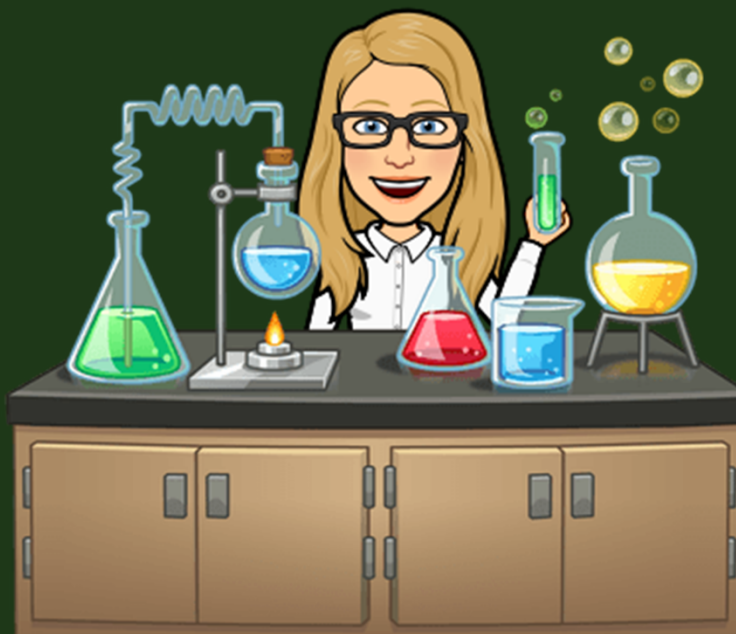


For clicker question voting, go to:
<https://pollev.com/lauriestarke263>



Dr. Laurie S. Starkey
Cal Poly Pomona

CHM 3150 Organic Chemistry II
10/2/25

Today's Topic: Acetals as Protective Groups...

Ch. 19 Part 4

- ✓ Watch
- ✓ Read
- ✓ Practice

Step 4

- Read Klein
 - Sections 12.7 & 19.5 Protective Groups
 - Section 19.12 Synthesis Strategies
- Work on problems 12.18, 19.10, 19.11 (protective groups)
- Work through SkillBuilder 19.7 and problems 19.40a-e,g (synthesis)

Part 4 - Acetals as Protective Groups

20 minutes

skeleton notes page 19-12 to 19-14

Flipped Lecture: Protective Groups

Acetals as Protective Groups	106:50
Acetals as Protective Groups	106:51
Example	110:39
Example: Consider the Following Synthesis	110:40
Protective Groups	114:47
Protective Groups	114:48
Example	119:02
Example: Transform	119:03
Example: Another Route	124:54
Example: Transform	128:49
Example	128:50
Transform	128:51
Example	131:05
Transform	131:06
Example	133:45
Transform	133:46
Example	135:43
Provide the Missing Starting Material	135:44

Acetals as Protective Groups

Ch. 19 Reactions of Aldehydes & Ketones

Check out the
End-of-Chapter
Material

19.12 Synthesis Strategies

19.13 Spectroscopic Analysis

**Review of
Reactions**

REVIEW OF CONCEPTS AND VOCABULARY

SKILLBUILDER REVIEW

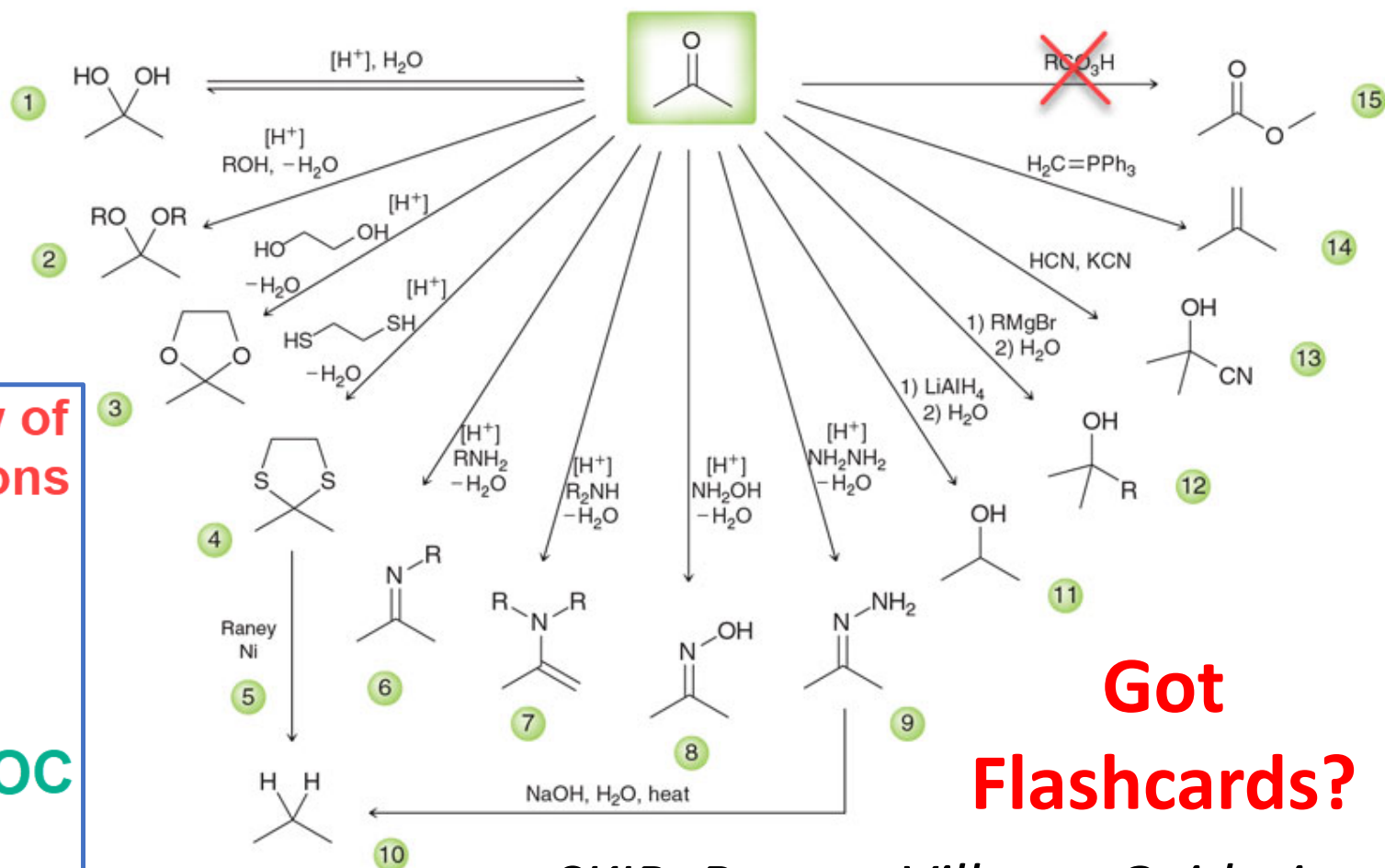
PRACTICE PROBLEMS

ACS-STYLE PROBLEMS (Multiple Choice)

INTEGRATED PROBLEMS

CHALLENGE PROBLEMS

EOC



**Got
Flashcards?**

SKIP: Baeyer-Villiger Oxidation

... & Today's Other Topic: Intro to Carboxylic Acids and Their Derivatives (Ch. 20)

Ch. 20 Part 1

- ✓ Watch
- ✓ Read
- ✓ Practice

Step 1

- Nomenclature is a BIG topic, so you can chip away at it and we will work on problems at the end (see Step 4)
 - Practice Carboxylic Acid & CA Derivatives Nomenclature: [practice worksheet](#) and [answer key](#)
- Read Klein 20.3 **Physical Properties**
- Work through **Conceptual Checkpoints 20.4-7, 20.9ab**

- [Part 1 - Physical Properties](#)

32 minutes

skeleton notes pp 20-1 through 20-3

Flipped lecture: Intro to Carboxylic Acids & Carb. Acid Derivatives

Carboxylic Acids ▾		≡+ ▾ 1:17:5
Intro		0:00
Review Reactions of Ketone/Aldehyde		0:06
Carbonyl Reactivity		0:07
Nu: = Hydride (Reduction)		1:37
Nu: = Grignard		2:08
Review Reactions of Ketone/Aldehyde		2:53
Nu: = Alcohol		2:54
Nu: = Amine		3:46
Carboxylic Acids and Their Derivatives	Intro to Reactivity	4:37
Carboxylic Acids and Their Derivatives	Acidity of RCOOH	4:38
Ketone vs. Ester Reactivity		6:33
Ketone Reactivity		6:34
Ester Reactivity		6:55
Carboxylic Acids and Their Derivatives		7:30
Acid Halide, Anhydride, Ester, Amide, and Nitrile		7:43
General Reactions of Acarboxylic Acid Derivatives		9:22
General Reactions of Acarboxylic Acid Derivatives		9:23
Physical Properties of Carboxylic Acids		12:16
Acetic Acid		12:17
Carboxylic Acids		15:46
Acidity of Carboxylic Acids, RCO ₂ H		17:45
Alcohol		17:46
Carboxylic Acid		19:21
Acidity of Carboxylic Acids, RCO ₂ H		21:31
Acidity of Carboxylic Acids, RCO ₂ H		21:32
Acidity of Carboxylic Acids, RCO ₂ H		24:48
Example: Which is the Stronger Acid?		24:49
Acidity of Carboxylic Acids, RCO ₂ H		30:06
Inductive Effects Decrease with Distance		30:07

Start...Stop...Continue

Flipped classroom ✓

Lecture videos/skeleton notes ✓

SkillBuilders ✓

Recording class/Zoom option ✓

Free red ink feedback ✓

Answer key to
sample exams ✗

Require fewer textbook
problems ✗

Too many websites...

*...thanks for all the resources
(can you provide Ch. Summary?)*

Problems are too fast in class...
...do more problems

OLC is great...

...group work isn't for me

Do you know what
this weekend is?!

CHM 3150 Organic Chemistry II, Dr. Laurie S. Starkey, Fall 2025

Tentative Schedule (Chapter and Worksheet #)

Week	Mon	Tues	Wed	Thurs	Fri
	9/22	9/23	9/24	9/25	9/26
5		Ch. 19 #1		Ch. 19 #2	
6	9/29	9/30	10/1	10/2	10/3
		Ch. 19 #3		Ch. 19/20 #1	
7	10/6	10/7	10/8	10/9	10/10
		Ch. 20 #2		Ch. 20 #3	
8	10/13	10/14	10/5	10/16	10/17
		Ch.20 #4, Review		Exam II	

Ch. 20 Nomenclature is a BIG topic, so work through gradually on your own! (see Step 4)

Infographic by James Kennedy,
Chemistry teacher in Australia

Common Names of Carboxylic Acids

 formic acid 'ant' in Latin methanoic acid	 acetic acid 'vinegar' in Latin ethanoic acid	 propionic acid 'first fat' in Greek propanoic acid	 butyric acid 'butter' in Greek butanoic acid	 valeric acid 'valerian' in English pentanoic acid	 caproic acid 'goat' in Latin hexanoic acid	 enanthic acid 'blossom' in Greek heptanoic acid	 caprylic acid 'goat' in Latin octanoic acid	 pelargonic acid 'geranium' in Greek nonanoic acid
 capric acid 'goat' in Latin decanoic acid	11 undecylic acid '11' from Greek undecanoic acid	 lauric acid 'laurel' in Latin dodecanoic acid	13 tridecylic acid '13' from Greek tridecanoic acid	 myristic acid 'nutmeg' in Latin tetradecanoic acid	15 pentadecylic acid '15' from Greek pentadecanoic acid	 palmitic acid 'palm trees' in English hexadecanoic acid	 margaric acid 'pearl oyster' in Greek heptadecanoic acid	 stearic acid 'tallow' in Greek octadecanoic acid
19 nonadecylic acid '19' from Greek nonadecanoic acid	 arachidic acid 'peanuts' in Latin eicosanoic acid	21 heneicosanoic acid '21' from Greek heneicosanoic acid	 behenic acid '11th' month in Persian docosanoic acid	23 tricosylic acid '23' from Greek tricosanoic acid	 lignoceric acid 'wood wax' in Latin tetracosanoic acid	25 pentacosylic acid '25' from Greek pentacosanoic acid	 cerotic acid 'wax' in Greek & Latin hexacosanoic acid	27 heptacosylic acid '27' from Greek heptacosanoic acid
 montanic acid 'mountain' in Latin octacosanoic acid	29 nonacosylic acid '29' from Greek nonacosanoic acid	 melissic acid 'bee' in Greek triacontanoic acid	31 hentriacontylic acid '31' from Greek hentriacontanoic acid	? lacceroic acid (origin unknown) dotriacontanoic acid	 psyllic acid 'fleawort' in Greek tritriacontanoic acid	? gheddic acid (origin unknown) tetatriacontanoic acid	 ceroplastic acid 'modelling wax' in Greek pentatriacontanoic acid	36 hexatriacontylic acid '36' from Greek hexatriacontanoic acid

JAMESKENNEDYMONASH.WORDPRESS.COM