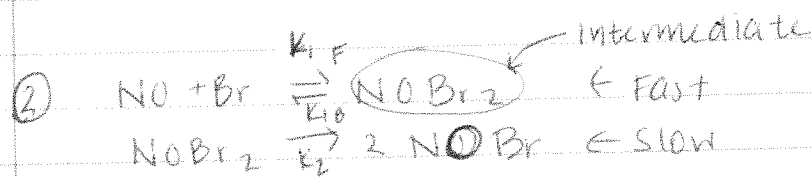
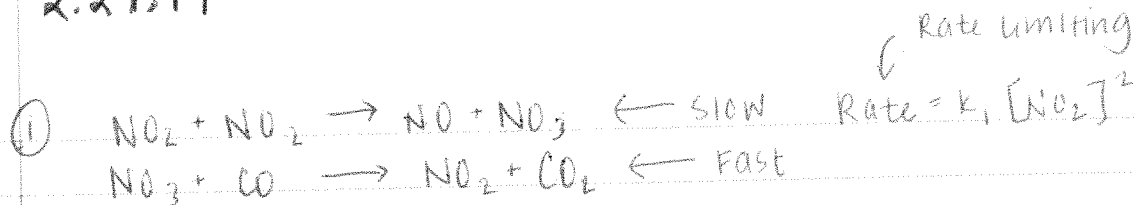


2.27.19



NOT ON TEST:
 Intermediate Not written:



on test ok to write intermediate!

$\text{Rate} = k_2 [\text{NOBr}_2] [\text{NO}]$

$\text{Rate} = k [\text{NO}]^2 [\text{Br}_2]$

Rate 1F = Rate 1B

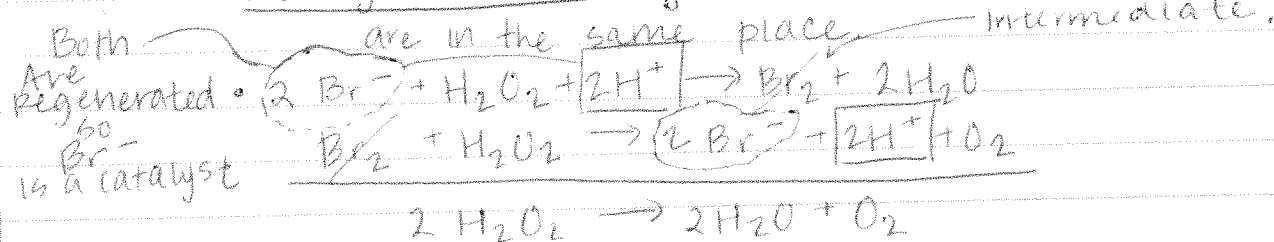
$k [\text{NO}] [\text{Br}_2] = k [\text{NOBr}]^2$

$[\text{NOBr}_2] = \frac{k_{1F}}{k_{1B}} [\text{NO}] [\text{Br}_2]$

$\text{Rate} = k_2 \left(\frac{k_{1F}}{k_{1B}} \right) [\text{NO}] [\text{Br}_2] [\text{NO}]$
 $= k' [\text{NO}]^2 [\text{Br}_2]$

Catalysts - increases the rate of RXN by decreasing Activation Energy.

• Homogeneous catalyst: reactants and catalysts



• Heterogeneous Catalyst: the catalyst is in a different phase than the reactants.

- The absorption of the reactants is often the rate-determining step.

• Enzyme: biological catalyst. The reactants (substrates) attach to an active site.