

* Rxns of Alcohols Warm-Up Answers

① Alkoxides: bases

② S_N1 : alkyl halides

③ S_N2 : difficult rxn to occur (very slow, poor yield) + possible competing rxns (multiple products)

④ Converts a poor leaving group (OH) to a fantastic leaving group (tosylate)

⑤ Conversion of an ROH to a tosylate is a rxn that occurs at O+S. The C is never touched in this rxn.

⑥ False: S_N2 rxn that occurs at chiral C. Stereochemistry would be inverted.

⑦ E1

⑧ $3^\circ \text{ROH} > 2^\circ \text{ROH} > 1^\circ \text{ROH} > \text{Methyl ROH}$: intermediate is C^+ : most stable C^+ is best

⑨ False: H_3O^+ , H^+ , H_2SO_4 , H_3PO_4 only:
 HCl , HBr , HI cannot be used b/c Cl^- , Br^- , I^-
will attack the C^+ intermediate

⑩ Aldehydes or Carboxylic acids

⑪ Ketones

⑫ Never, ever, ever, oxidize a 3° ROH!!!

⑬ Alcohol is oxidized: Cr is reduced,
 $+6 \rightarrow +3$ or orange \rightarrow green.

⑭ See Organic I Review on website

⑮ mercaptans