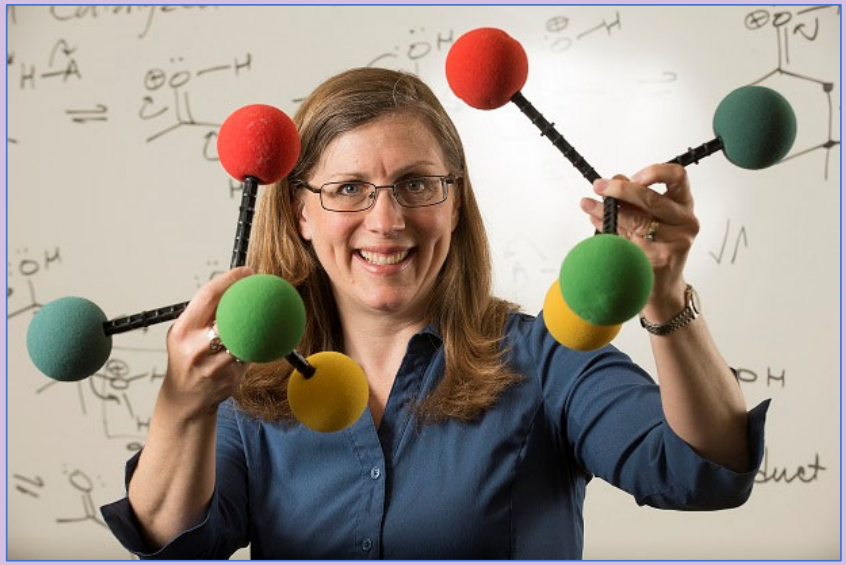
For voting, go to: https://pollev.com/lauriestarke263
or text LAURIESTARKE263 to 37607 to join poll



Dr. Laurie S. Starkey

Cal Poly Pomona

CHM 3140 Organic Chemistry I Announcements 3/4/25

Today's Topic: Stereochemistry (Chapter 5, Step 3)

Daily To-Do	Flipped Lectures
Step 3 • Read Klein Chapter 5, sections 5.4, 5.10 and 5.11 • Watch flipped lecture (Part 3) • Work through **SkillBuilders 5.5 and 5.9** • **Take Canvas quizzes** for extra practice and course credit. Two quizzes are available: R/S Quiz, Compare Quiz (each is worth 3 homework points) • Work on suggested **Chapter 5 EOC problems** on WileyPLUS (auto-graded) and/or on paper (self grade, using Solutions Manual).	Part 3 - optical activity, mixtures of enantiomers, alkene nomenclature **23 minutes**, *skeleton notes pages 5-6 to 5-8*

Chapter 5

✓ Watch

✓ Read

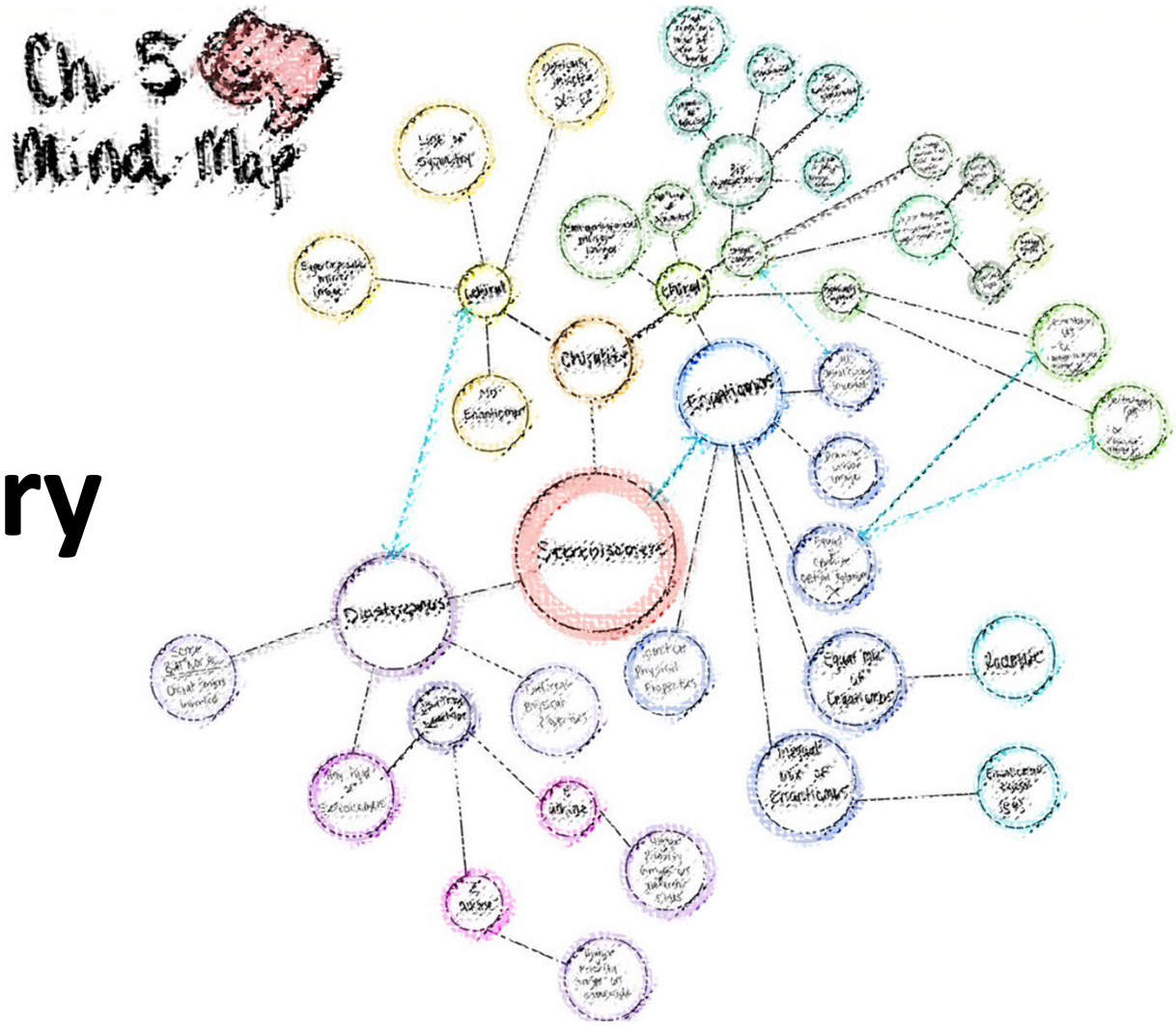
✓ Practice

Educator Lecture

Physical Properties of Stereoisomers		77:11
Enantiomers		77:12
Diastereomers		78:01
Example		78:26
Physical Properties of Stereoisomers	**Physical Properties & Enantiomeric Excess (ee)**	83:05
When Do Enantiomers Behave Differently?		83:06
Racemic Mixtures		88:18
Racemic Mixtures		88:21
Resolution		89:52
Unequal Mixtures of Enantiomers		92:54
Enantiomeric Excess (ee)		92:55
Unequal Mixture of Enantiomers		94:43
Unequal Mixture of Enantiomers		94:44
Example: Finding ee		96:38
Example: Percent of Composition		99:46

Current Friday5…

Make a **Stereochemistry Concept Map**!



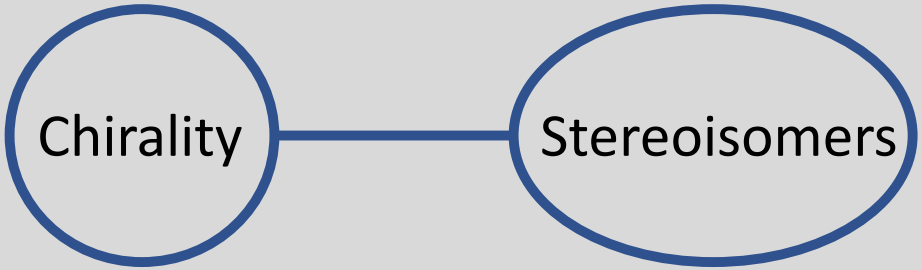
Concept Map to…

visualize content

organize topics

identify relationships

Begin with:



Prizes will be awarded for best Concept Maps!

Exam Wrapper Survey & Exam Corrections (4 pts each)

due Thurs. 3/6

Last Call for Regrade Requests!

CHM 3140 Exam Wrapper - Post-Test Survey Name:_____

Metacognition By taking a step back and thinking about the way you learn, you can improve your learning! The following survey will guide you through an exercise in self-reflection, with the goal of improving your performance on the next exam. You will earn 4 points credit if you complete this survey, and 4 points for corrections (*include written reflection, if score <50). It analyzes the following three areas

1. How did you prepare for this exam?
2. What kinds of mistakes did you make?
3. How will you prepare differently next time?

** If exam score is below 50, you must submit a written reflection with your exam corrections (what will you do differently for the rest of the semester?)*

What was your score* on the exam? ☐

What was your grade in CHM 1220? ☐ Are you repeating CHM 3140? Y / N

1. Leading up to the exam, approximately how many hours per week outside of class (on average) did you spend studying Organic Chemistry? ☐

2. Given the number of textbook problems in each chapter (#), about how many did you work on?

Ch. 1 (# problems) **(Lewis, hybridization, bp)**		**Ch. 2** (# problems) **(Resonance)**		**Ch. 3** (# problems) **(Acid/Base)**	
10 SkillBuilders (**34**)		10 SkillBuilders (**33**)		11 SkillBuilders (**33**)	
End-of-Chapter (EOC) (**47**)		EOC (**51**)		EOC (**40**)	

What's Coming Up Next? NMR!

CHM 3140 Organic Chemistry I, Dr. Laurie S. Starkey, Spring 2025

Tentative Schedule (Chapter and *Worksheet/Step #* given for each day)

Week	Mon	Tues	Wed	Thurs	Fri
5	you are here	2/18 Ch. 4 *#1*	2/19	2/20 Ch. 4 *#2*	2/21
6		2/25 Ch. 5 *#1*	2/26	2/27 Ch. 5 *#2*	2/28
7	3/3	3/4 Ch. 5 *#3*	3/5	3/6 Ch.15 *#1*	3/7
8	3/10	3/11 Exam Review	3/12	3/13 **Exam II**	3/14

Daily To-Do

Part 1 (will be on Exam II)

- **Optional Reading:** skim through Klein Chapter 15, sections 1-9, 11, and 12
- Watch ALL FOUR flipped lectures
- Work through **SkillBuilders 15.1 - 15.7 and 15.9.**
- See suggested **Chapter 15 EOC problems** on WileyPLUS (auto-graded) and/or on paper (self grade, using Solutions Manual). The following Chapter 15 problems are good practice for Exam II:
  1-22, 26, 35-39, 41, 42, 45, 47, 48, 50, 63-71.

Flipped Lectures

- Part 1a - Introduction to NMR Spectroscopy
  30 minutes, *skeleton notes pages 15-1 to 15-2*
- Part 1b - Number of Signals & Peak Integration
  22 minutes, *skeleton notes page 15-3*
- Part 1c - Chemical Shifts (ppm)
  25 minutes, *skeleton notes pages 15-4 to 15-5*
- Part 1d - Splitting Patterns & Predicting an NMR Spectrum
  41 minutes, *skeleton notes pages 15-6 to 15-7*