

Supplemental Information

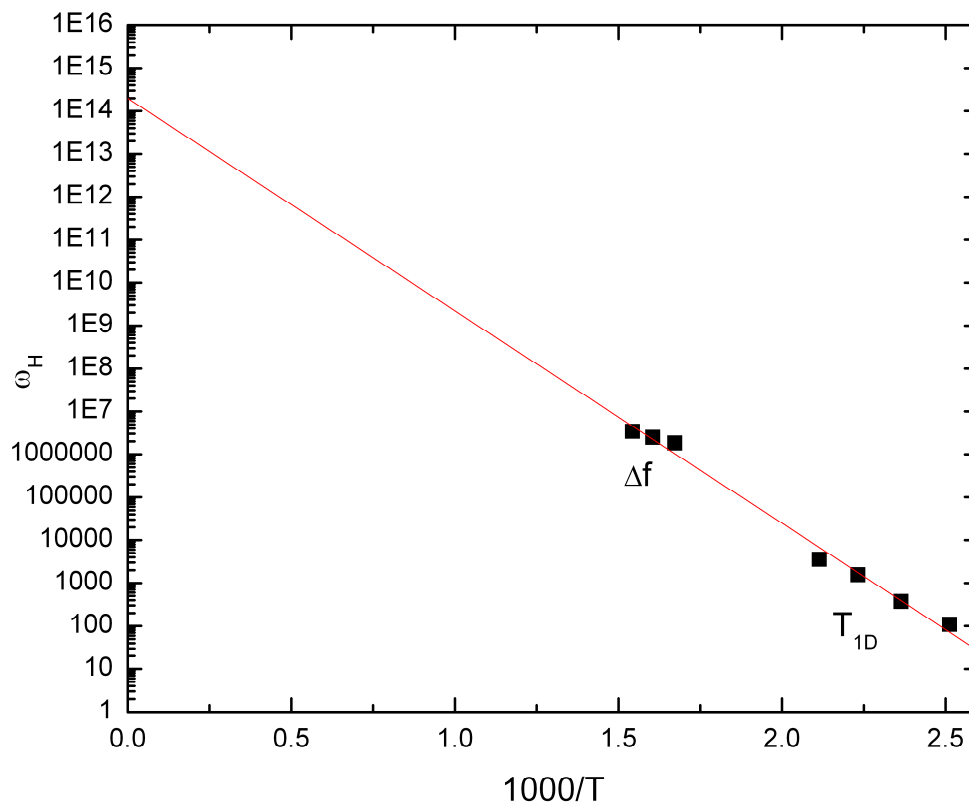


Figure S1: Thermal activation plot of rate ω_H of hydrogen motion. The data points are from $\omega_H = 1/T_{1D}$ and from linewidth Δf using eqn. (6), from the circled data points in Figure 6. The straight line correspond to activation parameters from eqn. (5), $\omega_0 = 2 \times 10^{14} \text{ s}^{-1}$ and activation energy $E=95 \text{ kJ/mol}$.