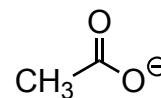


Library of Organic Chemistry Active Learning (LOCAL) Resources

Competing Substitution and Elimination Mechanisms

Categorize the following species as a strong or weak nucleophile, AND as a strong or weak base.

NaOH NH₃ CH₃OH NaCN iPrOH NaOEt NaNH₂ PhNH₂
 I[⊖] tBuOK NaSH Ph₃P H₂O CH₃O[⊖] PhS[⊖] CH₃CH₂OH



strong Nu:	strong base
weak Nu:	weak base

Summarize what you know about each of the following mechanisms. (circle all that apply)

	S_N2	S_N1	E2	E1
bi/unimolecular?	bi / uni	bi / uni	bi / uni	bi / uni
one-step mech.?	yes / no	yes / no	yes / no	yes / no
need good LG?	yes / no	yes / no	yes / no	yes / no
need strong Nu:?	yes / no	yes / no	yes / no	yes / no
need strong base?	yes / no	yes / no	yes / no	yes / no
sterics important?	yes / no	yes / no	yes / no	yes / no
preferred LG type?	1° 2° 3° allylic	1° 2° 3° allylic	1° 2° 3° allylic	1° 2° 3° allylic
stereochemistry?				
other notes				