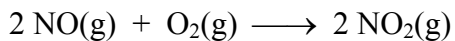


Consider the reaction:



The rate of the reaction can be expressed:

$$\text{Rate} = - (\Delta[\text{O}_2]/ \Delta t) = - A (\Delta[\text{NO}]/ \Delta t) = B (\Delta[\text{NO}_2]/ \Delta t)$$

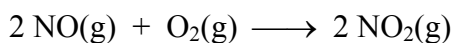
For nitric oxide

1. $A = 1/2$
2. $A = 1$
3. $A = 2$
4. $A = 1.5$

Correct Answer: 1.

Comments to the instructor: It is difficult for some students to realize the difference between an instantaneous rate and the rate law.

Consider the reaction:



The rate of the reaction can be expressed:

$$\text{Rate} = - (\Delta[\text{O}_2]/ \Delta t) = - A (\Delta[\text{NO}]/ \Delta t) = B (\Delta[\text{NO}_2]/ \Delta t)$$

For nitrogen dioxide

1. $B = 1/2$
2. $B = 1$
3. $B = 2$
4. $B = 1.5$

Correct Answer: 1.

Comments to the instructor: It is difficult for some students to realize the difference between an instantaneous rate and the rate law.