ELECTRONIC SUPPORTING INFORMATION

For

Synthesis and Structural Characterization of Amido Scorpionate Rare Earth Metals Complexes

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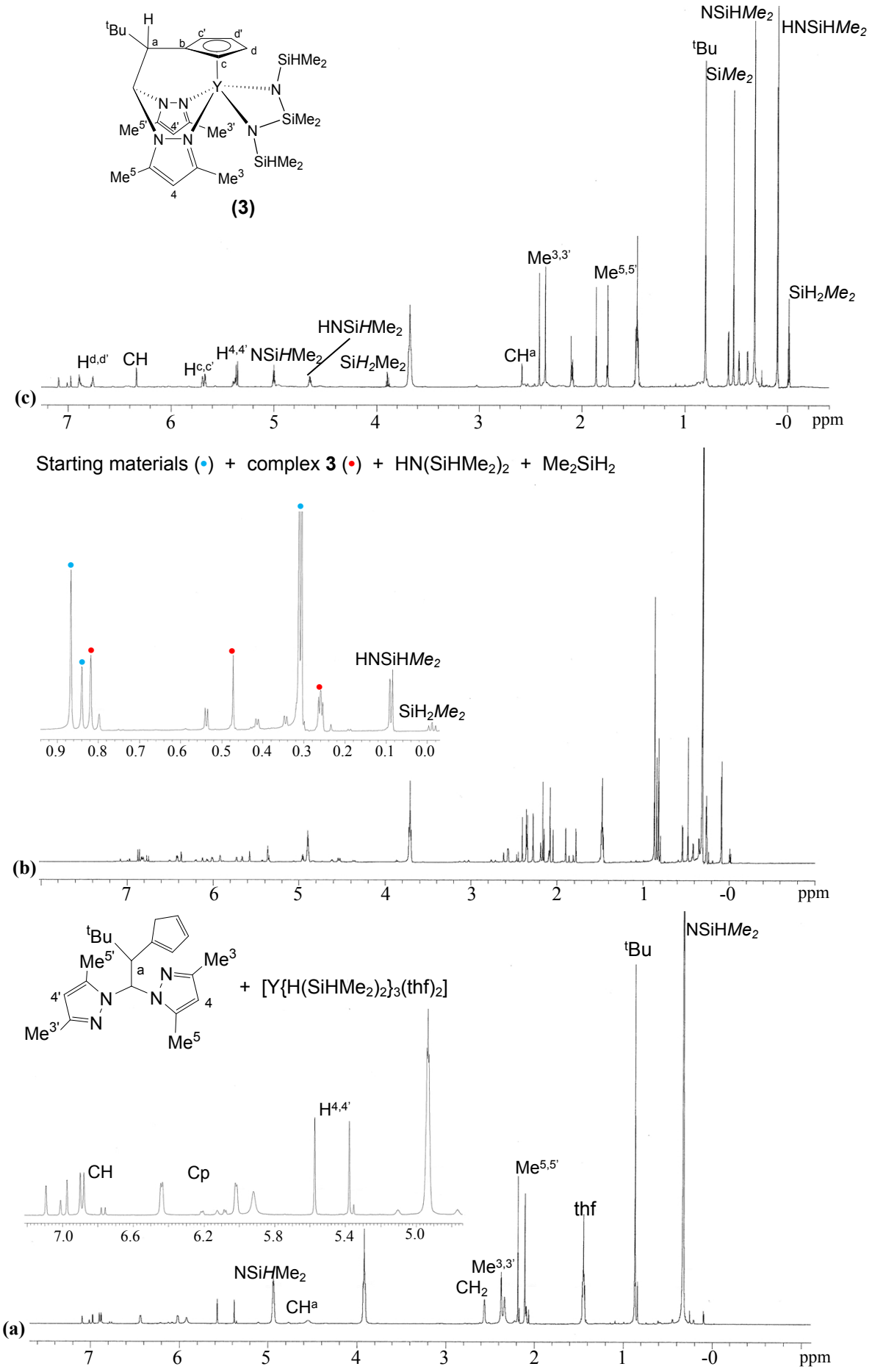

Figure S1. (a) ^{1}H NMR spectrum of reaction mixture of bpztcpH and [Y{N(SiHMe$_2$)$_2$}$_3$(thf)$_2$] in toluene-d_8 at 25 ºC. (b) ^{1}H NMR spectrum of reaction mixture after 3 h at 60 ºC in toluene-d_8. (c) ^{1}H NMR spectrum of reaction mixture after 15 h at 60 ºC in toluene-d_8.

Table S1. Crystal data and structure refinement for **1**, **3**·C_7H_8 and **5**·C_7H_8.

	1	**3**·C_7H_8	**5**·C_7H_8
Empirical formula	$C_{35}H_{49}N_6Si_3Y$	$C_{30.5}H_{53}N_6Si_3Y$	$C_{44}H_{65}N_6NdSi_4$
Formula weight	726.98	676.97	934.62
Temperature (K)	180(2)	180(2)	180(2)
Wavelength (Å)	0.71073	0.71073	0.71073
Crystal system	Monoclinic	Monoclinic	Monoclinic
Space group	P 2_1/n	C 2/c	P 2_1/c
a(Å)	13.609(7)	24.434(2)	17.107(7)
b(Å)	17.854(3)	9.9080(7)	17.353(3)
c(Å)	16.652(3)	31.4640(10)	16.089(6)
β(°)	108.76(2)	105.003(4)	98.231(13)
Volume(Å^3)	3831(2)	7357.5(8)	4727(3)
Z	4	8	4
Density (calculated) (g/cm^3)	1.260	1.222	1.313
Absorption coefficient (mm^{-1})	1.648	1.711	1.236
F(000)	1528	2872	1948
Crystal size mm^3	0.38 x 0.30 x 0.17	0.27 x 0.18 x 0.12	0.52 x 0.44 x 0.11
Index ranges	-16≤h≤17 -22≤k≤20 -20≤l≤20	-28≤h≤28 -11≤k≤11 -37≤l≤37	-20≤h≤20 -20≤k≤16 -19≤l≤19
Reflections collected	26465	35070	28922
Independent reflections	7822 [R(int) = 0.1502]	6293 [R(int) = 0.0000][a]	8104 [R(int) = 0.2220]
Data / restraints / parameters	7822 / 2 / 424	6293 / 2 / 355	8104 / 4 / 524
Goodness-of-fit on F^2	0.863	0.994	0.843
Final R indices [$I>2\sigma(I)$]	R1 = 0.0553 wR2 = 0.1053	R1 = 0.0767 wR2 = 0.1523	R1 = 0.0629 wR2 = 0.1109
Largest diff. peak and hole (e.Å^{-3})	0.521 and -1.738	0.671 and -0.619	1.457 and -1.108

[a] The value of R(int) = 0.000 was caused by the application of Squeeze.