

**TABLE 1 Enthalpy and entropy changes**

Cell	$\Delta H_f^\ddagger$ (kJ/mol)	$\Delta S_f^\ddagger$ (kJ/K · mol)	<i>r</i> fit	$\Delta H_f^\ddagger$ (kJ/mol)	$\Delta S_f^\ddagger$ (kJ/K · mol)	<i>r</i> fit	$\Delta H^\circ$ (kJ/mol)	$\Delta S^\circ$ (kJ/K · mol)	<i>r</i> fit
1	-131	-0.737	0.77	195	0.465	0.93	-326	-1.201	0.95
2	-150	-0.793	0.97	240	0.636	0.96	-389	-1.428	0.99
3	-350	-1.533	0.92	282	0.786	0.94	-632	-2.319	0.99
4	-121	-0.698	0.92	163	0.353	0.99	-284	-1.050	0.98
5	-226	-1.077	0.64	314	0.897	0.97	-540	-2.273	0.84
6	-152	-0.806	0.85	173	0.391	0.94	-325	-1.197	0.94
Mean	-188	-0.941		228	0.588		-416	-1.578	
SD	87	0.320		61	0.222		139	0.569	

For each cell, plots were constructed according to Eq. 8 from the forward and reverse rate constants at each temperature. Activation enthalpy and entropy were determined from line fits to those plots. These are the data in columns 1, 2 and 4, 5, with the correlation coefficient of the line fit in columns 3 and 6, respectively. For each cell the standard free energy, enthalpy, and entropy changes were calculated from the equilibrium constant at each temperature (see text). These are the data in columns 7 and 8, with the correlation coefficient of the line fit in column 9.