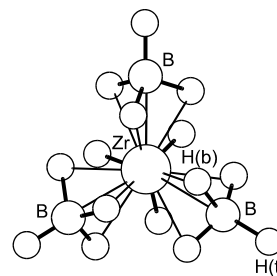
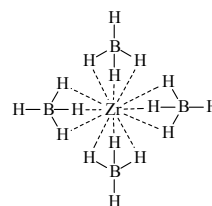


75 $\text{B}_4\text{H}_{16}\text{Zr}$ ED, vibrational spectroscopy,
DFT calculations**Tetrakis(tetrahydroborato- $\kappa\text{H}, \kappa\text{H}'', \kappa\text{H}'''$)zirconium(IV)****T**

Zirconium(IV) tetrakis(tetrahydroborate)

r_a	\AA^a	θ_a	deg^a
Zr...B	2.324(5)	Zr–B–H(b)	65.6(3)
Zr...H(b)	2.144(6)	H(b)–B–H(b)	104.2(4)
B–H(b)	1.278(8)	H(b)–B–H(t)	114.4(3)
B–H(t)	1.188(17)	B...Zr...B–H(b)	45(2)

The nozzle temperature was 22(2) °C.

The barrier to concerted rotation of the four BH_4 groups into a staggered orientation was calculated by ADF-ZORA to be only 1.0 kJ mol^{−1}.^a) 2.5 times the estimated standard errors including a systematic error.Haaland, A., Shorokhov, D.J., Tutukin, A.V., Volden, H.V., Swang, O., McGrady, G.S., Kaltsoyannis, N., Downs, A.J., Tang, C.Y., Turner, J.F.C.: Inorg. Chem. **41** (2002) 6646.Replaces [II/25A\(2, 141\)](#)