

To determine the constants  $x$ ,  $y$ , and  $z$  we will use the method of initial rates. In this method, the reaction rate is measured for a short time for a given concentration of reactants (such that the initial concentration of the species present does not change significantly). The reaction is then run a second time, this time doubling the concentration of one species (for example,  $I^-$ ), while holding the others constant.