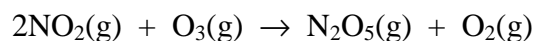


Marks
4

- The following initial rate data have been obtained for the gas phase reaction of nitrogen dioxide, $\text{NO}_2(\text{g})$, and ozone, $\text{O}_3(\text{g})$, at 300 K.



$[\text{NO}_2(\text{g})]$ M	$[\text{O}_3(\text{g})]$ M	Rate M s^{-1}
0.65	0.80	2.61×10^4
1.10	0.80	4.40×10^4
1.10	1.60	8.80×10^4

What is the order of this reaction with respect to each reagent?

What is the rate constant of the reaction?

Answer: