Supplementary Materials

Synthesis of Ultrahigh Molecular Weight Polymers Containing Reactive Functionality with Low PDIs by Polymerizations of Long-chain α-Olefins in the Presence of their Nonconjugated Dienes by Cp*TiMe₂(2,6-iPr₂C₆H₃)--Borate Catalyst

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Contents

Selected ¹H NMR spectra (in 1,1,2,2-tetrachloroethane-d₂ at 25 °C) for poly(1-decene-co-1,9-decadiene)s (Figures S1,2), poly(1-dodecene-co-1,11-dodecadiene)s (Figures S3,4), and poly(1-tetradecene-co-1,13-tetradecadiene)s (Figures S5,6).

Figure S1. ¹H NMR spectrum (in 1,1,2,2-tetrachloroethane-d₂ at 25 °C) for poly(1-decene-co-1,9-decadiene) (run 1, after 5 min, 1,9-decadiene 8.9 mol%).
Figure S2. $^1$H NMR spectrum (in 1,1,2,2-tetrachloroethane-$d_2$ at 25 °C) for poly(1-decene-co-1,9-decadiene) (run 2, after 10 min, 1,9-decadiene 9.1 mol%). *Impurity

Figure S3. $^1$H NMR spectrum (in 1,1,2,2-tetrachloroethane-$d_2$ at 25 °C) for poly(1-decene-co-1,11-dodecadiene) (run 4, after 30 min, 1,11-dodecadiene 7.7 mol%). *Impurity

Figure S4. $^1$H NMR spectrum (in 1,1,2,2-tetrachloroethane-$d_2$ at 25 °C) for poly(1-dodecene-co-1,11-dodecadiene) (run 5, after 120 min, 1,11-dodecadiene 7.5 mol%). *Impurity
Figure S5. $^1$H NMR spectrum (in 1,1,2,2-tetrachloroethane-$d_2$ at 25 °C) for poly(1-tetradecene-$co$-1,13-tetradecadiene) (run 6, after 30 min, 1,13-tetradecadiene 4.5 mol%). *Impurity

Figure S6. $^1$H NMR spectrum (in 1,1,2,2-tetrachloroethane-$d_2$ at 25 °C) for poly(1-tetradecene-$co$-1,13-tetradecadiene) (run 6, after 60 min, 1,13-tetradecadiene 3.7 mol%).