TABLE 1 Enthalpy and entropy changes

$\Delta H_{\rm f}^{\ddagger}$ (kJ/mol)	$\Delta S_{\rm f}^{\ddagger}$ (kJ/K · mol)	r fit	ΔH [‡] _r (kJ/mol)	ΔS_r^{\ddagger} (kJ/K · mol)	r fit	ΔH° (kJ/mol)	ΔS° (kJ/K·mol)	r fit
-131	-0.737	0.77	195	0.465	0.93	-326	-1.201	0.95
-150	-0.793	0.97	240	0.636	0.96	-389	-1.428	0.99
-350	-1.533	0.92	282	0.786	0.94	-632	-2.319	0.99
-121	-0.698	0.92	163	0.353	0.99	-284	-1.050	0.98
-226	-1.077	0.64	314	0.897	0.97	-540	-2.273	0.84
-152	-0.806	0.85	173	0.391	0.94	-325	-1.197	0.94
-188	-0.941		228	0.588		-416	-1.578	
87	0.320		61	0.222		139	0.569	
	ΔH [†] ₁ (kJ/mol) -131 -150 -350 -121 -226 -152 -188	ΔH [‡] _(kJ/mol) ΔS [‡] _(kJ/K · mol) -131 -0.737 -150 -0.793 -350 -1.533 -121 -0.698 -226 -1.077 -152 -0.806 -188 -0.941	$\begin{array}{c ccccc} \Delta H_{\rm f}^{\ddagger} & \Delta S_{\rm f}^{\ddagger} \\ (kJ/{\rm mol}) & (kJ/{\rm K}\cdot{\rm mol}) & r \ {\rm fit} \\ \\ -131 & -0.737 & 0.77 \\ -150 & -0.793 & 0.97 \\ -350 & -1.533 & 0.92 \\ -121 & -0.698 & 0.92 \\ -226 & -1.077 & 0.64 \\ -152 & -0.806 & 0.85 \\ -188 & -0.941 \\ \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

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.