

Boltzmann calculation for the equilibrium ratio of *rac-2* to *meso-2*:

The experiments were performed in duplicate and confirmed to be reversible with temperature:

20mM complex was dissolved in in 0.4 mL *d*-toluene, with the *rac-2* to *meso-2* ratio being determined by integration of the phospholyl ligand C-Methyl groups in the negative chemical shift range of the spectrum.

bisphosphacobaltocène TBS

20mg in 0,4mL Toluene-d8

quantification using integrals at -16,7 (meso) and -8,3 (rac)

T (°C)	T (K)	1/T	experience 1						experience 2					
			meso	rac	meso norm	rac norm	rac/meso	ln (rac/meso)	meso	rac	meso norm	rac norm	rac/meso	ln (rac/meso)
17	290	0,00344828	1	10,2	8,9285714	91,071429	10,2	2,32238772	1	9,4	9,6153846	90,38462	9,4	2,240709689
30	303	0,00330033	1	7,8	11,363636	88,636364	7,8	2,054123734	1	8,45	10,582011	89,41799	8,45	2,134166441
50	323	0,00309598	1	7,3	12,048193	87,951807	7,3	1,987874348	1	7,1	12,345679	87,65432	7,1	1,960094784
67	340	0,00294118	1	5,9	14,492754	85,507246	5,9	1,774952351	1	6,4	13,513514	86,48649	6,4	1,85629799
80	353	0,00283286	1	5,5	15,384615	84,615385	5,5	1,704748092	1	5,85	14,59854	85,40146	5,85	1,766441661
88	361	0,00277008	1	5,25	16	84	5,25	1,658228077	1	5,55	15,267176	84,73282	5,55	1,713797928



