

1460  
IR

C<sub>4</sub>

Tetracarbon

**D<sub>∞h</sub>**  
C=C=C=C or C≡C–C≡C

$r_0$	$\text{\AA}^a)$
C=C	1.301593(81) <sup>a)</sup>

In [1], it was assumed that all C–C bonds are of identical length, whereas *ab initio* calculations [2,3] predict two different values, differing by up to 0.02 Å. The experimental evidence strongly supports a linear cumulenic structure. It is unlikely that the bend angle is greater than 6°. A new experiment [4] confirms the linearity but changes by one unit the *N*-assignment, giving a slightly larger *B*<sub>0</sub> value, from which we have calculated a new C–C distance.

<sup>a)</sup> Three times the estimated standard error.

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- [3] Parasuk, V., Almlöf, J.: J. Chem. Phys. **94** (1991) 8172.
- [4] Moazzen-Ahmadi, N., Thong, J.J., McKellar, A.R.W.: J. Chem. Phys. **100** (1994) 4033.