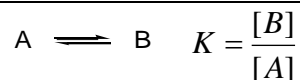


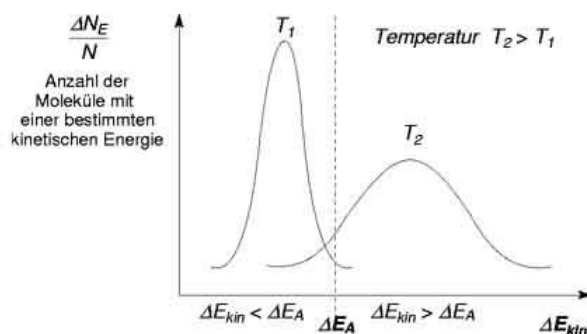
Energie und Gleichgewicht



$$\Delta G^0 = -RT \cdot \ln K$$

K	B [%]	A [%]	ΔG^0 [kJ/mol] bei 25 °C
0.0001	0.01	99.99	+22.84
0.001	0.1	99.9	+17.11
0.01	0.99	99.0	+11.42
0.1	9.1	90.0	+5.69
0.33	24	75	+2.72
1	50	50	0
3	75	25	-2.72
10	90.9	9.1	-5.69
100	99.0	0.99	-11.42
1000	99.9	0.1	-17.11
10000	99.99	0.1	-22.84

Boltzmann-Verteilung



Breitmaier/Jung, Organische Chemie, 4. Auflage 2001



Säurestärken wichtiger Verbindungen und Verbindungsklassen

<http://www.chem.wisc.edu/areas/reich/pkatable/index.htm>

http://daecr1.harvard.edu/pdf/evans_pKa_table.pdf

Säure	pK_a (ca.)	Säure	pK_a (ca.)	Säure	pK_a (ca.)
H-Cl	-7	MeCOCH ₂ COOEt	11	CH ₃ COOEt	25
R ₂ C=OH ⁺	ca. -7	H ₂ N-C(Me)=NH ₂ ⁺	12.4	CH ₃ CN	25
RC(OH) ₂ ⁺	-6	MeSO ₂ CH ₂ SO ₂ Me	12.5	HC≡C-H	25
R ₂ OH ⁺	ca. -4	CH ₂ (COOR) ₂	13	Cyclopropenyl-H	26
H ₃ O ⁺	-1.74	Guanidinium	13.7	Ph ₃ C-H	30
HNO ₃	-1.4	HCCl ₃	ca. 15	MeSOCH ₃	35
RCO ₂ H	4 - 5	H ₂ O	15.74	Ph-CH ₃	41
Ar-NH ₃ ⁺	4.6	Cyclopentadienyl-H	16	H ₂ C=CH-CH ₃	43
Pyridinium	5.2	MeOH	16	Ph-H	43
Ar-OH	8 - 11	EtOH	16	H ₂ C=CH-H	44
MeCOCH ₂ COMe	9	ClCH ₂ COMe	17	Cyclopropyl-H	46
NCCH ₂ COOEt	9	<i>t</i> BuOH	19	Alkyl-H	48 - 55
NH ₄ ⁺	9.24	CH ₃ COPh	19	CH ₄	ca. 58
CH ₃ NO ₂	10	CH ₃ COMe	20	<i>t</i> Bu-H	ca. 71
RNH ₃ ⁺	10 - 11	Ph-C≡C-H	ca. 21		