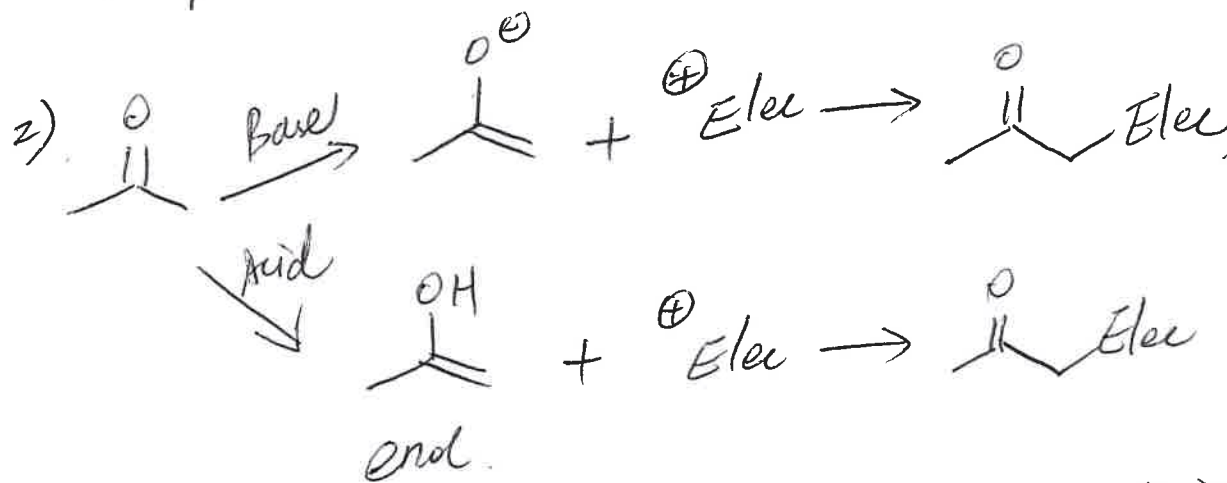
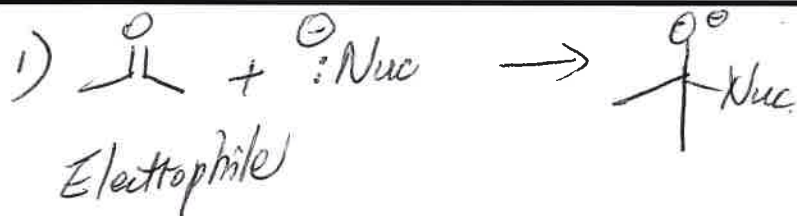


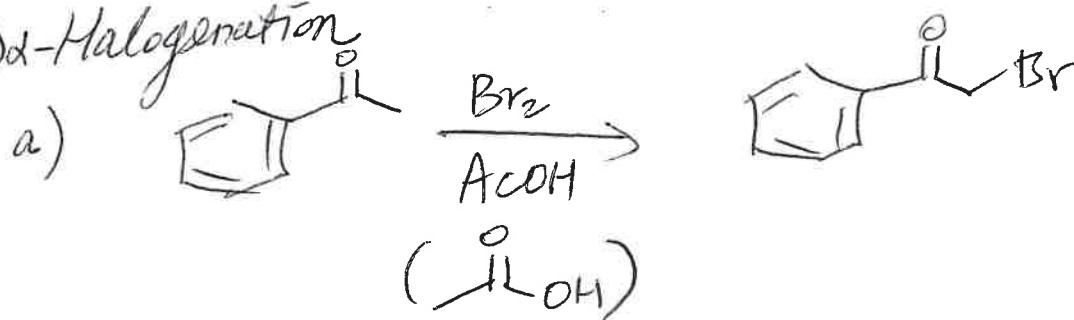
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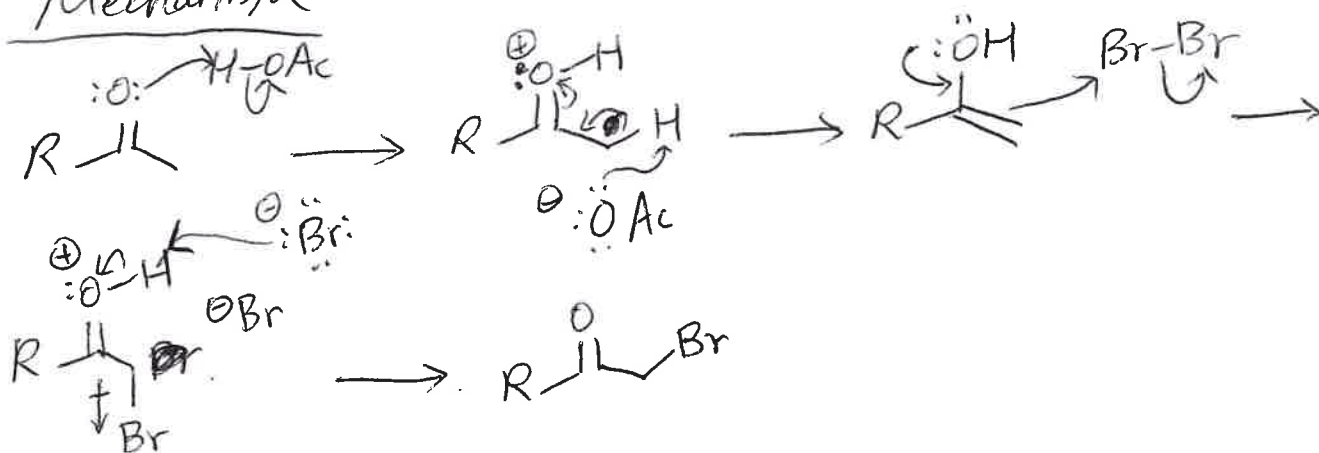
Reaction	Reagents	Base Product	Acid Product
Racemization	NaOH, H ₂ O	$\text{R}-\text{C}(=\text{O})-\text{CH}(\text{R}')-\text{R}^2$ <u>H</u>	$\text{R}-\text{C}(=\text{O})-\text{CH}(\text{R}')-\text{R}^2$ <u>H</u>
MDX (Hydrogen deuterium exchange)	NaOD, D ₂ O	$\text{R}-\text{C}(=\text{O})-\text{C}(\text{D})_2-\text{R}$	$\text{R}-\text{C}(=\text{O})-\text{C}(\text{D})_2-\text{R}$
Halogenation	X ₂ , NaOH	$\text{R}-\text{C}(=\text{O})-\text{OH} + \text{HCCl}_3$ Mald-form	$\text{R}-\text{C}(=\text{O})-\text{CH}_2-\text{X}$

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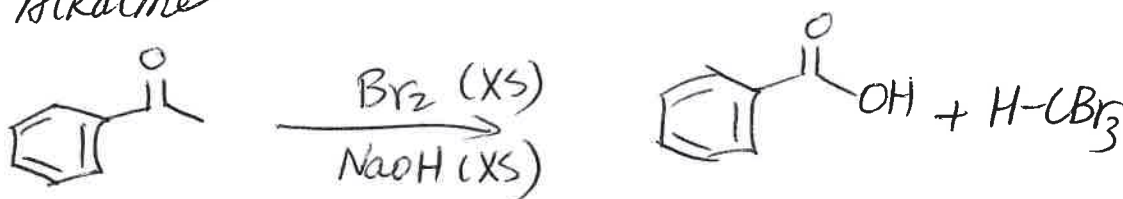
3) α -Halogenation



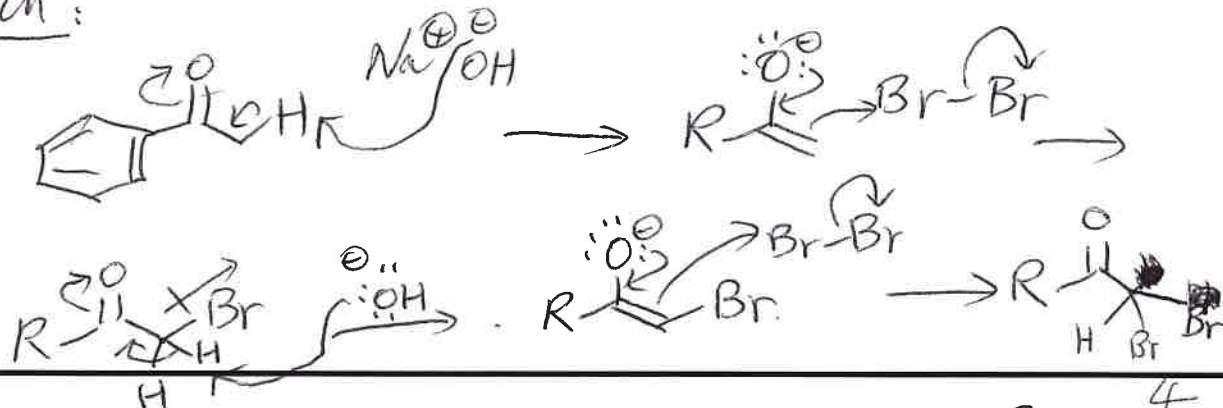
Mechanism



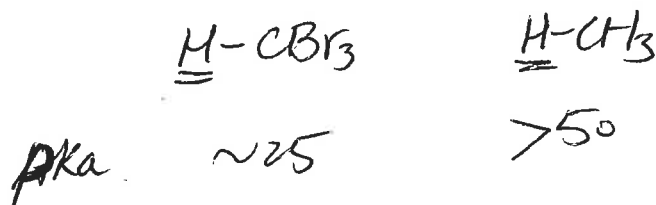
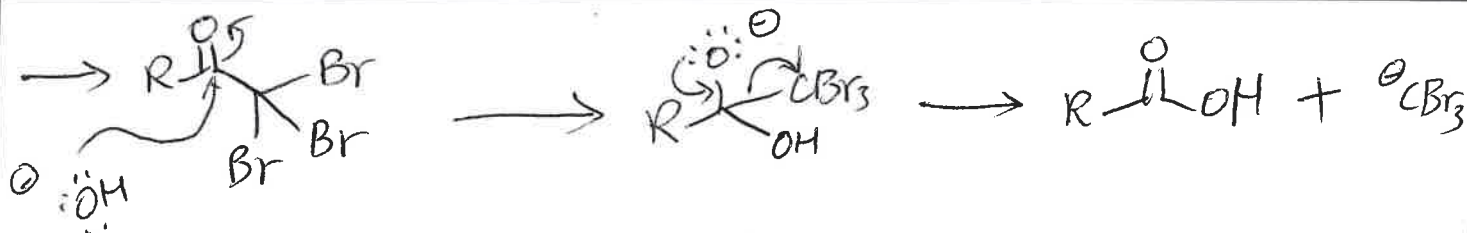
b) Alkaline



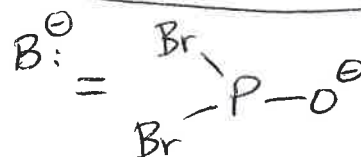
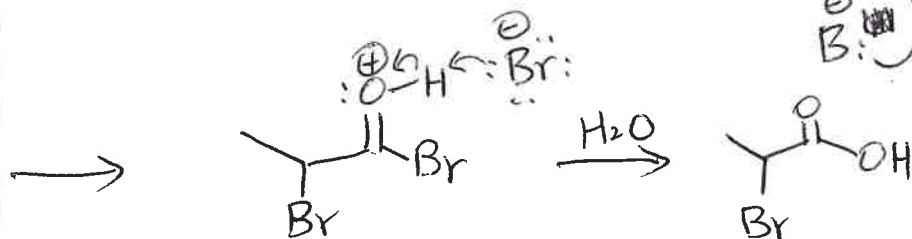
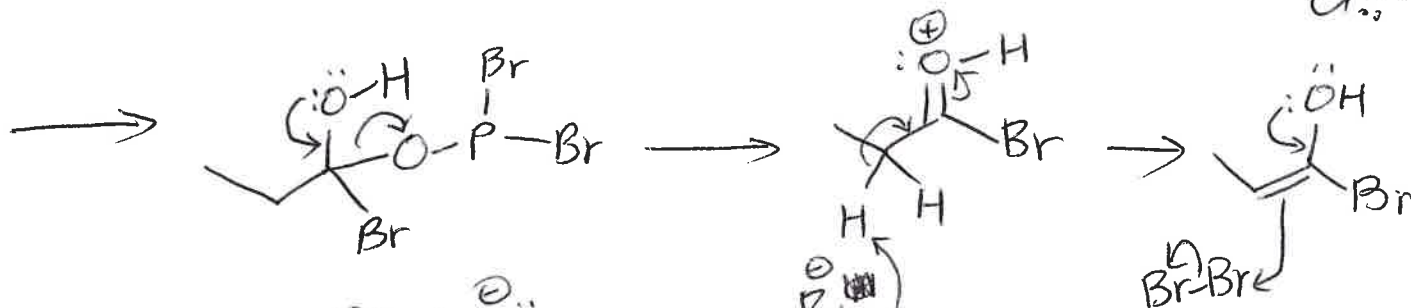
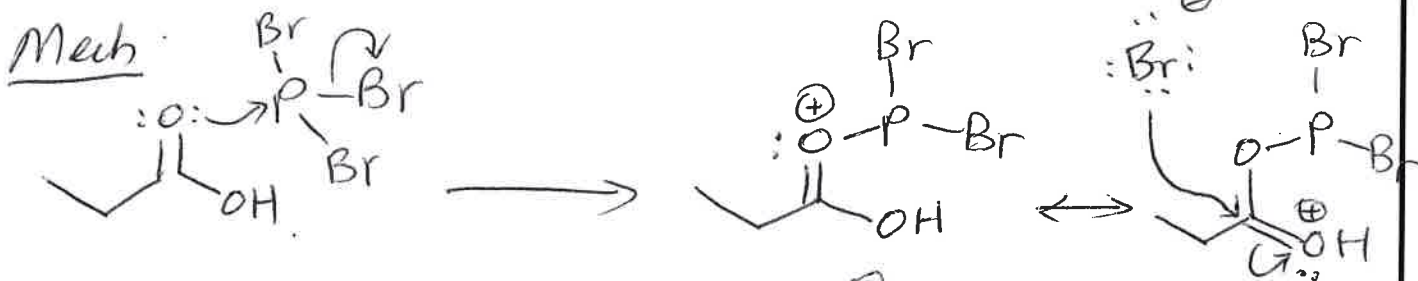
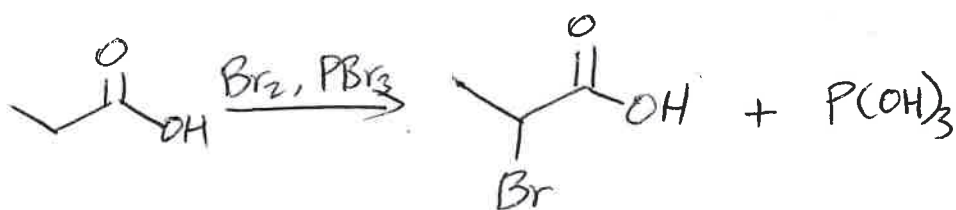
Mech:



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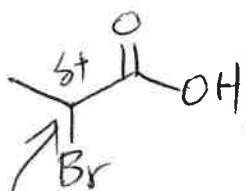
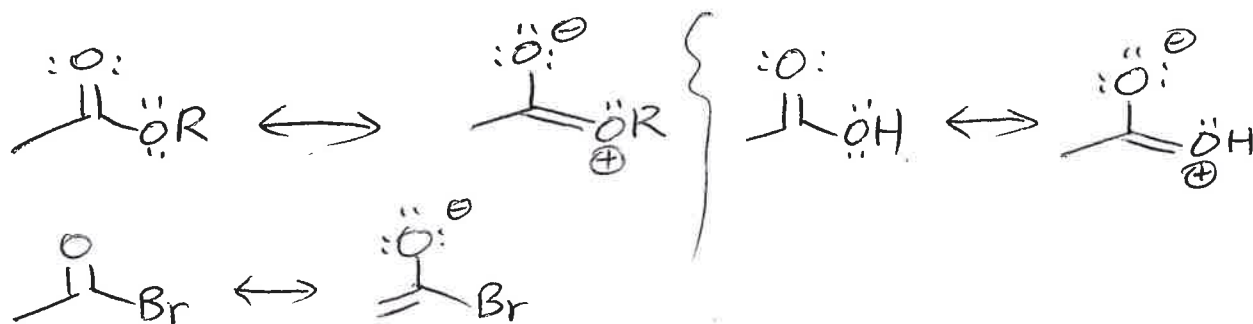
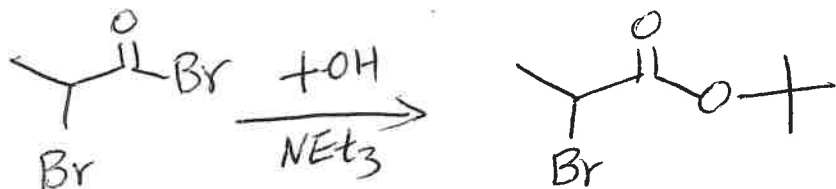


4) α -Bromination of Carbox. Acids

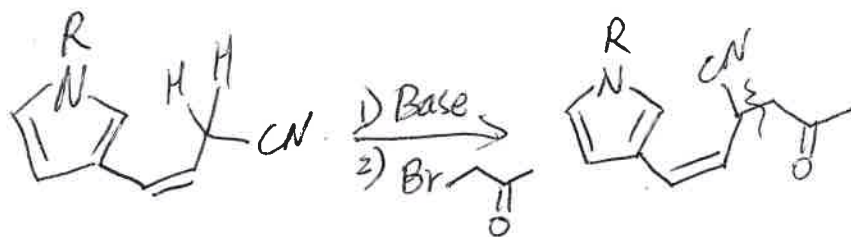


Course Chem 345 Lecturer Gellman
 Day Wednesday Date 4-6-16
 Notes Taken By LL Total # of Pages 4

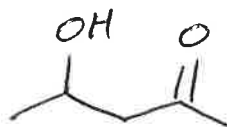
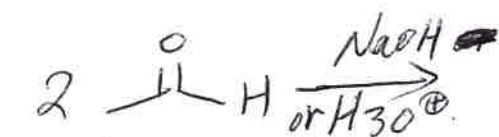
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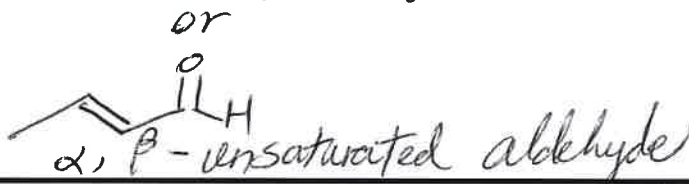
Electrophilic
@ α position



Aldol Reaction



β -hydroxy aldehyde



or α, β -unsaturated aldehyde