*CHEM 242 – Lecture 6 17/01/2014*

Overheads: - Outline

QUIZ # 1

Recap Wednesday: SN2 Reactions

Leaving Groups:

Weaker base = better LG

I- > Br- > Cl- >> F-

Nucleophiles:

stronger base = better Nu-

size matters





Examples of Nucleophiles:



Neutral Nucleophiles:

SN1 Reaction 🢡 Lab #2

Compare to SN2

1) Kinetics: only R-Br in RDStep, unimolecular ( SN1)

rate = [R-Br]/t = k[R-Br]

(if [Nu-] 🡩, rate does not 🡩)

2) Stereochemistry: (SN2 = inversion)



3) Effect of Substitution:

⇨ most stable C+ formed fastest (TS 🡫 , Ea 🡫 ) (Same as Markovnikov!)



Leaving Groups:

⇨ Need good LG to make C+ (same trends as SN2)

Nucleophiles:

⇨ Not in RDS do not affect rate

⇨ Can use lower concentration of weaker Nu-



Added complication for SN1

⇨ C+ can rearrange



“Special” Alkyl Halides

1) Allylic & Benzylic Halides

