Kinetics is the study of the rates of chemical reactions. As reactants are transformed into products in a chemical reaction, the amount of reactants will decrease and the amount of products will increase. In some cases, it is possible to use a simple visual clue to determine a reaction rate.

The indigo carmine indicator changes color as a result of the changing levels of oxygen in the solution. The solution is originally yellow in color, but when the flask is shaken, oxygen dissolves into the solution, therefore oxidizing the indicator, and changing the color to red. When the flask is shaken again, the levels of oxygen increase more, and will oxidize the indicator further, causing it to turn green.

The first three-colored signal and the traffic tower, in 1912, a traffic control device was placed on top a tower in Paris at the Rue Montmartre and Grande Boulevard. This tower signal was manned by a police woman and she operated a revolving four-sided metal box on top of a glass showcase where the word “Stop” was painted in red and the word “Go” painted in white. For more info scan the QR code.