

Manuscript for Dalton Transactions: ESI (30/08/2005)

## Synthesis, Structure and Hydrosilylation Activity of Neutral and Cationic Rare-Earth Metal Silanolate Complexes

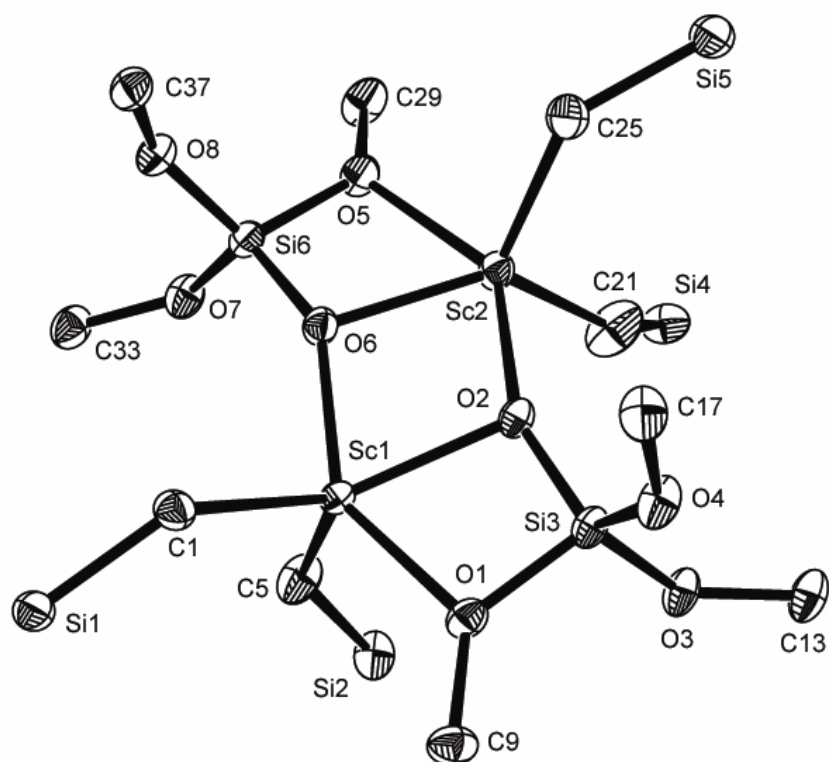
Benjamin R. Elvidge, Stefan Arndt, Thomas P. Spaniol and Jun Okuda\*

### Electronic Supplementary Information

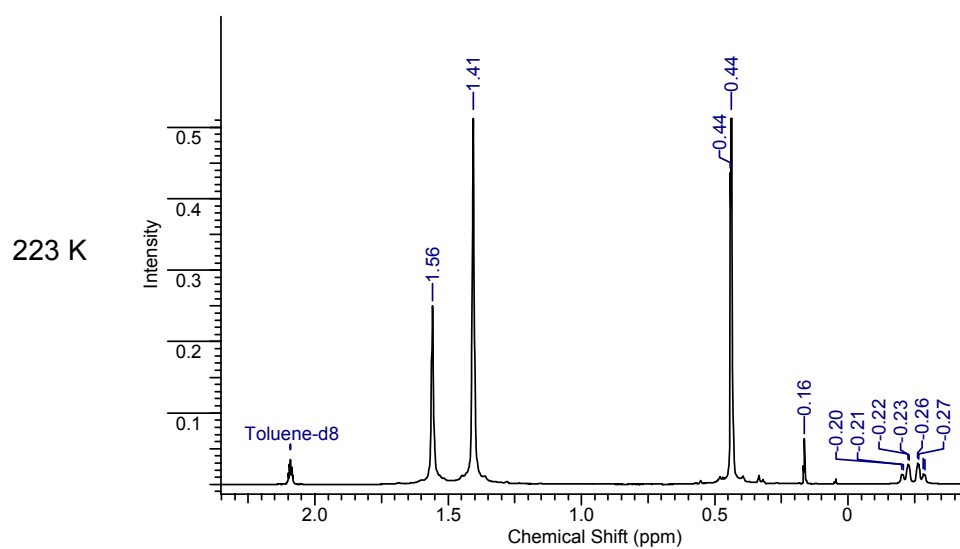
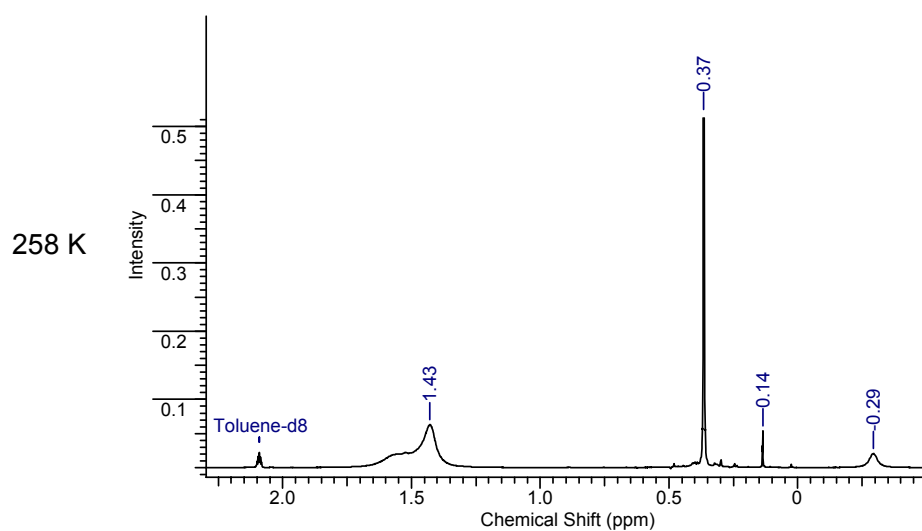
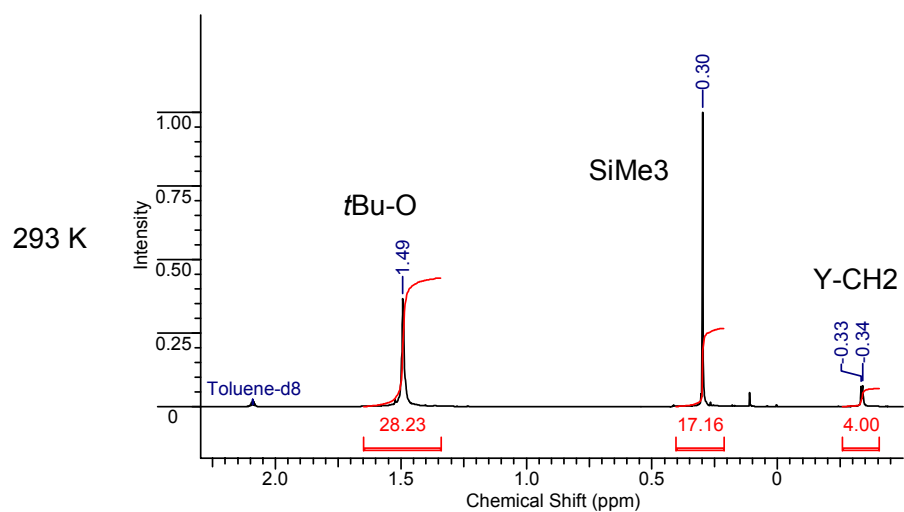
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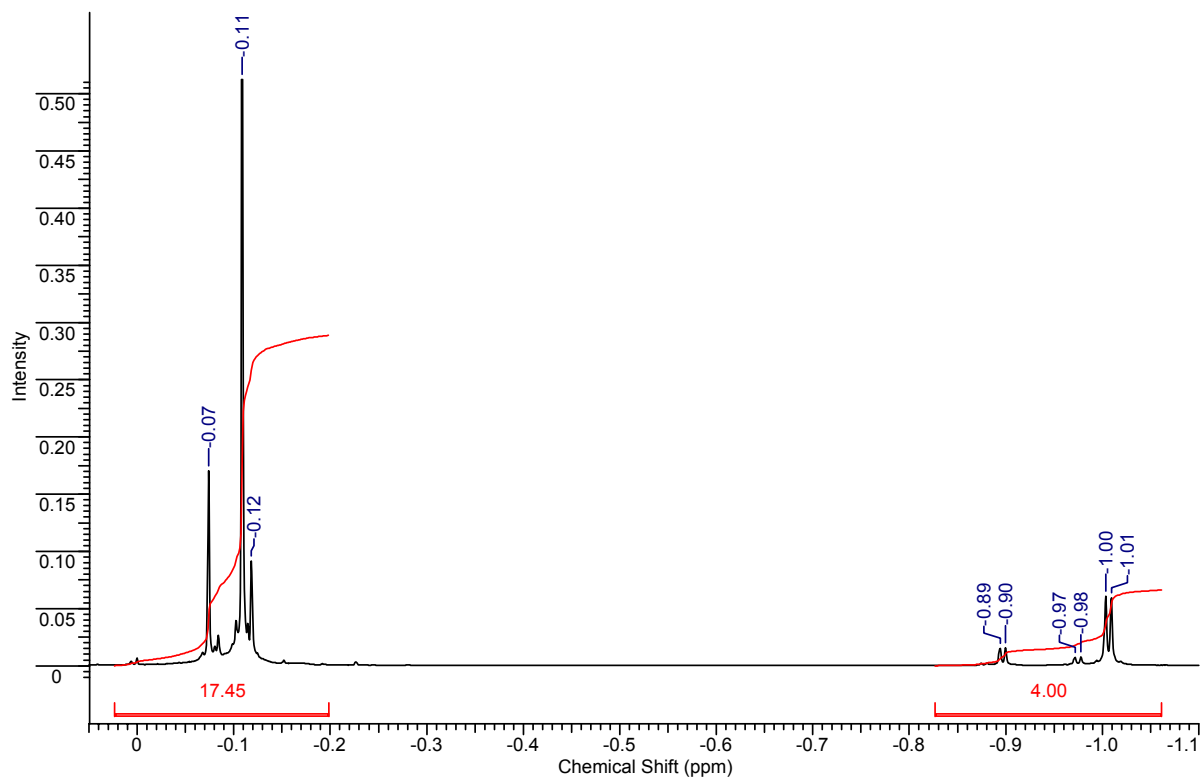
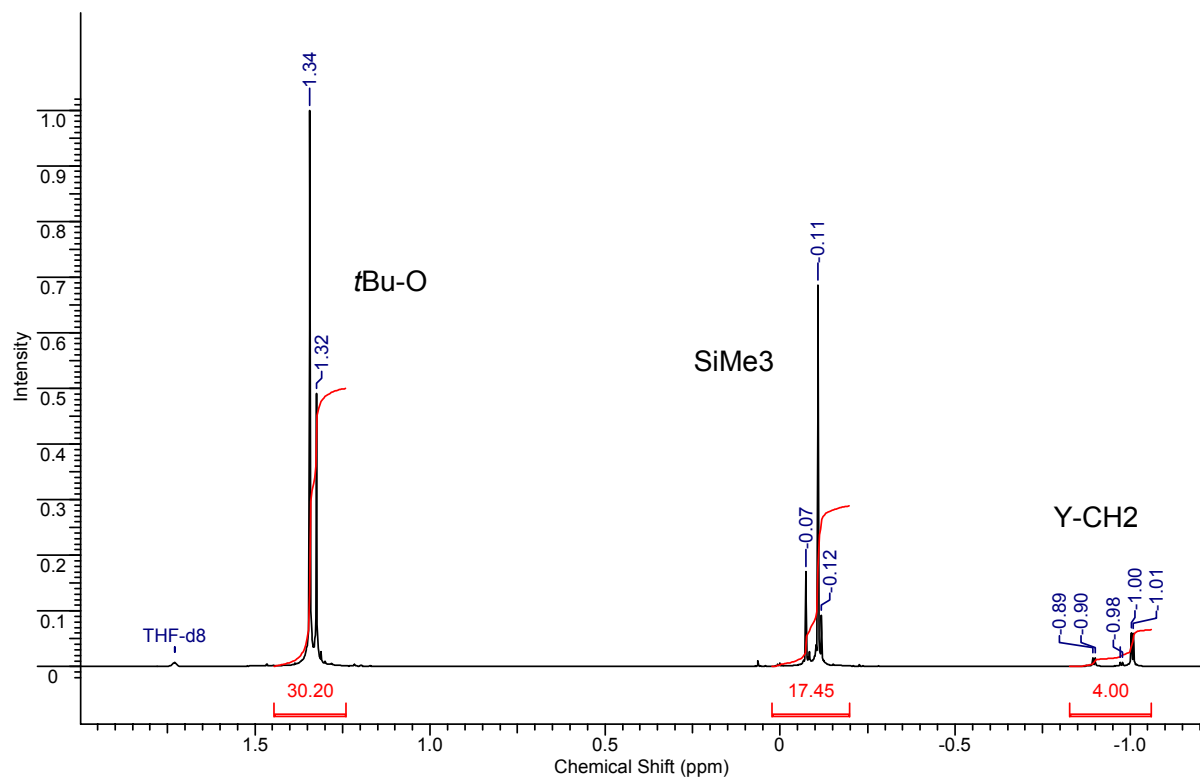
Molecular structure of  $[\text{Sc}\{\text{OSi}(\text{O}^t\text{Bu})_3\}(\text{CH}_2\text{SiMe}_3)_2]$  (ellipsoids drawn at the 50% probability level, hydrogen atoms and methyl groups omitted for clarity)



Selected VT  $^1\text{H}$  NMR Spectra of **1** ( $\text{C}_7\text{D}_8$ )



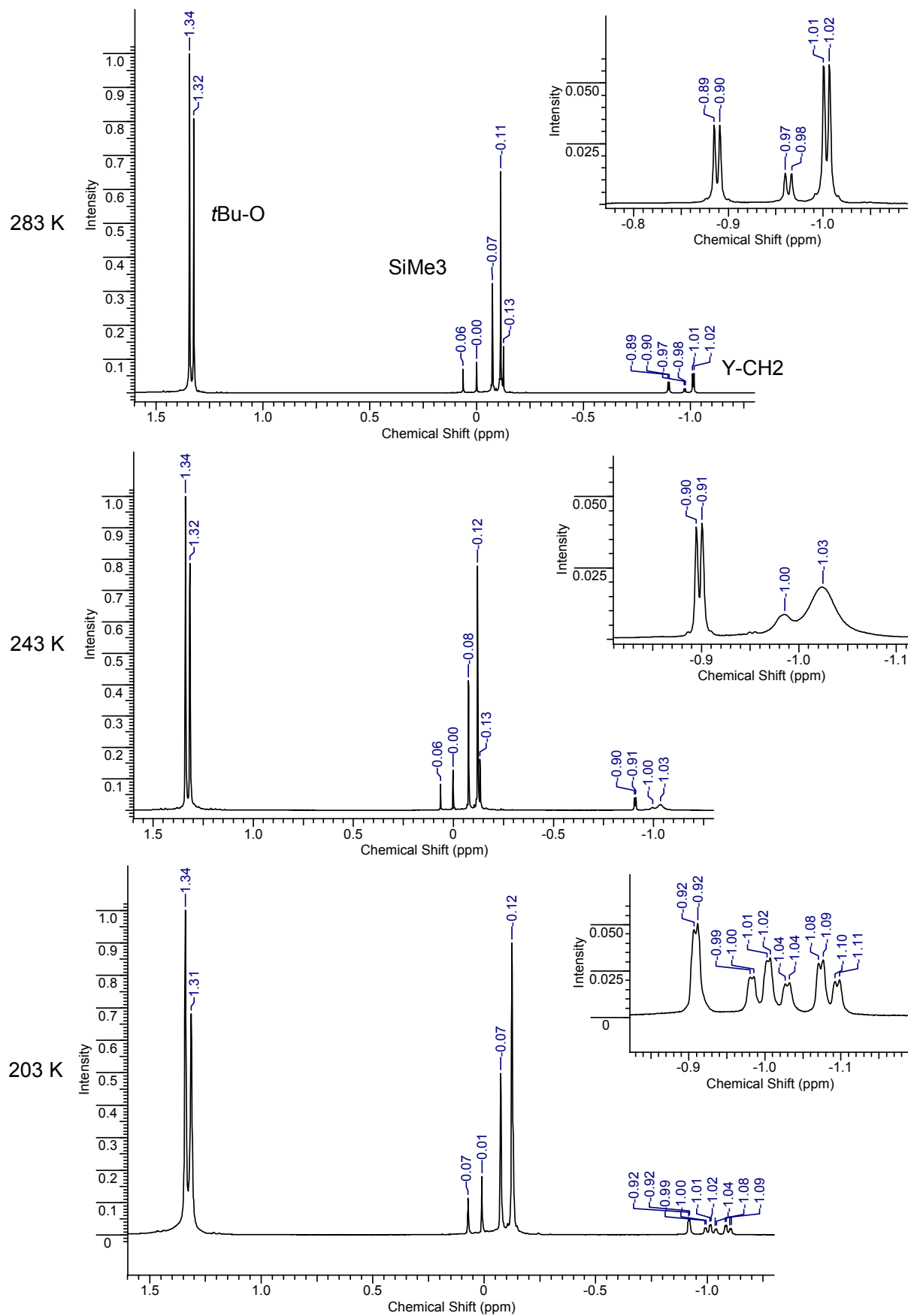
$^1\text{H}$  NMR Spectrum of **1** (thf- $d_8$ )

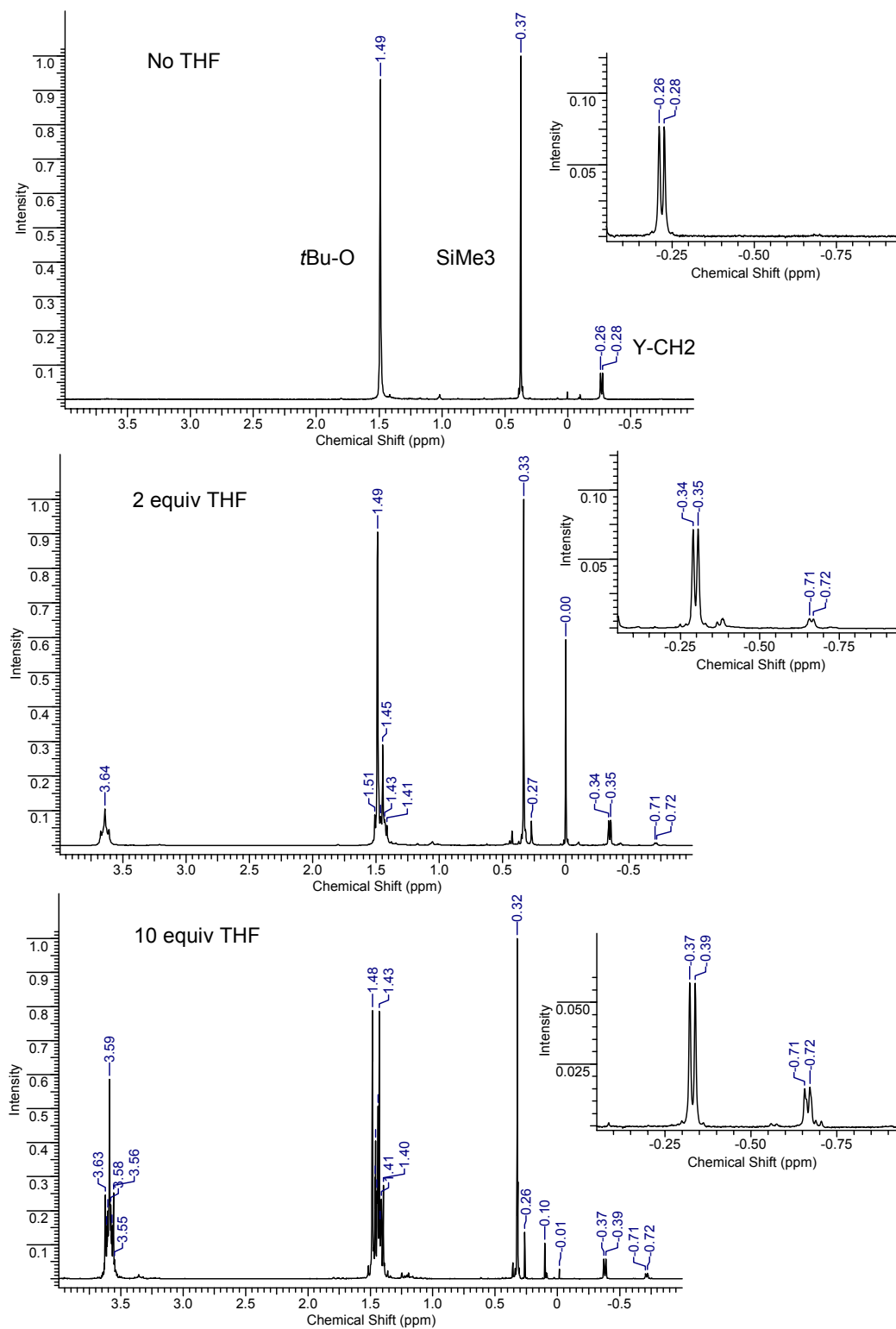


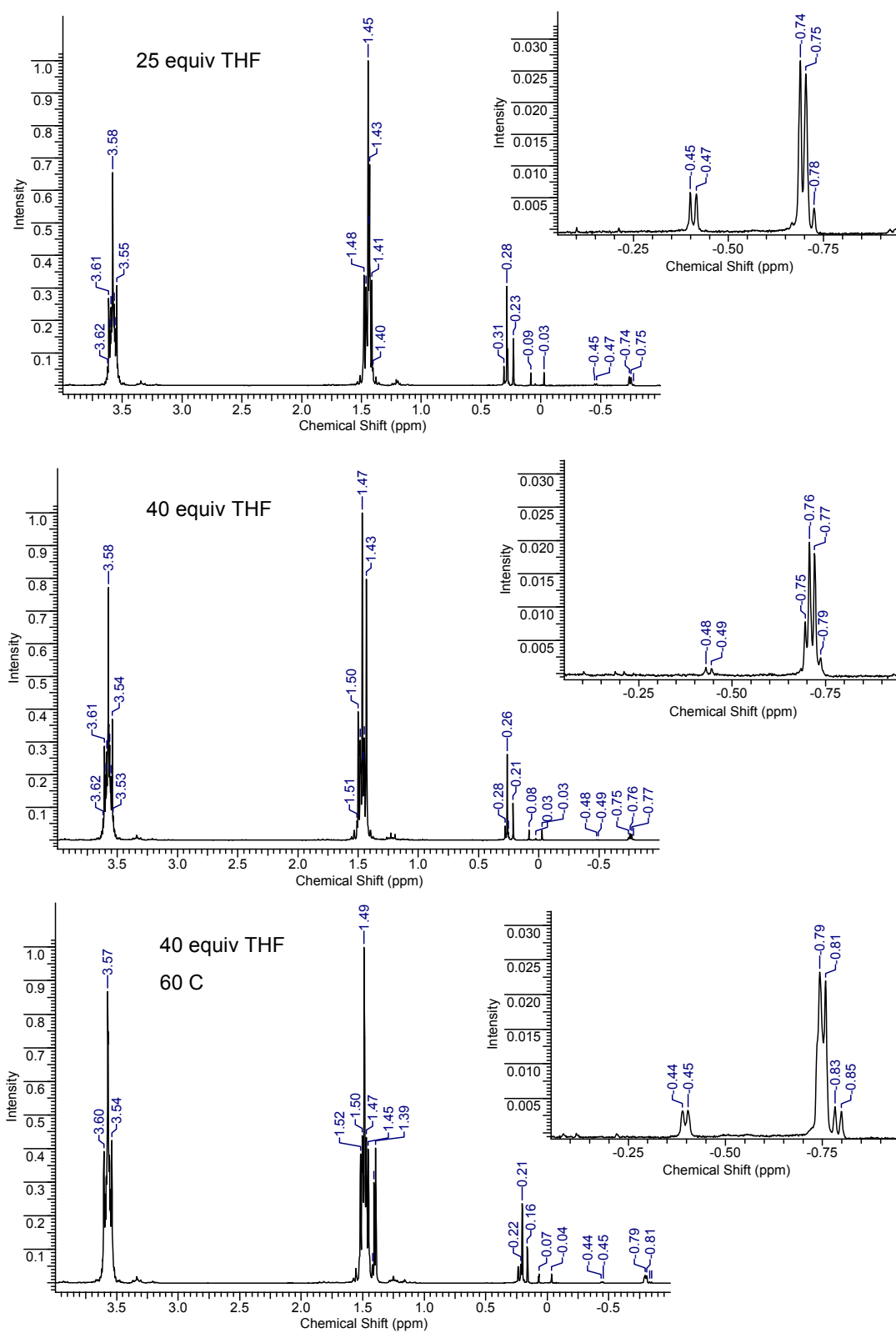
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Selected VT  $^1\text{H}$  NMR Spectra of **1** (thf- $d_8$ )

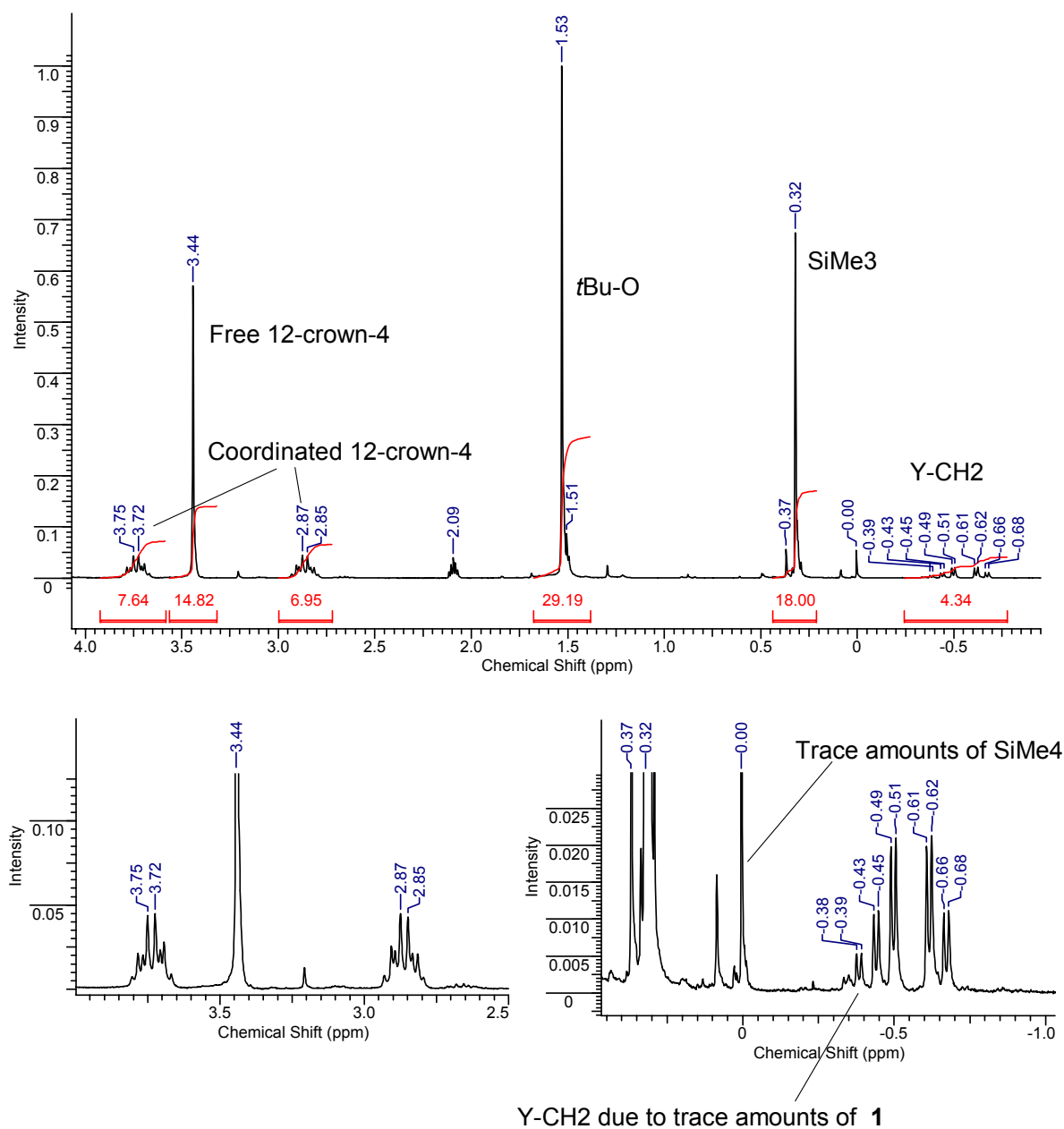


Sequential addition of thf to **1** (C<sub>6</sub>D<sub>6</sub>)





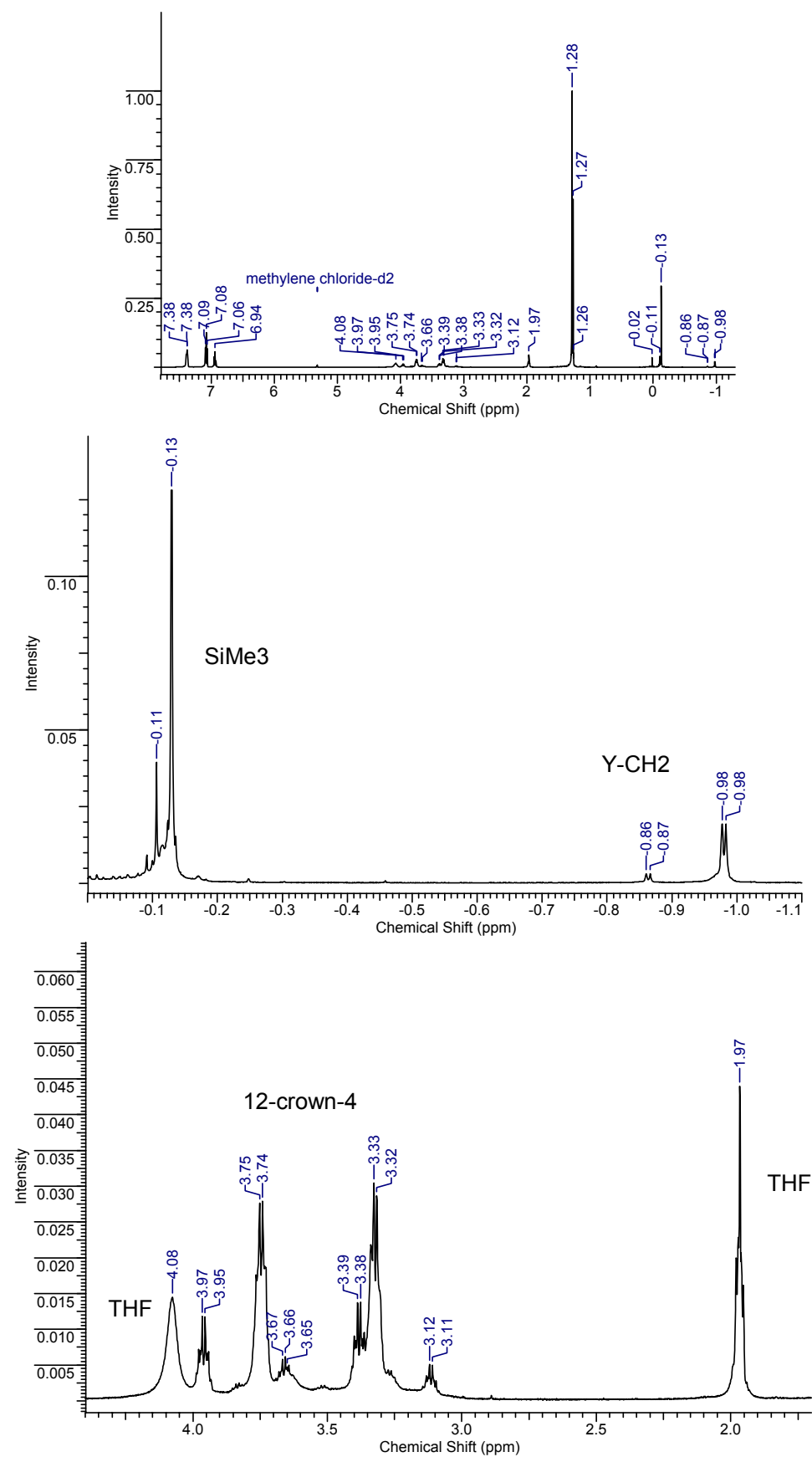
$^1\text{H}$  NMR Spectrum of **4** ( $\text{C}_7\text{D}_8$ )



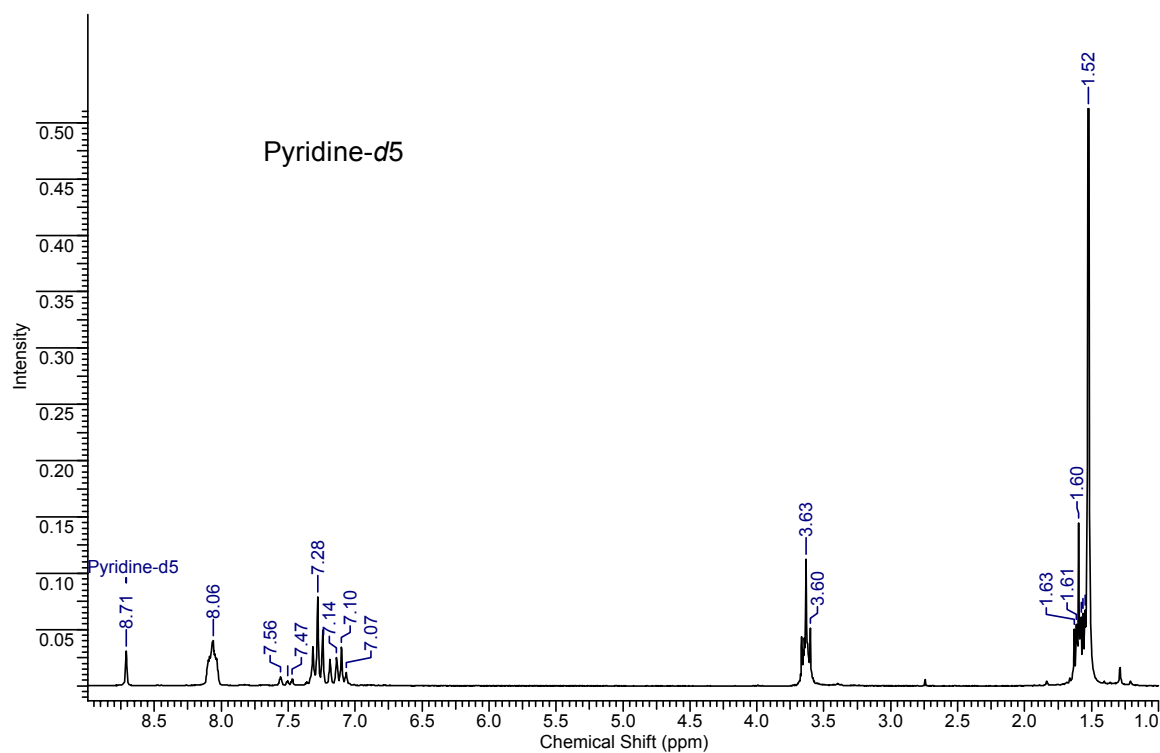
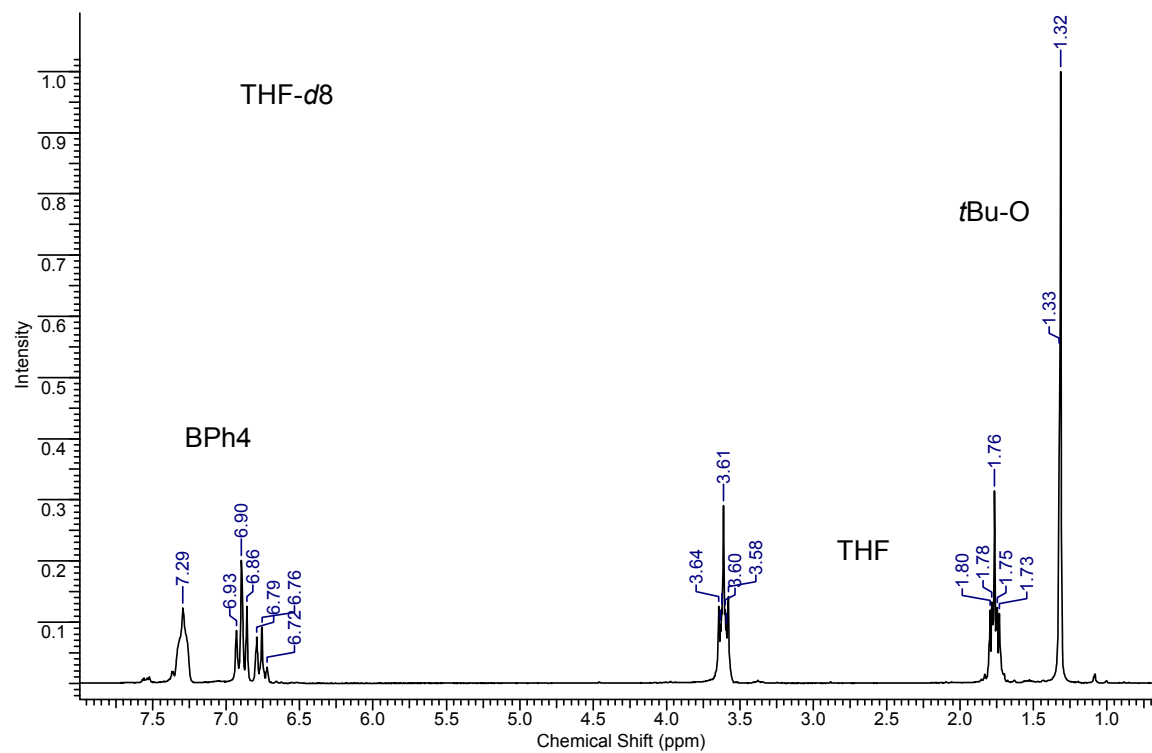
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$^1\text{H}$  NMR Spectra of **9** ( $\text{CD}_2\text{Cl}_2$ )



$^1\text{H}$  NMR Spectrum of **16** (thf- $d_8$  and  $\text{C}_5\text{D}_5\text{N}$ )



Time-conversion plot for Hydrosilylation of 1-decene using **1** as catalyst

