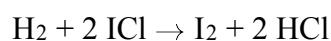


Experimental [H ₂] (mol/L)		Initial [ICl] (mol/L)	Initial Rate of Reaction (mol/s•L)
1	.30	.20	3.0×10^{-3}
2	.30	.60	9.0×10^{-3}
3	.10	.60	1.0×10^{-3}

1. The above chart contains experimental data obtained from the following reaction:



What is the experimental rate law for this reaction?

- A) Rate = $k[\text{H}_2]/[\text{ICl}]$
- B) Rate = $k[\text{H}_2][\text{ICl}]$
- C) Rate = $k[\text{H}_2][\text{ICl}]^2$
- D) Rate = $k[\text{H}_2]^2[\text{ICl}]^2$
- E) Rate = $k[\text{H}_2]^2[\text{ICl}]$

2. A student collected the initial-rate data in the chart below.

Experiment	Initial [XO] (mol/L)	Initial [O ₂] (mol/L)	Initial rate of formation of XO ₂ [mol/(L•s)]
1	0.20	0.20	0.40
2	0.80	0.20	6.4
3	0.20	0.40	0.80

What is the experimental rate law for this reaction?

- A) rate = $k [\text{XO}]^2[\text{O}_2]^{-1}$
- B) rate = $k [\text{XO}][\text{O}_2]^{-1}$
- C) rate = $k [\text{XO}]^2 [\text{O}_2]$
- D) rate = $k [\text{XO}] [\text{O}_2]^2$
- E) rate = $k [\text{XO}]^2 [\text{O}_2]^2$