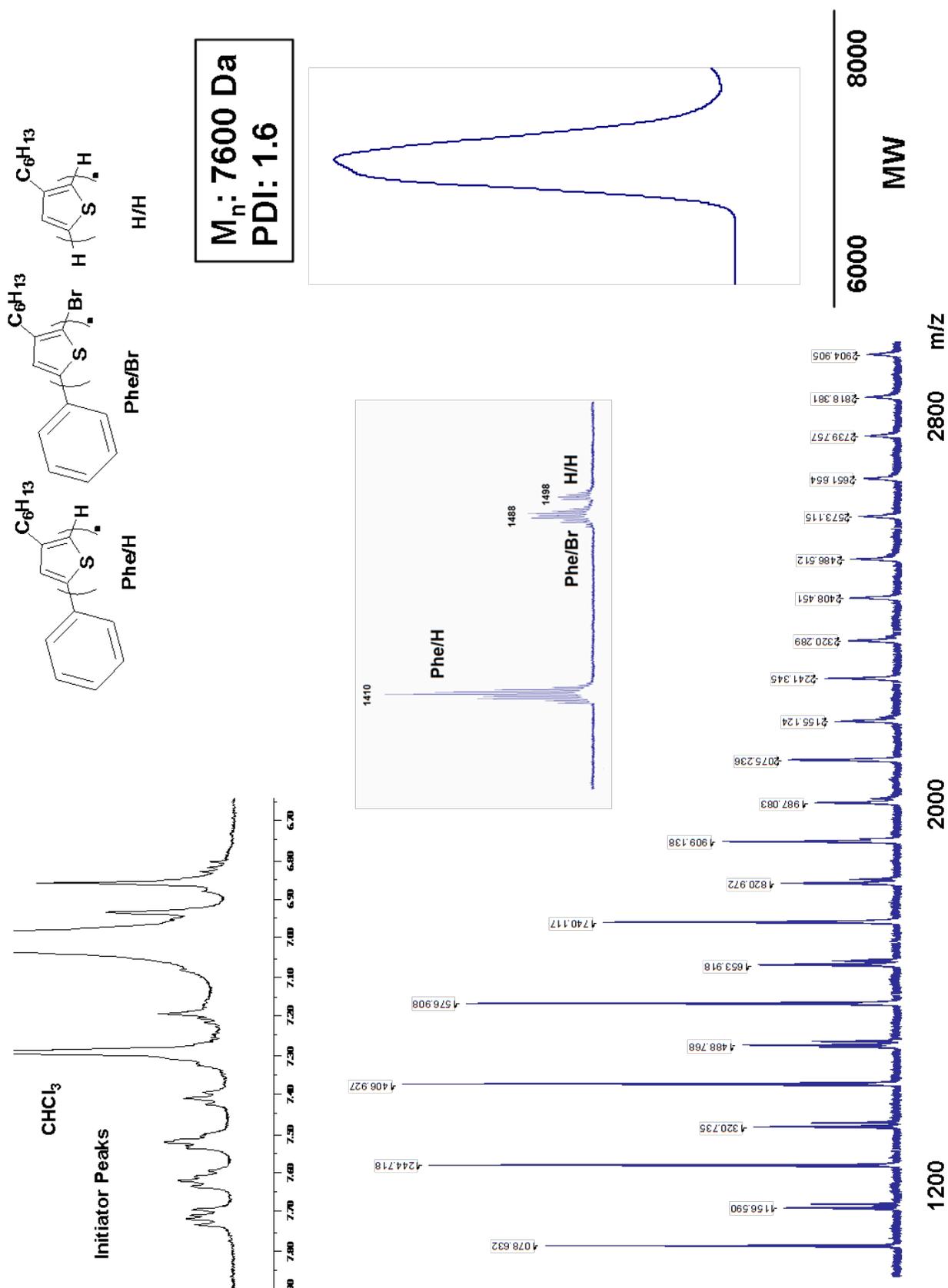


Figure 2.  $^1\text{H}$  NMR, GPC, and MALDI spectra of PhLi initiation with  $\text{Ni}(\text{PPh}_3)_2\text{Cl}_2$

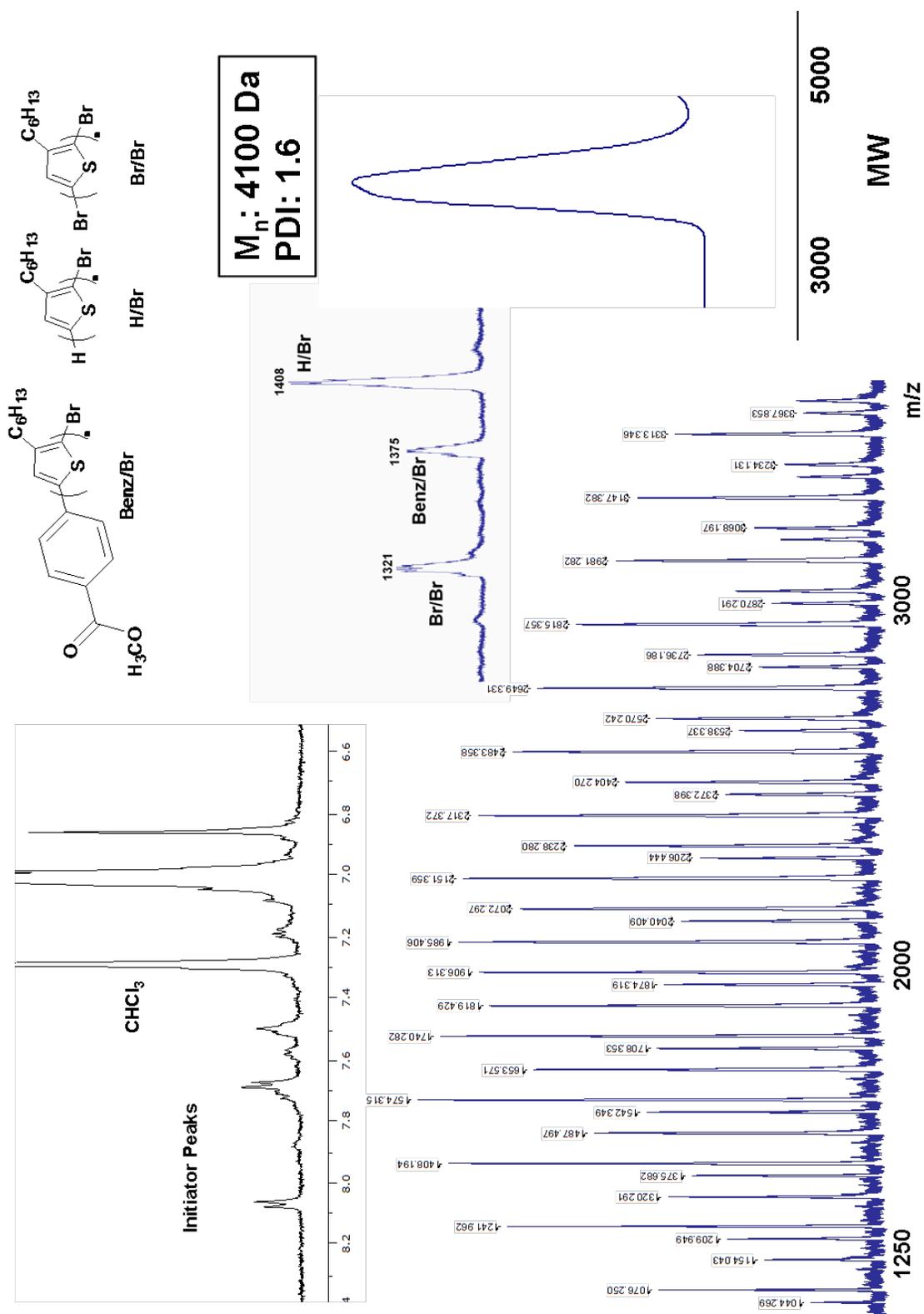
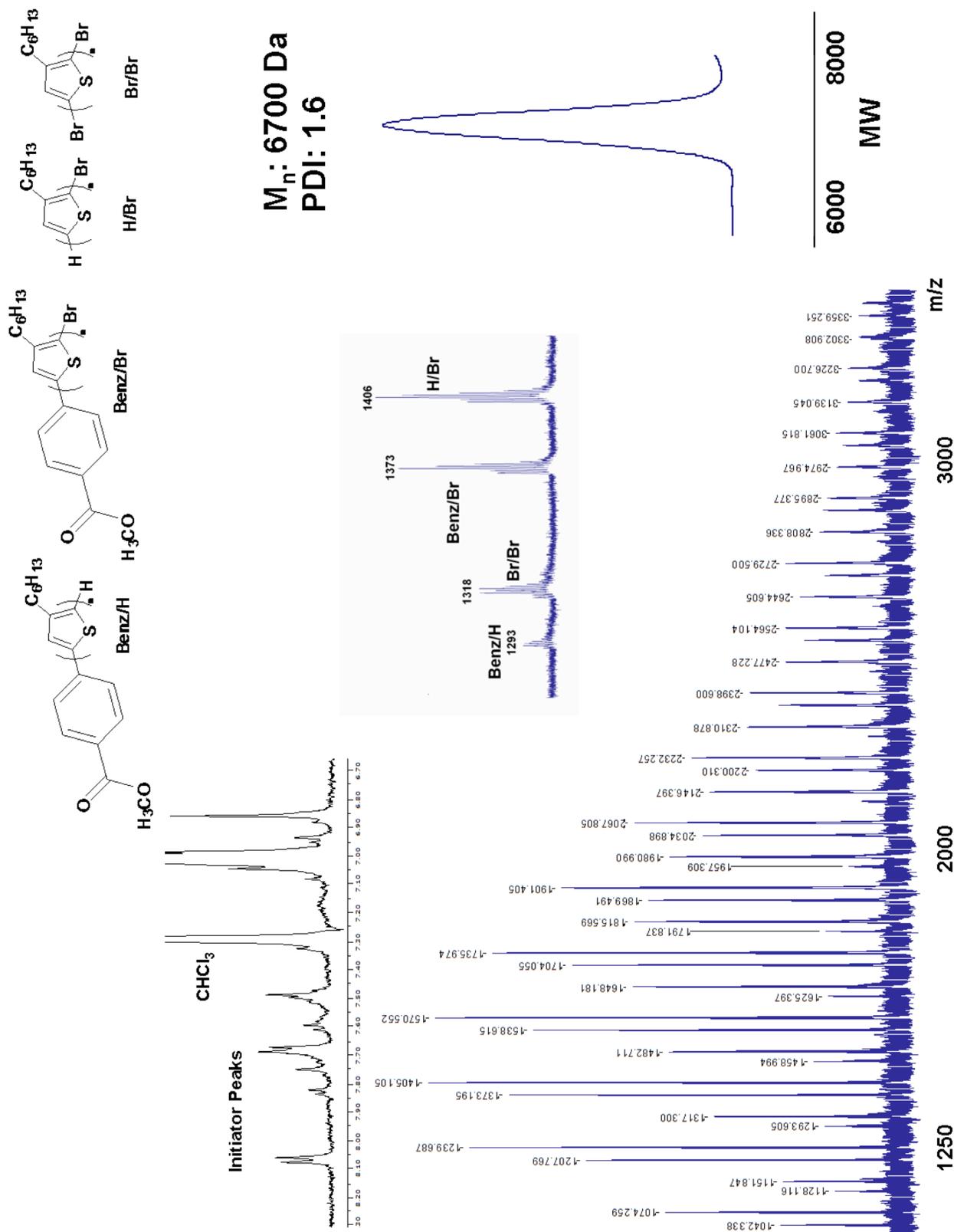
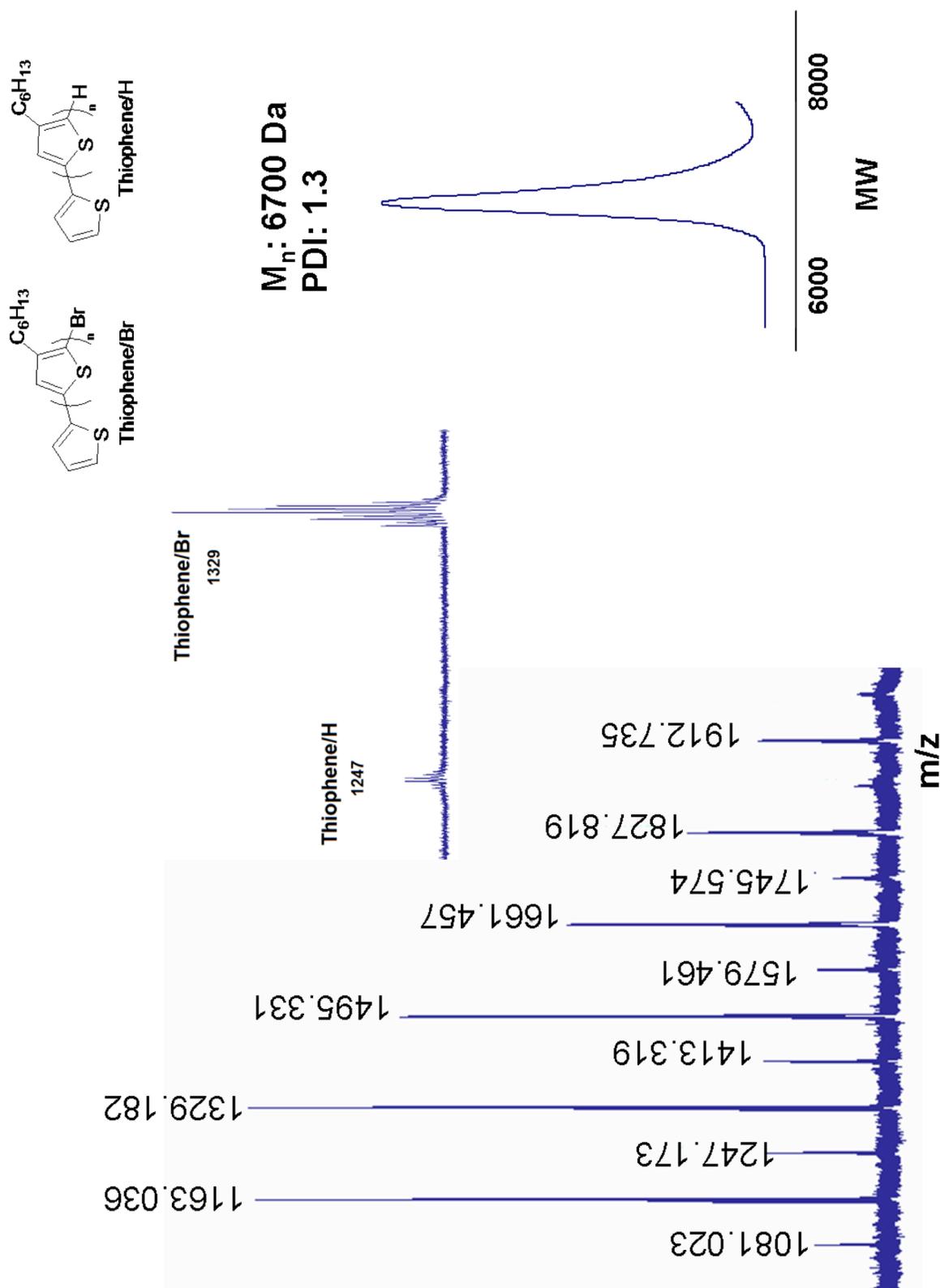


Figure 3.  $^1\text{H}$  NMR, GPC, and MALDI spectra of BenzBr initiation with  $\text{Ni}(\text{PPh}_3)_2\text{Cl}_2$  with 2 eq of BuLi



**Figure 4.**  $^1\text{H NMR}$ , GPC, and MALDI spectra of BenzBr initiation with  $\text{Ni}(\text{PPh}_3)_2\text{Cl}_2$  with 4 eq of BuLi



**Figure 5.** GPC and MALDI spectra of 2-bromothiophene initiation with  $\text{Ni}(\text{PPh}_3)_2\text{Cl}_2$ .  $^1\text{H}$  NMR has not been included in this case since the thiophene end-group overlaps with the P3HT polymer backbone.

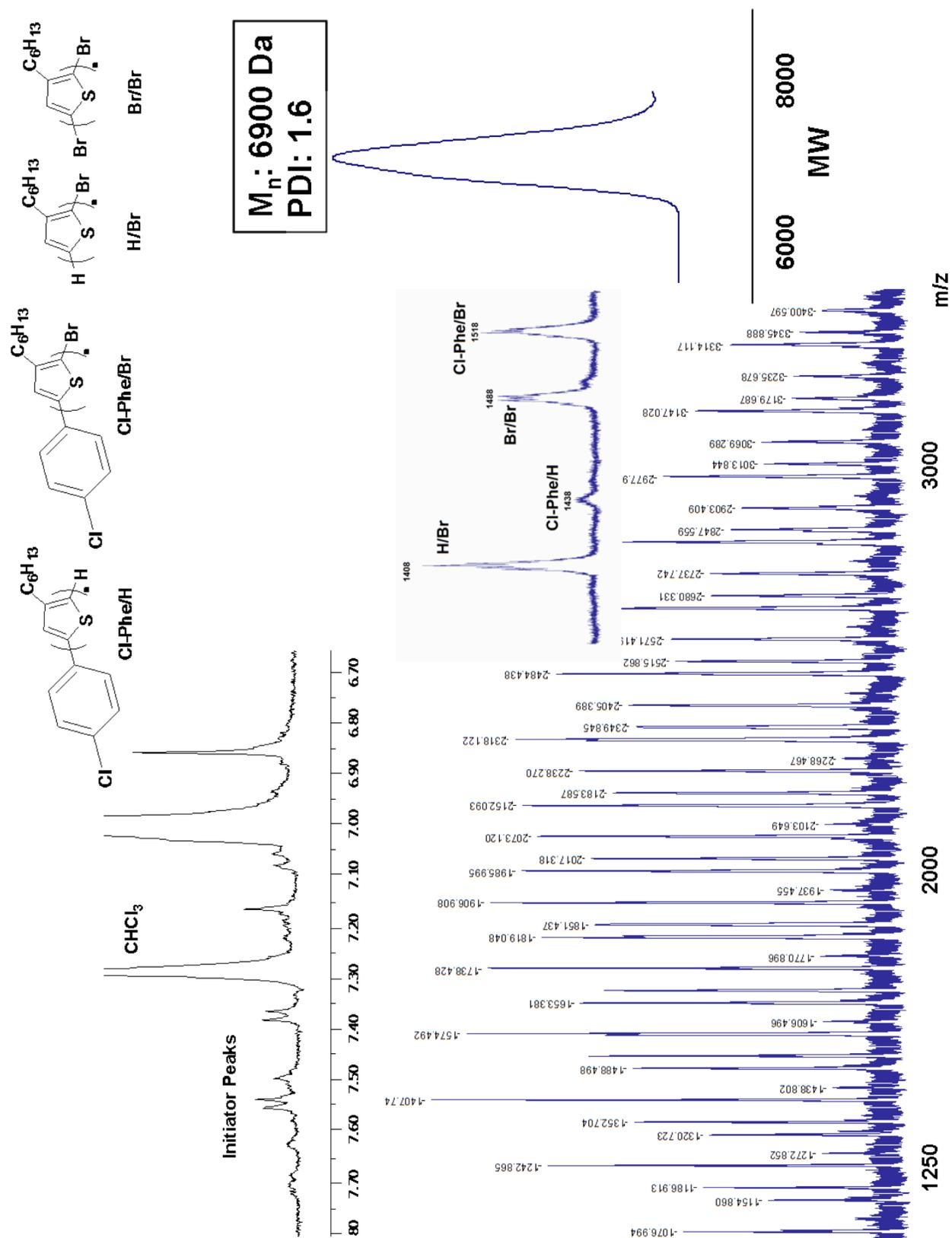


Figure 6.  $^1\text{H}$  NMR, GPC, and MALDI spectra of 4-bromochlorobenzene initiation with  $\text{Ni}(\text{PPh}_3)_2\text{Cl}_2$