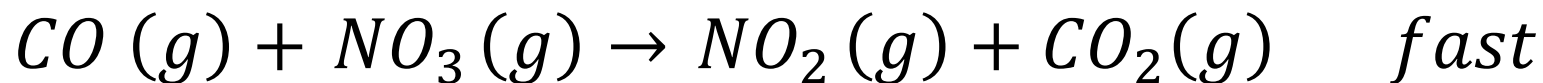


Reaction mechanism

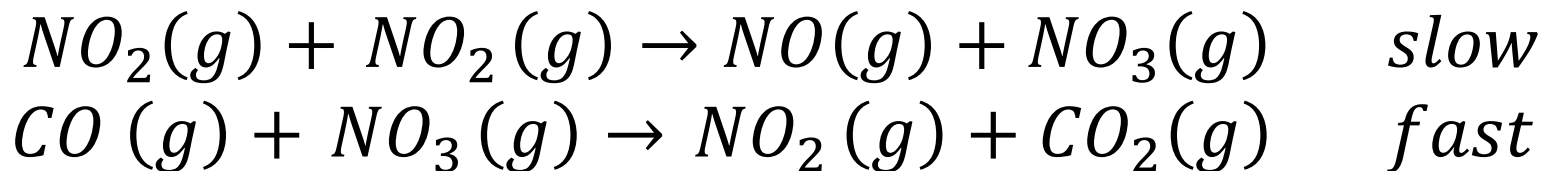
The following reaction mechanism was deduced based on experimental data:



- A. Write down an expression for the overall reaction.
- B. Write down the best hypothesis for the rate.

Reaction mechanism

For the mechanism:



A. The net reaction is:



B. The rate law is:

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

based on the fact that the slow step involves a bimolecular process with a collision of two NO_2 molecules.