Electronic Supplementary Material (ESI) for Polymer Chemistry.

Electronic Supplementary Information

Alkylaluminum dichloride–ether complexes which are fully soluble in hydrocarbons as catalysts for the synthesis of exo-olefin terminated polyisobutylene at room temperature

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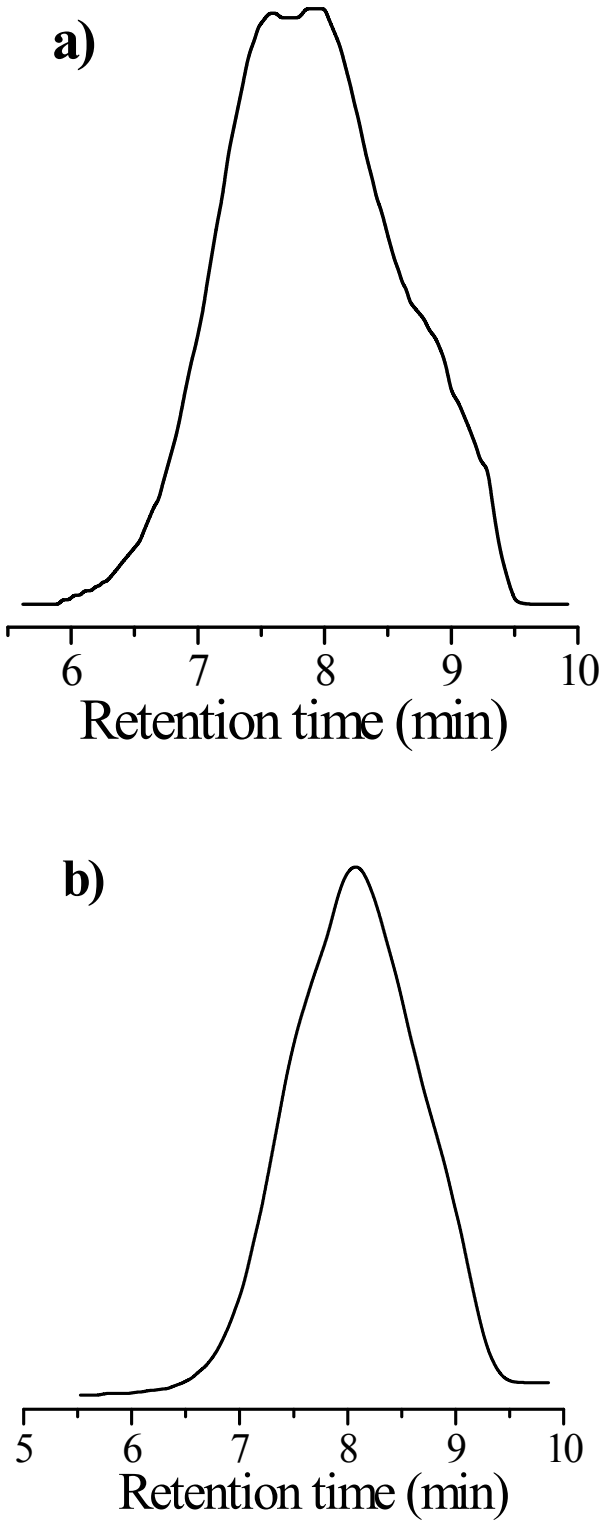

Figure S1. SEC traces of poly(isobutylene)s synthesized by the cationic polymerization of isobutylene with $H_2O/EtAlCl_2 \times 0.8O^iPr_2$ initiating system at 10 °C in *n*-hexane at [M]=5.8 M: (**a**) run 9, Table 2; (**b**) run 10, Table 2.

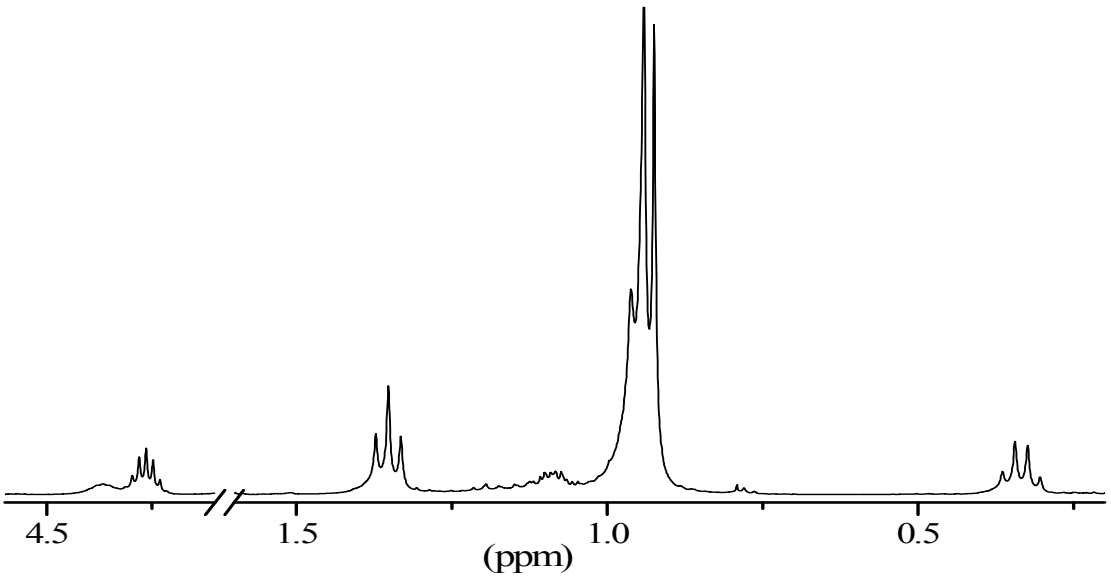

Figure S2. Part of ^{1}H NMR spectrum of $EtAlCl_2 \times O^{i}Pr_2$ (0.05M) in C_6D_6 at 25 °C.

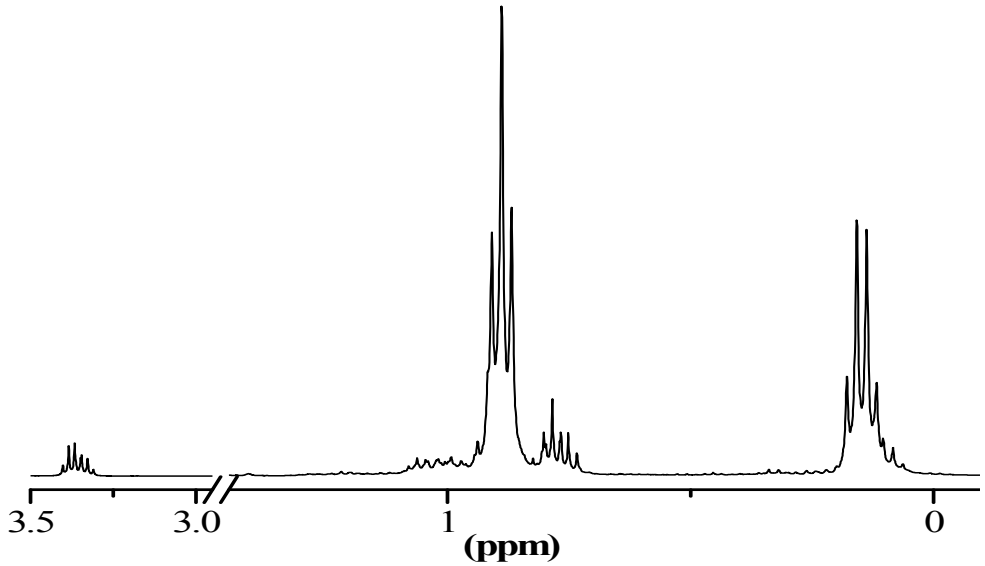

Figure S3. Part of ^{1}H NMR spectrum of $EtAlCl_2$ (0.05M) in C_6D_6 at 25 °C.

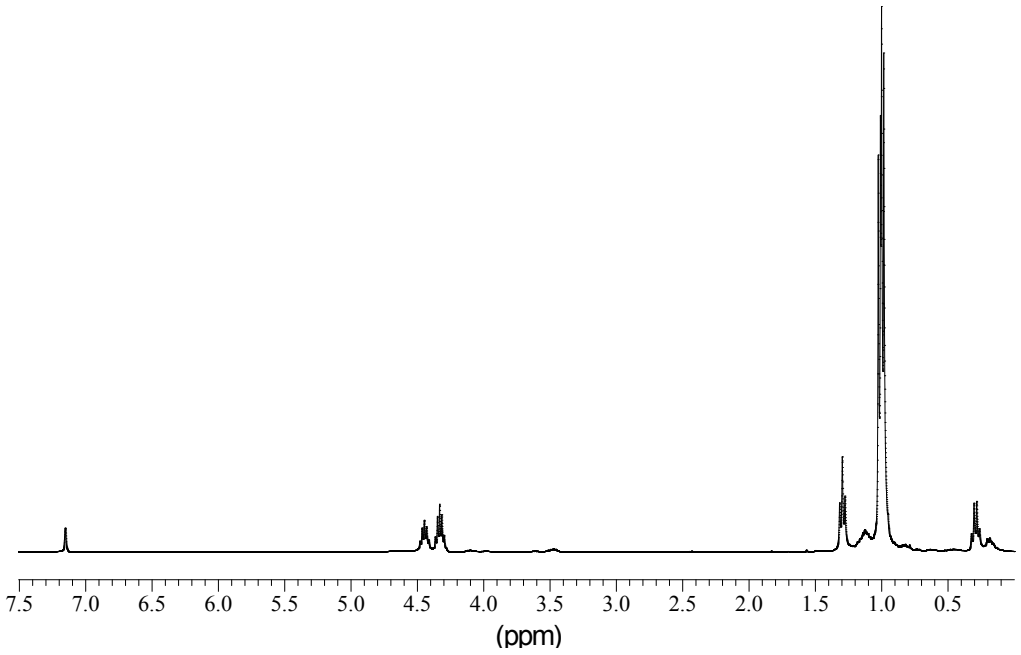

Figure S4. ^{1}H NMR spectrum of $EtAlCl_2 \times O^iPr_2$ (0.1 M) in C_6D_6 at 25 °C

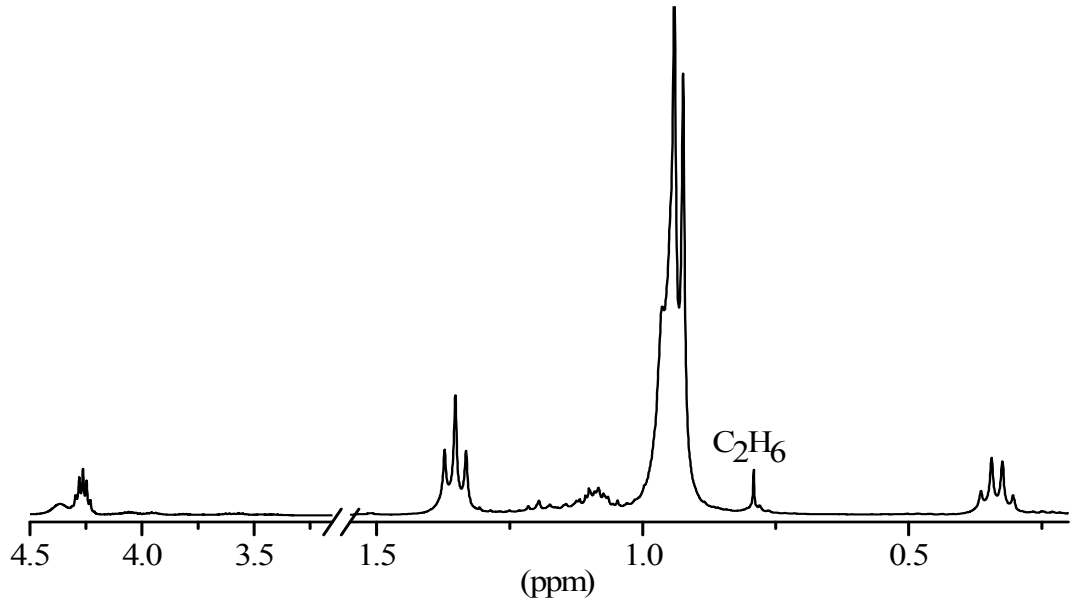

Figure S5. Part of ^{1}H NMR spectrum of $EtAlCl_2 \times O^iPr_2$ (0.05M) after reaction with water during 10 min in C_6D_6 at 25 °C

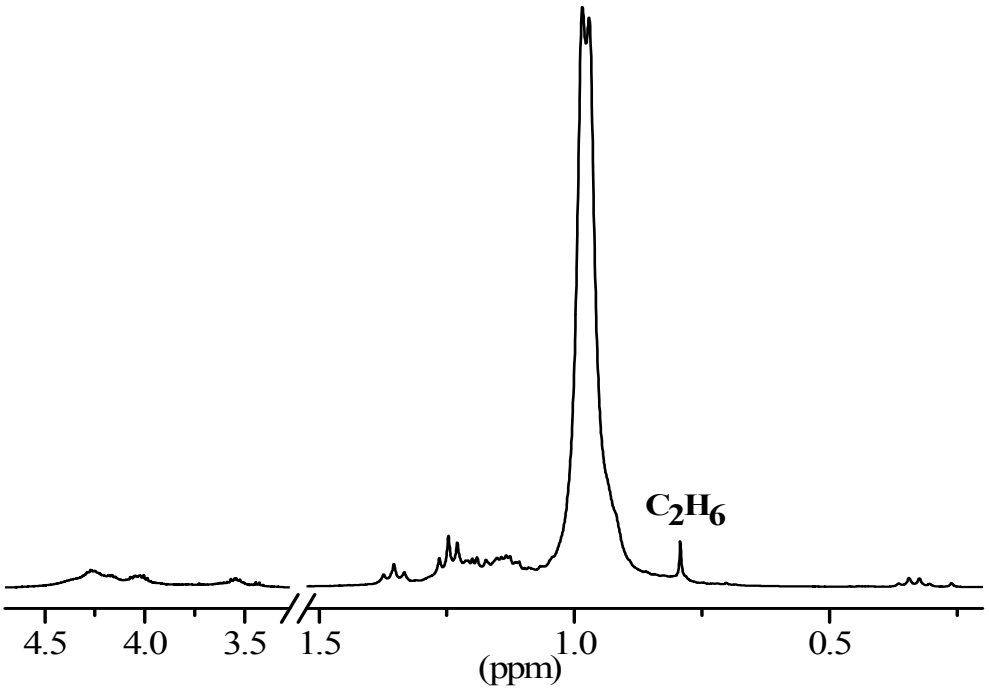

Figure S6. Part of ^{1}H NMR spectra of $EtAlCl_2 \times O^{i}Pr_2$ after reaction with water during 10 h in C_6D_6 at 25 °C.