

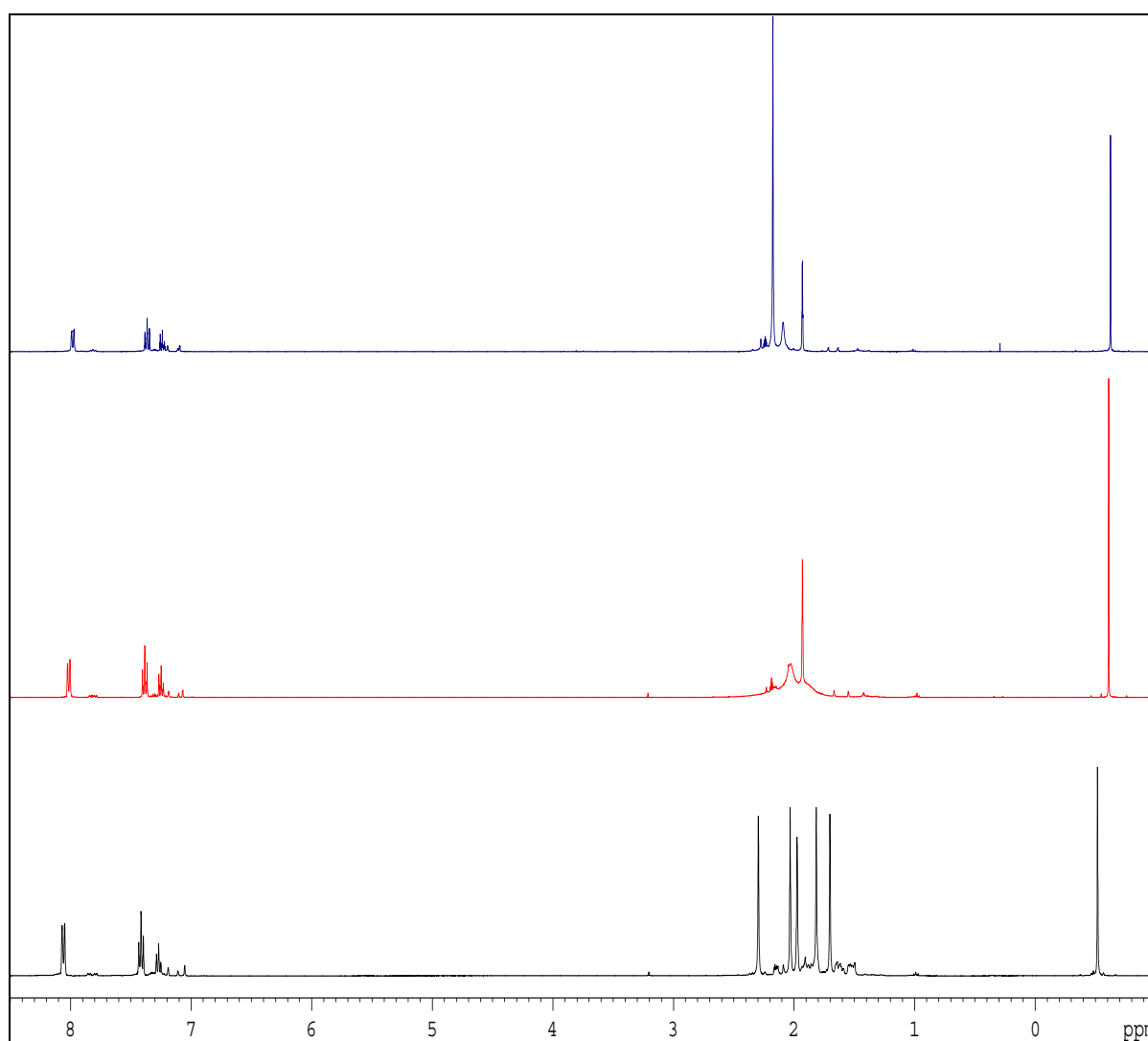
New Insights into Addition Reactions of Dialkylzinc Reagents to Trifluoromethyl Ketones: Structural Authentication of a β -hydride Elimination Product Containing a Tetranuclear Zinc Chain.

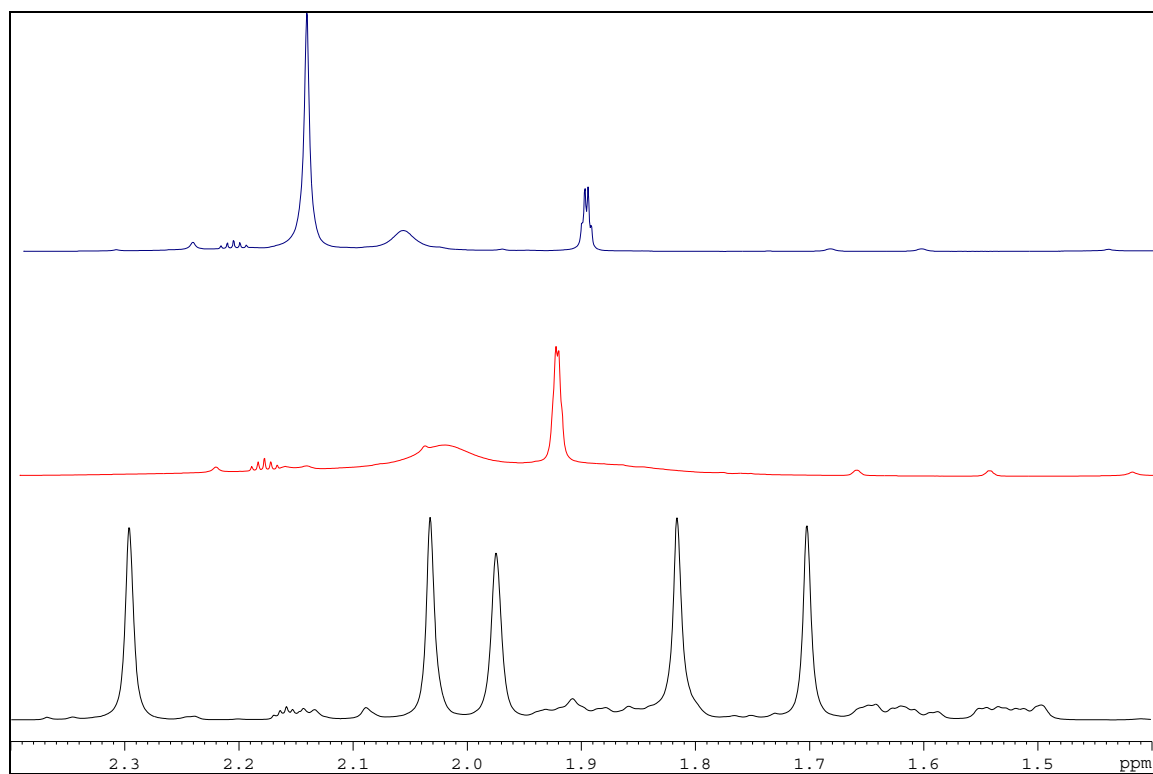
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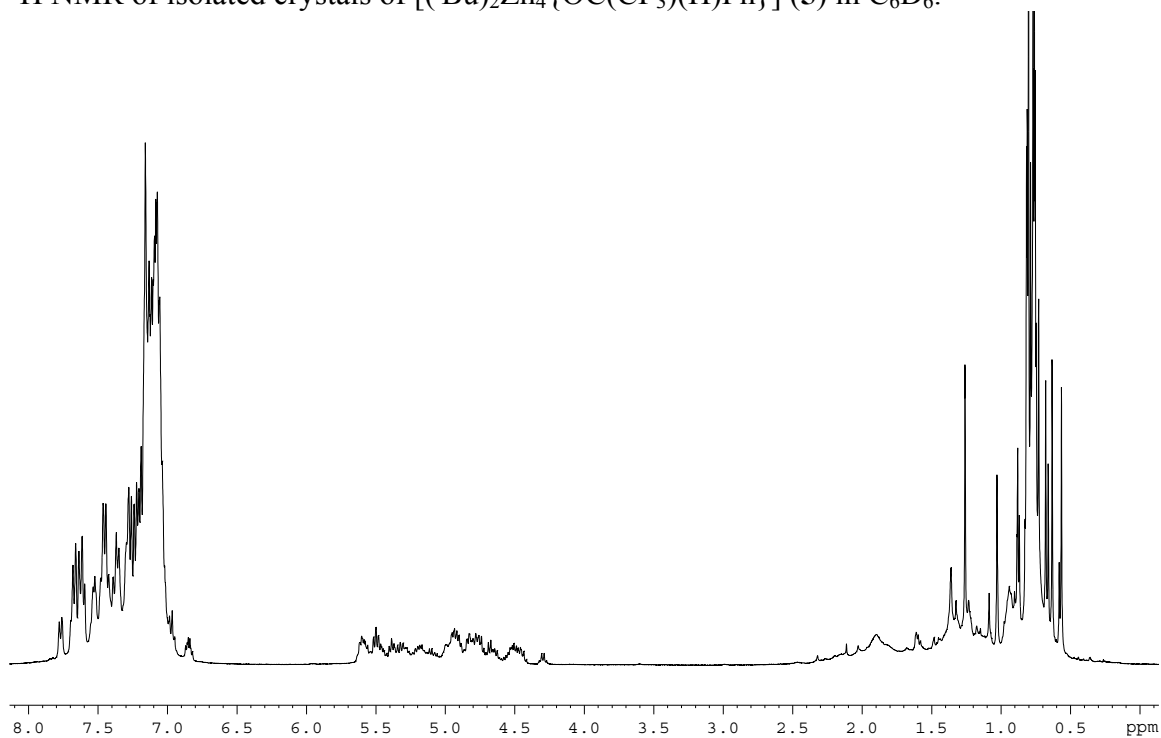
NMR spectra

Variable T ^1H NMR spectra of $[(\text{TMEDA})\text{Zn}(\text{Me})\{\text{OC}(\text{CF}_3)(\text{Me})\text{Ph}\}]$ (**2**) in deuterated toluene. (Black = -35°C ; Red = 25°C ; Blue = 80°C)

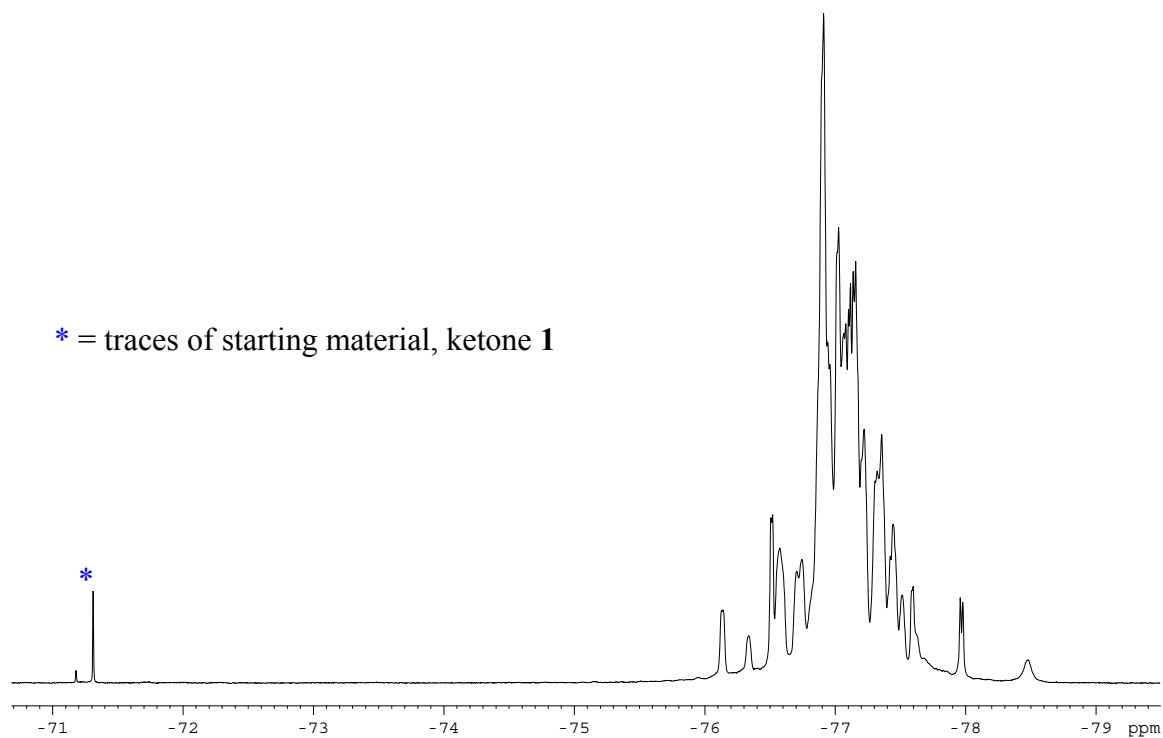




^1H NMR of isolated crystals of $[(^t\text{Bu})_2\text{Zn}_4\{\text{OC}(\text{CF}_3)(\text{H})\text{Ph}\}]$ (**5**) in C_6D_6 .

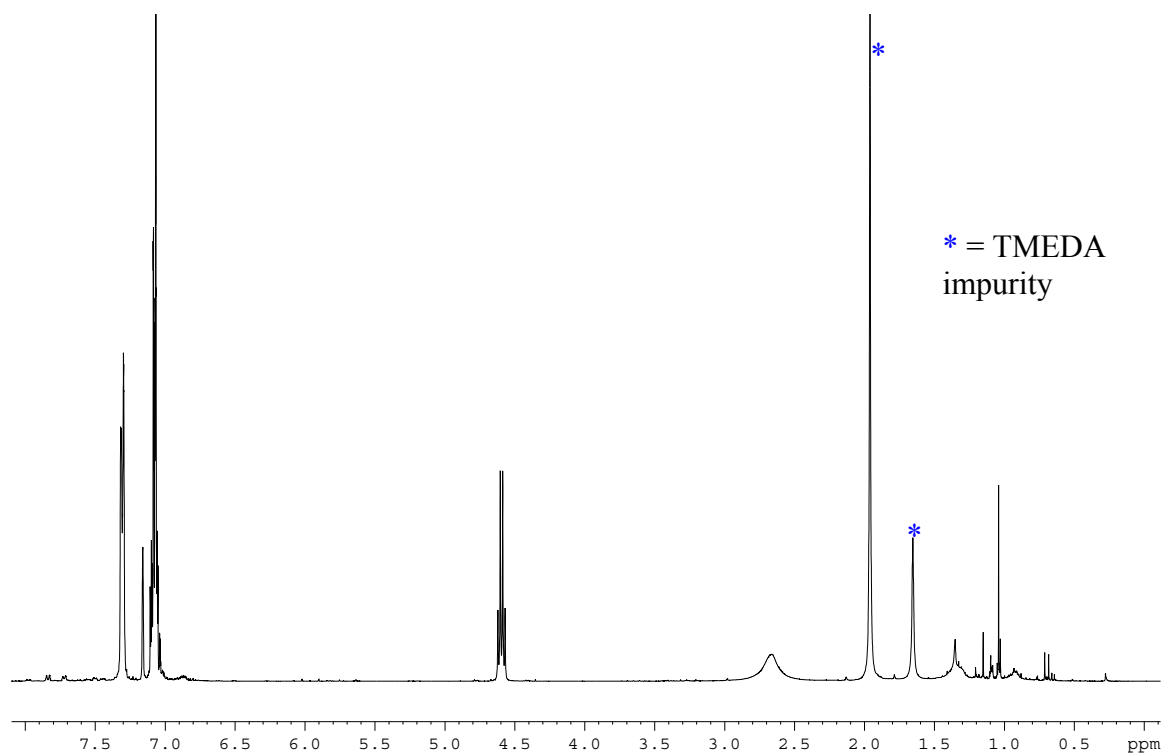


$^{19}\text{F}\{^1\text{H}\}$ NMR of isolated crystals of $[(^t\text{Bu})_2\text{Zn}_4\{\text{OC}(\text{CF}_3)(\text{H})\text{Ph}\}]$ (**5**) in C_6D_6 .



^1H NMR of quenched product (crude), alcohol $\text{PhC}(\text{H})(\text{CF}_3)\text{OH}$ (**6**) in C_6D_6 ¹

1. This ^1H NMR spectrum relates to a sample obtained by the treatment of isolated crystals of $[(\text{TMEDA})\text{Zn}(^t\text{Bu})\{\text{OC}(\text{H})\text{Ph}(\text{CF}_3)\}]$ (**4**) with a saturated aqueous solution of NH_4Cl , which explains the presence of small amounts of TMEDA as an impurity in this crude NMR spectrum.



$^{19}\text{F}\{^1\text{H}\}$ NMR of quenched product, alcohol $\text{PhC}(\text{H})(\text{CF}_3)\text{OH}$ (**6**) in C_6D_6 .

