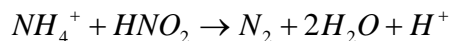
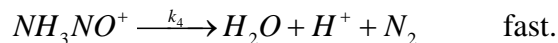
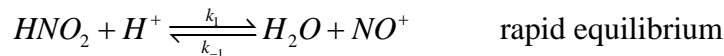


Chem 309 Mechanism Practice Problems

2) In acid solution, the rate of the reaction

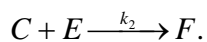
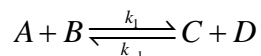


is consistent with the mechanism



Write the rate law that is consistent with this mechanism by expressing $\frac{d[NH_4^+]}{dt}$ as a function of $[NH_4^+]$, $[HNO_2]$, and $[H^+]$.

3) Consider the set of reactions



What relationships between the magnitudes of k_1 , k_{-1} , and k_2 and reagent concentrations will lead to the following rate laws?

a) $\frac{d[F]}{dt} = k \frac{[A][B][E]}{[D]}$

b) $\frac{d[F]}{dt} = k'[A][B].$