Standard Bond Lengths

All bond lengths are expressed in Angstrom (Å) units. Bond lengths are obtained from ground-state B3LYP/cc-pVDZ calculations of the simple molecules H_mX-YH_n, H_mX=YH_n, and $H_mX{\equiv}YH_n$. (1 Å = 100 pm = 10^{-10} m)

Single Bonds

	H	C	N	O	F	Si	P	S	Cl	Br
H	0.76									
C	1.10	1.53								
N	1.03	1.46	1.44							
O	0.97	1.42	1.43	1.46						
F	0.93	1.38	1.43	1.44	1.41					
Si	1.50	1.89	1.76	1.69	1.65	2.36				
P	1.44	1.88	1.79	1.70	1.65	2.29	2.26			
S	1.36	1.84	1.74	1.73	1.67	2.18	2.17	2.17		
Cl	1.30	1.80	1.79	1.74	1.68	2.10	2.12	2.09	2.05	
Br	1.43	1.96	1.94	1.87	1.80	2.26	2.28	2.24	2.19	2.34

Double Bonds

	C	N	O	Si	P	S
C	1.33					
N	1.27	1.24				
O	1.20	1.20	[a]			
Si	1.72	1.62	1.56	2.18		
P	1.67	1.59	1.51	2.09	2.05	
S	1.62	1.59	1.53	1.97	1.96	1.94

[a] O=O is not ground-state dioxygen.

Triple Bonds

	C	N	Si	P	O	S
C	1.21				1.14	1.55
N	1.16	1.17				
Si	1.66	1.58	2.24		1.54	1.96
P	1.55	1.50	1.97	1.91		