

<i>Bond-Dissociation Energy</i>		<i>Bond-Dissociation Energy</i>	
<i>Bond</i>	<i>kcal/mol</i>	<i>Bond</i>	<i>kcal/mol</i>
H—X bonds and X—X bonds		Bonds to secondary carbons	
H—H	104	(CH ₃) ₂ CH—H	95
D—D	106	(CH ₃) ₂ CH—F	106
F—F	38	(CH ₃) ₂ CH—Cl	80
Cl—Cl	58	(CH ₃) ₂ CH—Br	68
Br—Br	46	(CH ₃) ₂ CH—I	53
I—I	36	(CH ₃) ₂ CH—OH	91
H—F	136	Bonds to tertiary carbons	
H—Cl	103	(CH ₃) ₃ C—H	91
H—Br	88	(CH ₃) ₃ C—F	106
H—I	71	(CH ₃) ₃ C—Cl	79
HO—H	119	(CH ₃) ₃ C—Br	65
HO—OH	51	(CH ₃) ₃ C—I	50
Methyl bonds		(CH ₃) ₃ C—OH	91
CH ₃ —H	104	Other C—H bonds	
CH ₃ —F	109	PhCH ₂ —H (benzylic)	85
CH ₃ —Cl	84	CH ₂ =CHCH ₂ —H (allylic)	87
CH ₃ —Br	70	CH ₂ =CH—H (vinyl)	108
CH ₃ —I	56	Ph—H (aromatic)	110
CH ₃ —OH	91	C—C bonds	
Bonds to primary carbons		CH ₃ —CH ₃	88
CH ₃ CH ₂ —H	98	CH ₃ CH ₂ —CH ₃	85
CH ₃ CH ₂ —F	107	CH ₃ CH ₂ —CH ₂ CH ₃	82
CH ₃ CH ₂ —Cl	81	(CH ₃) ₂ CH—CH ₃	84
CH ₃ CH ₂ —Br	68	(CH ₃) ₂ C—CH ₃	81
CH ₃ CH ₂ —I	53		
CH ₃ CH ₂ —OH	91		
CH ₃ CH ₂ CH ₂ —H	98		
CH ₃ CH ₂ CH ₂ —F	107		
CH ₃ CH ₂ CH ₂ —Cl	81		
CH ₃ CH ₂ CH ₂ —Br	68		
CH ₃ CH ₂ CH ₂ —I	53		
CH ₃ CH ₂ CH ₂ —OH	91		