

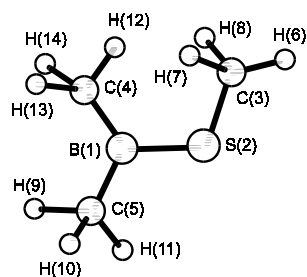
1381  
ED

**C<sub>3</sub>H<sub>9</sub>BS**

**Dimethyl(methylthio)borane**

probably C<sub>s</sub> (skeleton)  
H<sub>3</sub>C–S–B(CH<sub>3</sub>)<sub>2</sub>

$r_a$	Å <sup>a)</sup>	$\theta_a$	deg <sup>a)</sup>
C–H <sup>b)</sup>	1.092(4)	B–S–C	107.2(10)
C–B	1.570(4)	S–B–C(4)	124.0(8)
S–B	1.779(5)	S–B–C(5)	115.3(6)
S–C	1.825(4)	B–C–H	111.7 <sup>c)</sup>
		S–C–H	111.7 <sup>c)</sup>
		$\phi_1$ <sup>d)</sup>	0 <sup>c)</sup>
		$\phi_2$ <sup>e)</sup>	–5 <sup>c)</sup>
		$\phi_3$ <sup>f)</sup>	–30 <sup>c)</sup>
		$\phi_4$ <sup>g)</sup>	180 <sup>c)</sup>



The skeleton is probably planar, though values of the torsional angle about the B–S bond up to about 25° are possible.

The nozzle temperature was about 20 °C.

<sup>a)</sup> Estimated standard errors including a systematic error.

<sup>b)</sup> Average value.

<sup>c)</sup> Not refined in the least-squares analysis.

<sup>d)</sup> The effective dihedral angle C(4)–B–S–C(3).

<sup>e)</sup> The effective dihedral angle S–B–C(4)–H(12).

<sup>f)</sup> The effective dihedral angle S–B–C(5)–H(11).

<sup>g)</sup> The effective dihedral angle B–S–C(3)–H(6).

Brendhaugen, K., Wisløff Nilssen, E., Seip, H.M.: Acta Chem. Scand. **27** (1973) 2965.