

Friedel-Crafts Alkylation of Toluene as a Parallel Reaction in Propylene Dimerization Catalyzed by Nickel β -Diimine Complex/EASC in Homogeneous Phase

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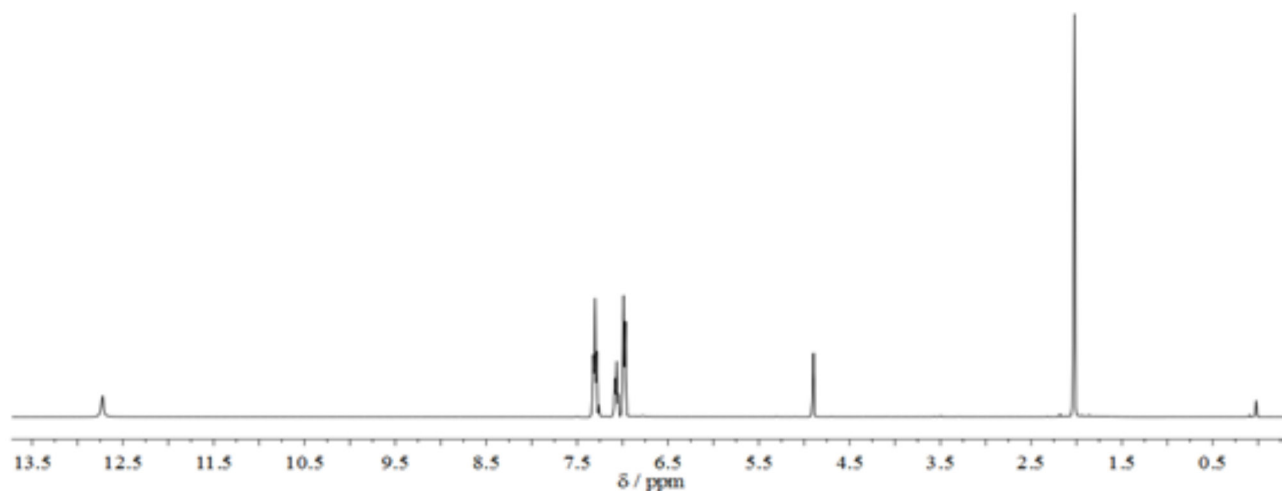


Figure S1. ^1H NMR (400.0 MHz, CDCl_3) spectrum of 4-(phenylamino)-2-(phenylimino)-3-pentene (**L**) ligand.

Spectroscopic data for 4-(phenylamino)-2-(phenylimino)-3-pentene (**L**) ligand (Figure S1): ^1H NMR (400.0 MHz, CDCl_3) δ 12.72 (s, 1H, N-H), 7.30 (t, 4H, J 7.5 Hz, *m*-ArH), 7.06 (t, 2H, J 6.9 Hz, *p*-ArH), 6.98 (d, 4H, J 8.1 Hz, *o*-ArH), 4.90 (s, 1H, α -CH), 2.02 (s, 6H, α -CH₃).

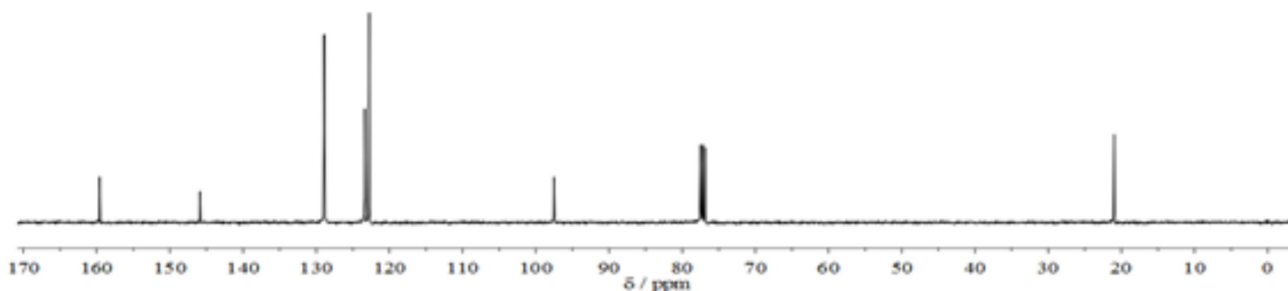


Figure S2. ^{13}C NMR (100.6 MHz, CDCl_3) of 4-(phenylamino)-2-(phenylimino)-3-pentene (**L**) ligand.

Spectroscopic data for 4-(phenylamino)-2-(phenylimino)-3-pentene (**L**) ligand (Figure S2): ^{13}C NMR (100.6 MHz, CDCl_3) δ 159.6, 145.9, 128.9, 123.3, 122.8, 97.5, 21.0.

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†In memoriam

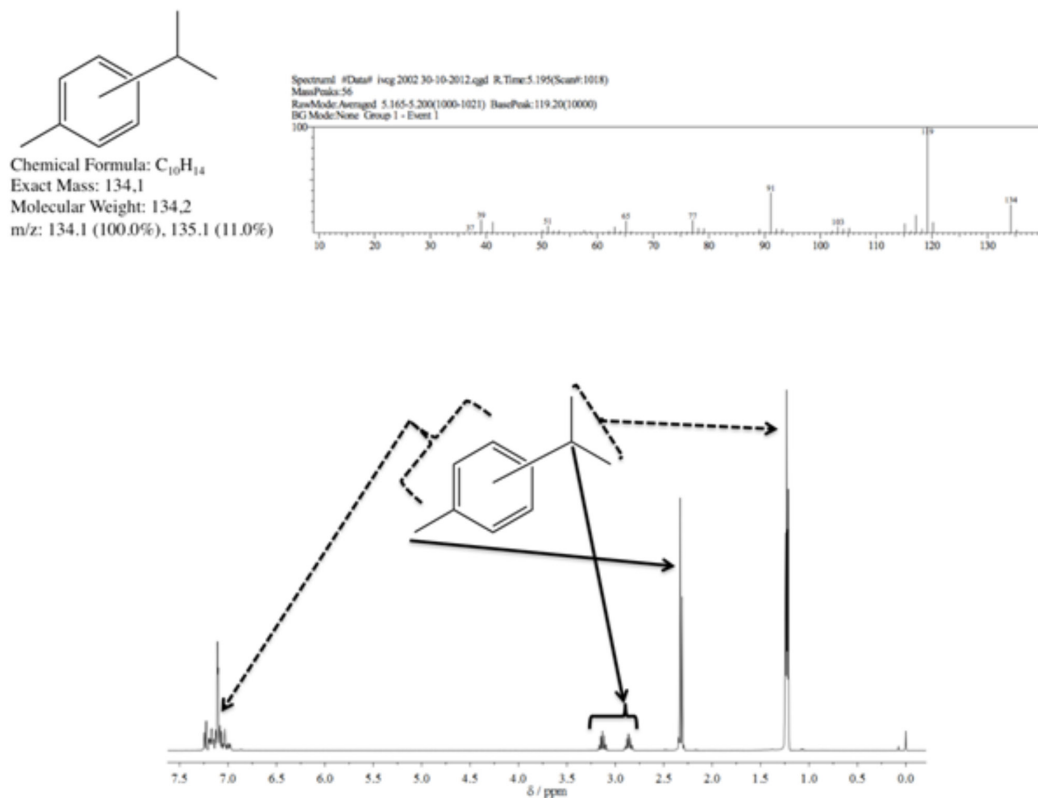


Figure S3. 1H NMR (400.0 MHz, $CDCl_3$) spectrum and GC-MS analysis of the mono-alkylation product of PhMe with propylene.

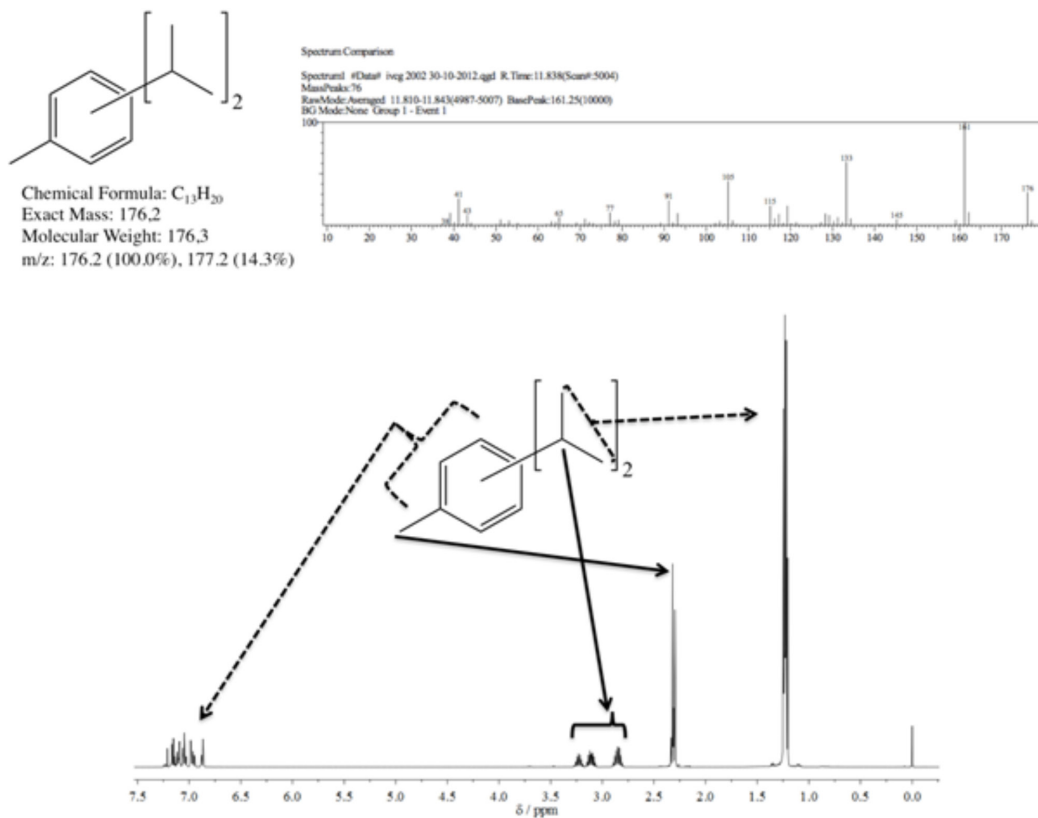


Figure S4. 1H NMR (400.0 MHz, $CDCl_3$) spectrum and GC-MS analysis of the di-alkylation product of PhMe with propylene.