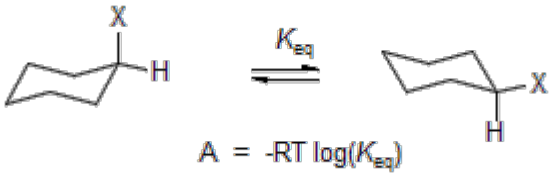
Conformational Energies (A-Values)



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10. (a) The A-values for $OSiR_3$ are unusually sensitive to solvent. These values in CD_2Cl_2 from low-temperature ^{13}C NMR: Eliel, E. L.; Satici, H. *J. Org. Chem.* **1994**, *59*, 688. (b) Marzabadi, C. H.; Anderson, J. E.; Gonzalez-Outeirino, J.; Gaffney, P. R. J; White, C. G. H; Tocher, D. A.; Todaro, L. J. *J. Am. Chem. Soc.* **2003**, *125*,15163.

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12. Using the "counterpoise" method: low-temperature NMR of 4-methylcyclohexyl derivatives.

Group	A-Value (kcal/mol)	Group	A-Value (kcal/mol)
Me	1.70	Et	1.75
CF_3	2.1	$CH=CH_2$	1.35, 1.68[8]
C≡N	0.17, 0.24[2a], 0.21[9]	C≡C-H	0.41[2a], 0.52[9]
CH_2CMe_3	2.0	CH_2OTs	1.75
i-Pr	2.15	c-Hexyl	2.15
t-Bu	>4.5	Ph	3.0
CO_2^-*	1.92	CO_2H*	1.35
CO_2Me	1.27, 1.31[2a]	CO_2iPr	1.20
C(=O)H	0.8	C(=O)Cl	1.25
C(=O)Me	1.17	-	-
D	0.008[1]	T	0.011
F	0.15, 0.28[2a], 0.36[9]	Cl	0.43, 0.53[2a], 0.51[9]
Br	0.38, 0.48[2a9]	I	0.43, 0.47[2a], 0.49[9]
O-Me	0.60, 0.75[9]	$O-CD_3$	0.56, 0.55[2a]
O-Et	0.9	O-H*	0.87, 1.0[9]
O-Ac	0.6, 0.71[2a], 0.79[9]	$O-C(=O)CF_3$	0.68, 0.58[9]
O-CHO	0.27, 0.59[2a], 0.62[9]	O-Ts	0.50, o.52[2a], 0.48[9]
O-Ms	0.56[2a]	$O-NO_2$	0.59
$O-SiMe_3$	0.74[9], 1.31[10], 0.80[11]	$O-Si^iPr_3$	0.51[9], 0.94[10]
$O-SiMe_2tBu$	1.06[10]	$O-SiPh_2tBu$	0.56[10]
S-H	1.17[2a], 1.22[9]	S^-	1.3
S-C≡N	1.23[2a]	S-Me	0.7, 1.07[2a], 1.1[2a]
S-Ph	0.8	-	-
S(O)Ph	1.9	S(O)Me	1.2
$S(O)_2Ph$	2.5	$S(O)_2Me$	2.5
Se-Ph	1.1[3]	Te-Ph	0.9
NH_2*	1.2-1.7, 1.23[9]	NHMe*	1.0
NMe_2	2.1	NH_3^+	1.9
$NHSiMe_3$	1.21[11]		
N_3	0.62[9]	NO_2	1.05[2a], 1.13[9]
PH_2	1.6[4,12]	PMe_2	1.5[4,12]
PCl_2	1.9[4,12]	$P(OMe)_2$	1.5[4,12]
PMe_3^+	>3.0[4,12]	$P(S)Me_2$	>3.0[4,12]
$P(O)Ph_2$	2.6[5]	-	-
$SiCl_3$	0.61[2a]	$SiMe_3$	2.5[6]
$GeMe_3$	2.1[7]	$GePh_3$	2.9[7]
$SnMe_3$	1.1[7]	$SnPh_3$	1.4[7]
$PbMe_3$	0.7[7]	-	-
HgBr	0.0	HgCl	-0.3
HgOAc	0.0[2a]	-	-
MgBr (Et_2O)	0.78[2c]	$Mg-C_6H_{11}$	0.53[2c]

* Solvent dependent.