Supplementary Material

Reactivity of β-diketiminato magnesium alkyl complexes: heterocumulenes and phosphanes

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Figure S1. $^1$H NMR spectrum of [(BDI)Mg(MeC{NCy})]$_2$ (3)

$^1$H NMR (500 MHz, ccd, $\delta$ 3.49 (dt, $J = 13.8, 6.8$ Hz, 3H), 2.83 (ddd, $J = 13.8, 10.2, 3.5$ Hz, 3H), 1.59 (d, $J = 11.5$ Hz, 2H), 1.30 (d, $J = 6.8$ Hz, 3H), 1.29 (d, $J = 6.9$ Hz, 4H), 1.21 – 0.91 (m, 3H).
Figure S2. $^{13}$C NMR spectrum of [(BDI)Mg(MeC\{NCy\}_2)] (3).
Figure S3. Thermal ellipsoid plot of [(BDI)Mg(MeC{NCy}2)] (3).
Figure S4. $^1$H NMR spectrum of [(BDI)Mg(BnCNCy)$_2$] (4).
Figure S5. $^{13}$C NMR spectrum of [(BDI)Mg(BnC{NCy$_2$})] (4).
Figure S6. $^1$H NMR spectrum of [(BDI)Mg(PPh$_2$)(THF)] (5).
Figure S7. $^{13}$C NMR spectrum of [(BDI)Mg(PPh$_2$)(THF)] (5).
Figure S8. Thermal ellipsoid plot of [(BDI)Mg(PPh$_2$)(THF)] (5).
Figure S9. $^1$H NMR spectrum of [(BDI)Mg(PC$_2$)(THF)] (6).
Figure S10. $^{13}$C NMR spectrum of [(BDI)Mg(PC$_2$)(THF)] (6).