for harmonic oscillators with pressure (nonlinear)  $P_2(H)$  $P_1(H)$ **10**  $\exp(-(\beta_2 - \beta_1)H)$ **Fit to**  $y = \exp(b + aE)$ 8 4 2 8.0 0.5 1.0 **1.5** 2.0 2.5 3.0 3.5 4.0 H(kT)

H vs. probability ratio