Rate Equation

Introduction: The rate equation shows the relationship between the rate of a reaction and the concentration of the reactants.

The *rate law* expresses the relationship of the rate of a reaction to the rate constant and the concentrations of the reactants raised to some powers.

$$aA + bB \longrightarrow cC + dD$$

$$Rate = k\,[A]^x[B]^y$$

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reaction is *x order* with respect to A

reaction is *y order* with respect to B

- *x* and *y* are called the orders for each reactant

- **The rate constant, k, is a proportionality constant in the relationship between rate and concentrations.**

Videos:

https://www.youtube.com/watch?v=WDXzVI8SmfE&feature=emb_logo

https://www.youtube.com/watch?v=XgcbNLb2OMI&feature=emb_logo

Slides:

https://www.slideshare.net/sathiakumaran/81-rate-law?ref=https://notesmaster.com/en/group/caribbean/1556-cape-covid19-support/28359-rate-equation

Quiz review:

https://quizlet.com/19897596/rates-and-rate-laws-flash-cards/