CHEM 261 October 16, 2020

**Substitution Reactions**

**SN1 reactions - Substitution Nucleophilic Unimolecular**

- Rate depends on 1 concentration (concentration of the starting material)

* Not concerted – has a carbocation intermediate
* Not stereospecific
* Works if leaving group is tertiary (not primary, slow on secondary)

**Example:** Tertiary Halide

-No SN2 possible, sterically crowded – does work by SN1



**Mechanism:**



The bromine group leaves with its electrons from the covalent bond, leaving behind a reactive carbocation intermediate

**Carbocation Stability:**

****

**Mechanism of Nucleophilic Attack on Carbocation**

****

The result of an SN1 mechanism is often a racemic mixture or mix of diastereomers