polymers

Supplementary Materials: Novel Chain-End Modification of Polymer Iodides via Reversible Complexation-Mediated Polymerization with Functionalized Radical Generation Agents

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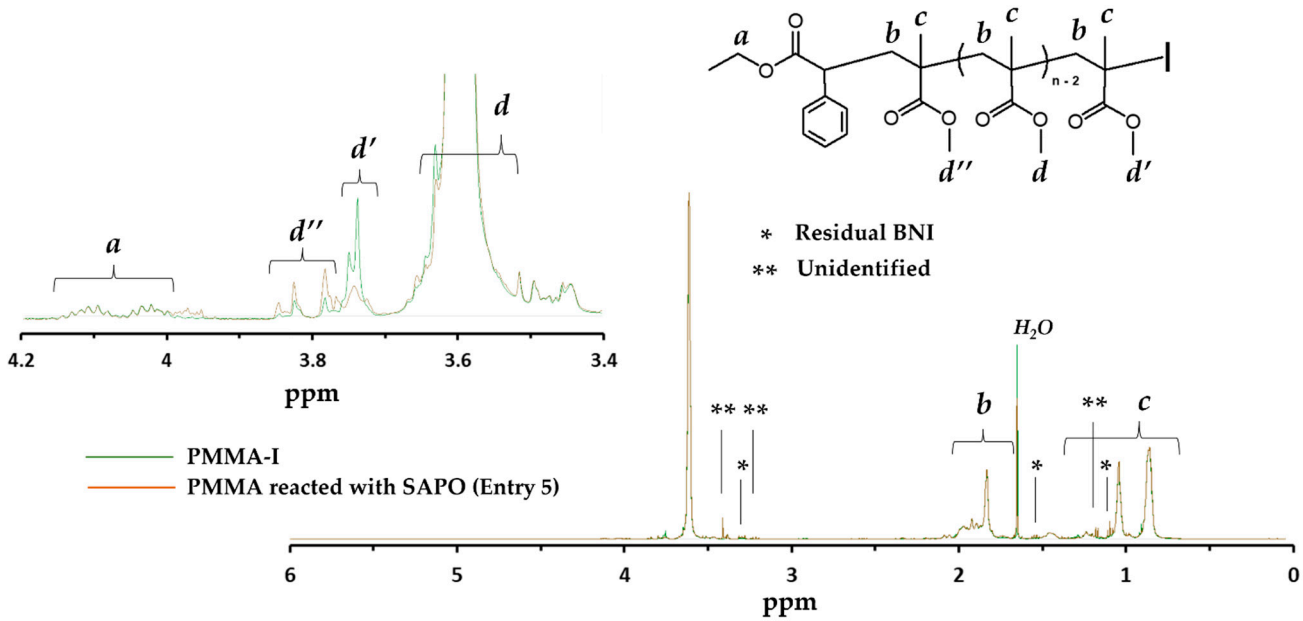


Figure S1. ^{1}H-NMR spectra of PMMA modified with SAPO (Entry 5) and PMMA-I (precursor).

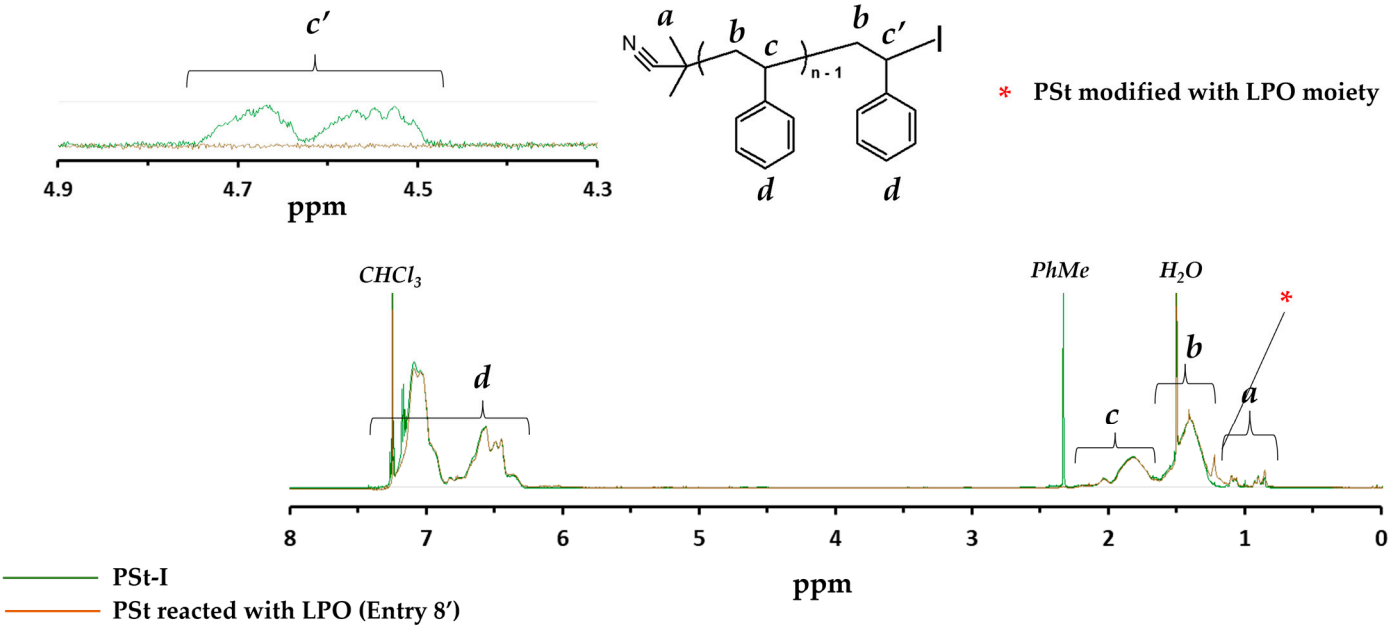


Figure S2. ^{1}H-NMR spectra of PSt modified with LPO (Entry 8′) and PSt-I (precursor).

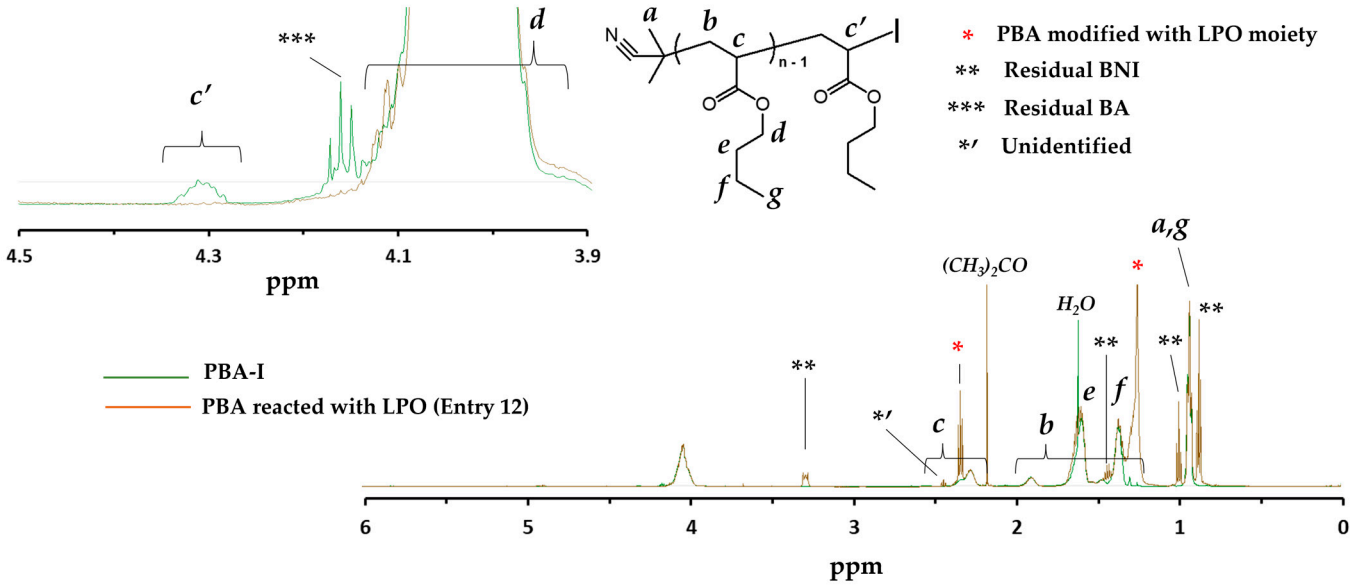


Figure S3. ^{1}H-NMR spectra of PBA modified with LPO (Entry 12) and PBA-I (precursor).

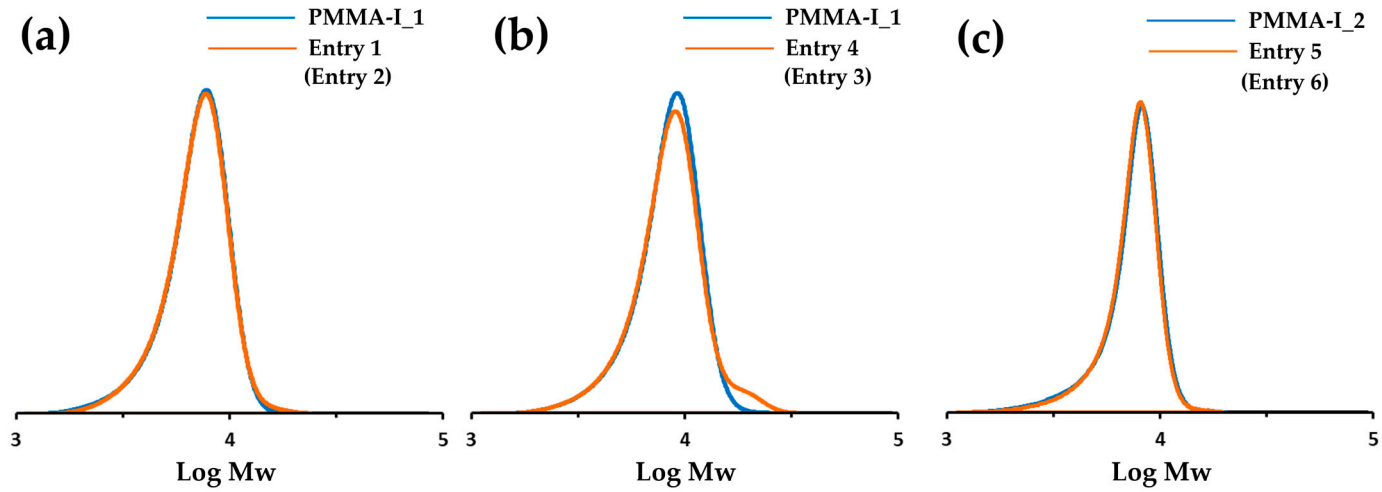


Figure S4. SEC chromatograms before and after chain-end modification for (a) Entry 1, (b) Entry 4, and (c) Entry 5.

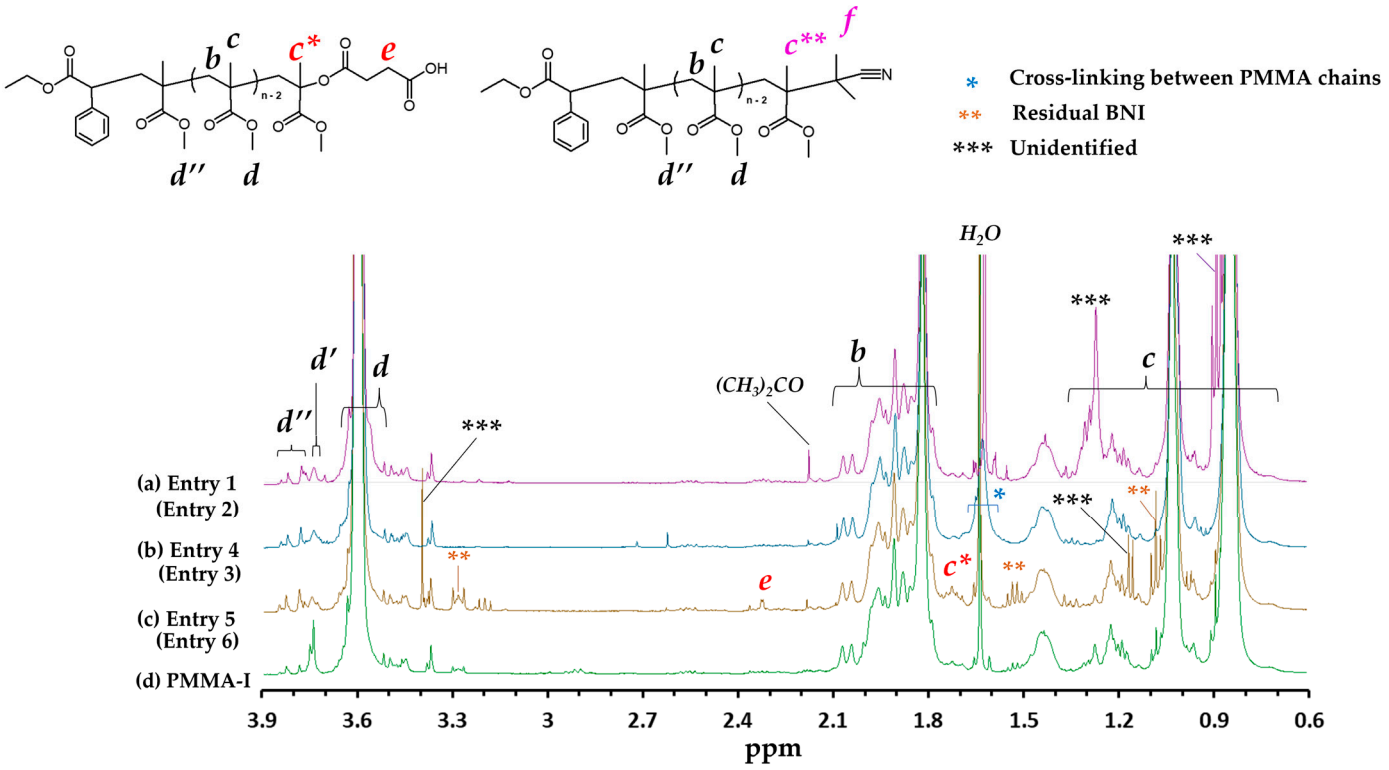
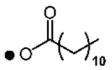
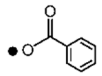


Figure S5. ^{1}H-NMR spectra of PMMAs modified with (**a**) only azo compound AIBN (Entry 1), (**b**) only diacyl peroxide SAPO (Entry 4), (**c**) combination of SAPO and iodine abstraction catalyst BNI (Entry 5), and (**d**) precursor PMMA-I.

Table S1. Combination ratio for radicals (R·) produced by decomposition of radical generating agent (R-R) to PhE-I radical (PhE·).

Radical generating agent (R-R)			Combination ratio between R·and PhE [%] [a]
Type	**Abbrev.**	**Structure of generated radical (R·)**	
Azo compound	AIBN		18
Diacyl peroxide	LPO		100
	BPO		100

[a] combination ratio for R· and PhE· was calculated by integrating the peak corresponding to PhE-R generated by combination of PhE· and R

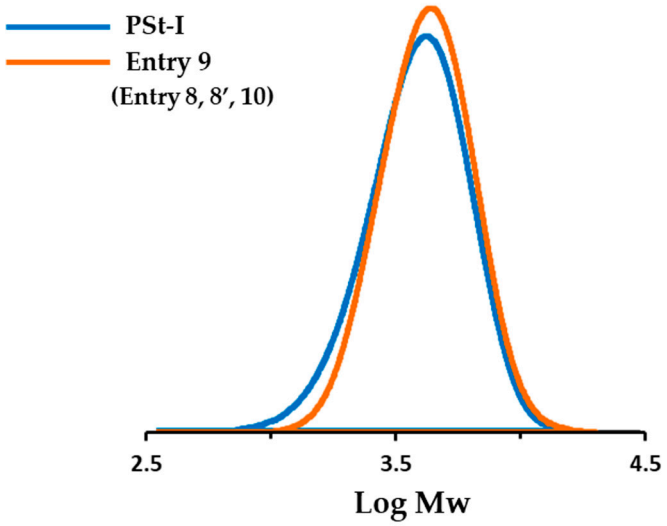


Figure S6. SEC chromatograms before and after chain-end modification for Entry 9.

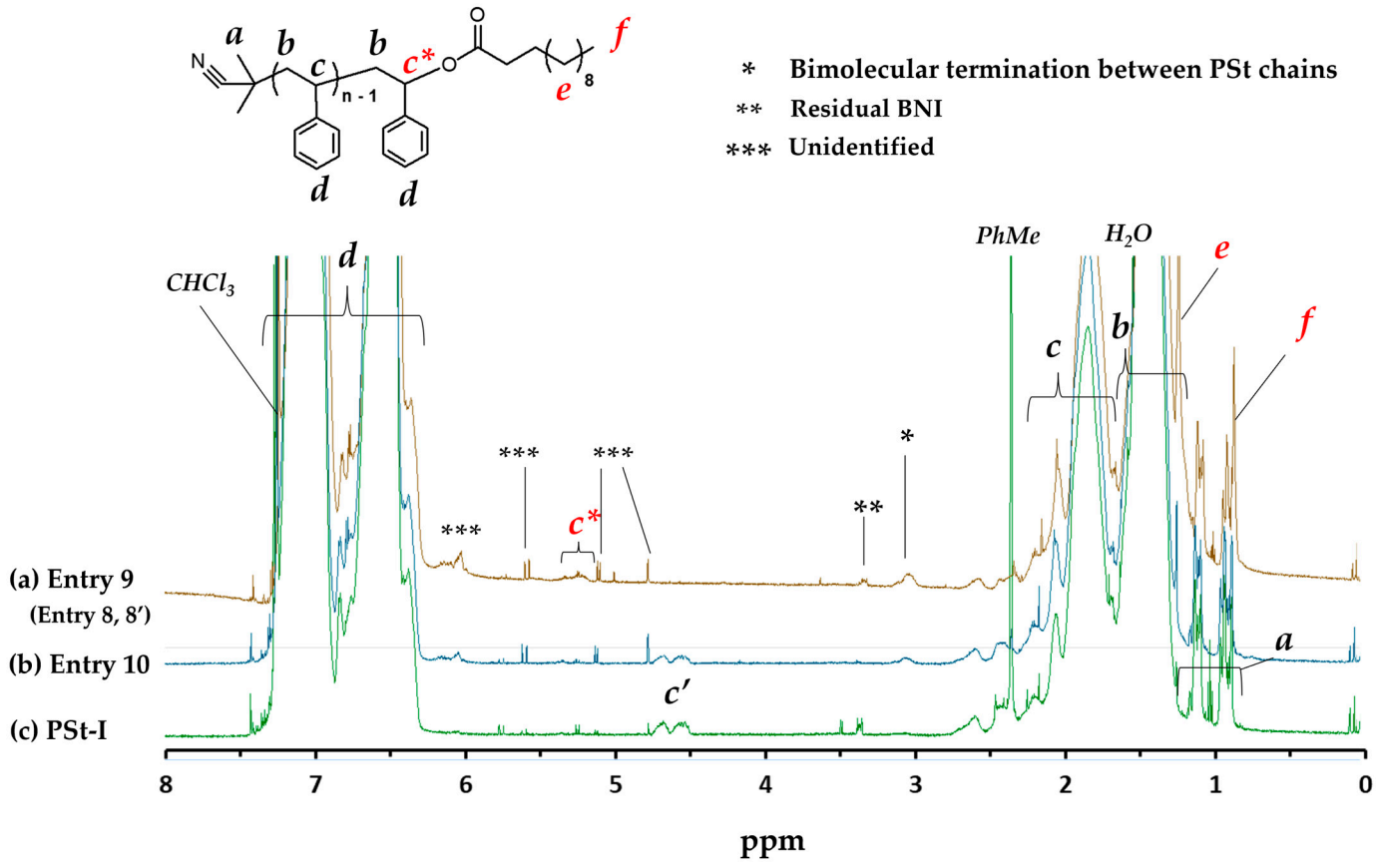


Figure S7. ^{1}H-NMR spectra of PSt modified with (**a**) BNBr (Entry 9), (**b**) BSI (Entry 10), and (c) precursor PSt-I.

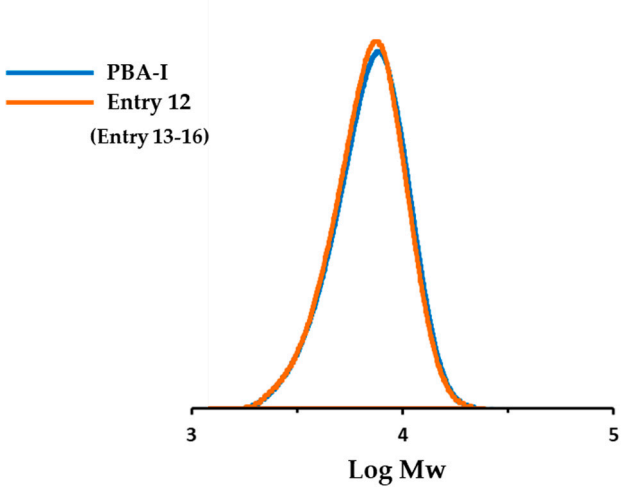


Figure S8. SEC chromatograms before and after chain-end modification for Entry 12.

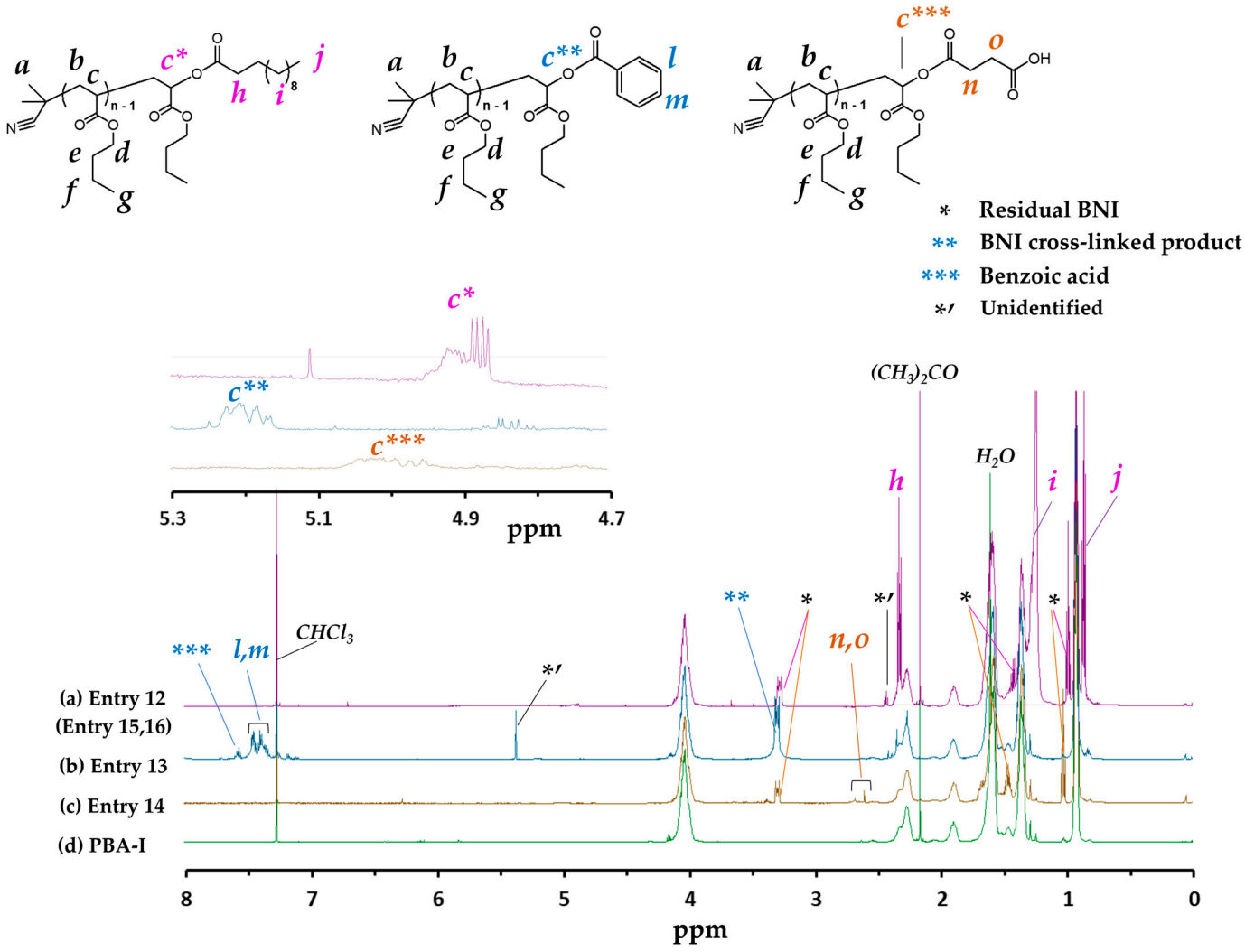


Figure S9. ^{1}H-NMR spectra of PBAs modified with different diacyl peroxides; (**a**) LPO (Entry 9), (**b**) BPO (Entry 13) and (**c**) SAPO (Entry 14), (**d**) precursor PBA-I.