Supporting Information

Highly *cis*-1, 4-selective coordination polymerization of polar 2-(4methoxyphenyl)-1, 3-butadiene and copolymerization with isoprene using β diketiminato yttrium bis(alkyl) complex

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Figure S1 ¹H NMR spectrum of 2-MOPB.

Figure S2 ¹H-¹H COSY spectrum of P(2-MOPB) (Table 1, entry 1)

Figure S3 DEPT 45 spectrum of P(2-MOPB) (Table 1, entry 1)

Figure S4 HSQC spectrum of P(2-MOPB) (Table 1, entry 1)

Figure S5 HMBC spectrum of P(2-MOPB) (Table 1, entry 1)

Figure S6 Thermograms of P(2-MOPB) and P(MOSt-alt-E).

Figure S7 ¹³C NMR spectrum of P(MOSt-*alt*-E).

Figure S8 ¹³C NMR spectra of P(2-MOPB-*co*-IP)s.

Figure S9 GPC traces of copolymers of P(2-MOPB-co-IP)s.

Figure S10 Fineman–Ross plot for copolymerization of 2-MOPB and IP with the ternary catalytic system.

Figure S11 ¹H NMR spectrum of oligomer P(2-MOPB)-1.

Figure S12 ¹H NMR spectrum of oligomer P(2-MOPB)-2.





Figure S2 ¹H-¹H COSY (500 MHz, CDCl₃, 25 °C) spectrum of P(2-MOPB) (Table 1, entry 1)



Figure S4 HSQC spectrum of P(2-MOPB) (Table 1, entry 1)



Figure S5 HMBC spectrum of P(2-MOPB) (Table 1, entry 1)



Figure S6 Thermograms of P(2-MOPB) (curve A) and P(MOSt-alt-E) (curve B).



Figure S7 ¹³C NMR (125 MHz, CDCl₃, 25 °C) spectrum of P(MOSt-*alt*-E).



Figure S8 ¹³C NMR spectra of P(2-MOPB-*co*-IP)s.(Table 1, entries 5-11)



Figure S9 GPC traces of copolymers of P(2-MOPB-co-IP)s (Table 1, entries 4-11)



Figure S10 Fineman–Ross plot for copolymerization of 2-MOPB and IP with the ternary catalytic system



Figure S11 ¹H NMR spectrum of oligomer P(2-MOPB)-1.



Figure S12 ¹H NMR spectrum of oligomer P(2-MOPB)-2.