

isomer name	energy kj/mol	energy kcal/mol	e(-E/RT)	mole fraction	sum of mole fractions of subset of trans isomers	sum of mole fractions of subset of cis isomers
trans-1	24.6	=B6/4.18	=EXP(-(C6*1000)/(1.98*338))	=D6/D\$18	=E6+E7+E8+E13	=E9+E10+E11+E12+E14+E15+E16
trans-2	25.2	=B7/4.18	=EXP(-(C7*1000)/(1.98*338))	=D7/D\$18		
trans-3	26.4	=B8/4.18	=EXP(-(C8*1000)/(1.98*338))	=D8/D\$18		
cis-1	30.3	=B9/4.18	=EXP(-(C9*1000)/(1.98*338))	=D9/D\$18		
cis-2	30.5	=B10/4.18	=EXP(-(C10*1000)/(1.98*338))	=D10/D\$18		
cis-3	30.9	=B11/4.18	=EXP(-(C11*1000)/(1.98*338))	=D11/D\$18		
cis-4	32.3	=B12/4.18	=EXP(-(C12*1000)/(1.98*338))	=D12/D\$18		
trans-4	36.8	=B13/4.18	=EXP(-(C13*1000)/(1.98*338))	=D13/D\$18		
cis-5	37	=B14/4.18	=EXP(-(C14*1000)/(1.98*338))	=D14/D\$18		
cis-6	37.2	=B15/4.18	=EXP(-(C15*1000)/(1.98*338))	=D15/D\$18		
cis-7	39.3	=B16/4.18	=EXP(-(C16*1000)/(1.98*338))	=D16/D\$18		

sum = =SUM(D6:D16)

=SUM(E6:E16)

trans-1	24.6	=B22/4.18	=EXP(-(C22*1000)/(1.98*338))	=D22/D\$25
cis-1	30.3	=B23/4.18	=EXP(-(C23*1000)/(1.98*338))	=D23/D\$25

sum = =SUM(D22:D23)

=SUM(E22:E23)

Keq (trans/cis) CHCl3 = **=G6/H6**
 considering the eleven conformers with energies
 between 24.6-39.3 kj/mol

=E22 **=E23**

Keq (trans/cis) CHCl3 = **=G25/H25**
 considering only the lowest E for
 the trans vs. that of the cis isomer