SECTION OVERVIEW

12.3: Kinetics Hint at the Reaction Mechanism

Since the different mechanisms have different rate-limiting steps, there are kinetic consequences for each type of mechanism. We can used kinetic data, therefore, to help distinguish the mechanism of a reaction. However, the information gleaned from rate laws alone can be ambiguous. For example, what does it mean if a reaction depends on on the concentration of incoming ligand? How can we distinguish between an associative mechanism (A), and an associatively-activated dissociative mechanism (D_a?