Table 3. Basal values of thermodynamic parameters

LG		
par	*E*	*s*
v_s	9	-9
v_m	10	-10
K_i	19	19
K_m	13	12.3069
n	0	0
k_s	11	-11
V_1	11	-11
K_1	8	8.69315
V_2	13	-13
K_2	12	12.6931
V_3	7	-7
K_3	10	10.6931
V_4	10	-10
K_4	6	6.69315
k_{in}	10	-10
k_{out}	6	-6
v_d	10	-10
K_d	7	5.39056

TH		
par	*ε*	*s*
v_m	4	-4
k_m	3	-3
v_p	11	-11
k_{p1}	6	-6
k_{p2}	13	-13
k_{p3}	4	-4

J_p	5	2.00427
P_{crit}	19	16.6974
K_{eq}	7	12.2983
with these changes for RS		
P_{crit}	19	18.4892
K_{eq}	7	7
μ	10	-10
σ	-6.9315	-7.6246

$\Delta G = 298 \cdot R(\varepsilon - \theta s / 298)$. The two thermodynamic parameters, ε and s (energy and entropy), determine the temperature dependence of rate constants according to Arrhenius' law, $k_i = k_i^o e^{s_i^\dagger} e^{-\varepsilon_i^\dagger \cdot 298/\theta}$, and the temperature dependence of equilibrium constants according to the Gibbs equation, $K_i = e^{s_i^o} e^{-\varepsilon_i^o \cdot 298/\theta}$. The energy parameters were chosen to temperature-compensate each model according to Ruoff's rule (see text). For rate constants, $s_i^\dagger$ was (arbitrarily) set $= -\varepsilon_i^\dagger$, whereas for equilibrium constants $s_i^o = \varepsilon_i^o + \ln K_i(298)$. These energies and entropies of reaction depend on the biophysical properties of genetically encoded proteins and are therefore genetically modifiable. Test II models mutations by random perturbations of ε_i and s_i.