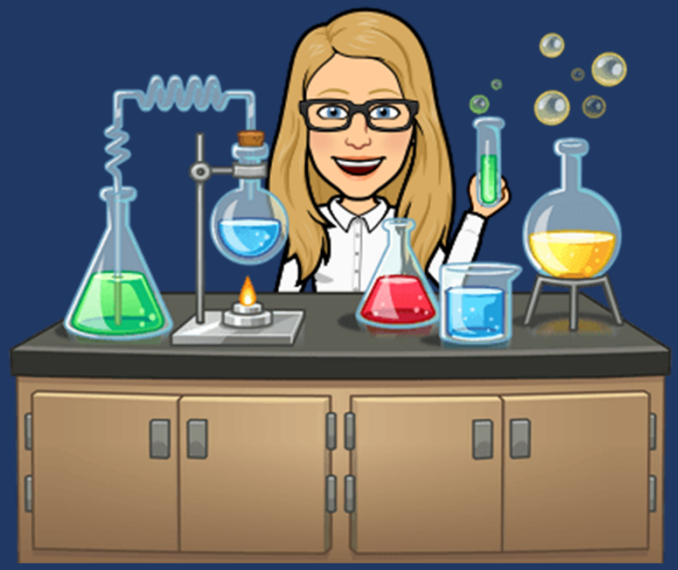
For clicker question voting, go to:
https://pollev.com/lauriestarke263



Dr. Laurie S. Starkey

Cal Poly Pomona

CHM 3150 Organic Chemistry II
Announcements 11/20/25

Today's Topic: Chapter 16 Conjugated Dienes

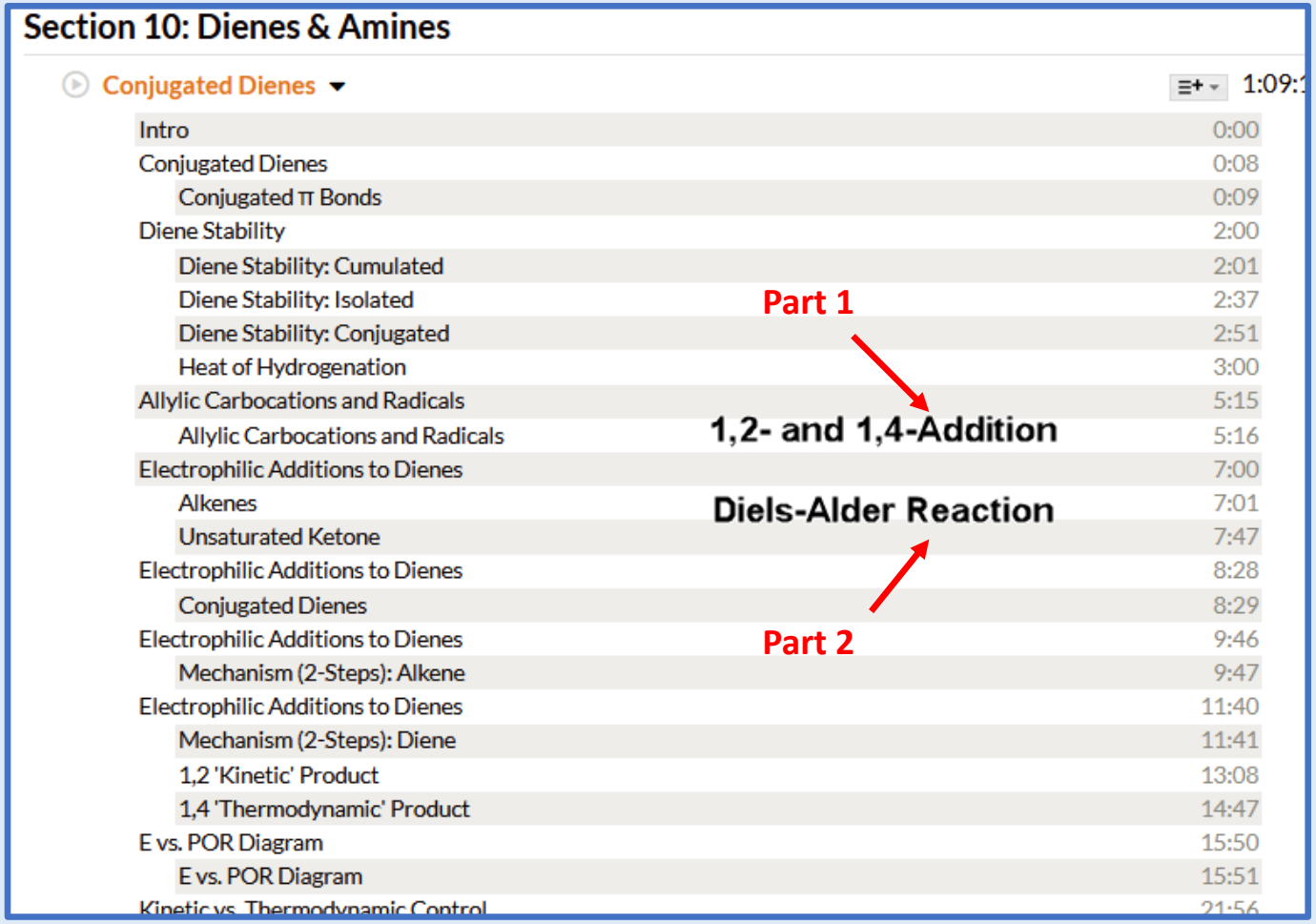
Ch. 16 (Step 1)
- ✓ **Watch**
- ✓ **Read**
- ✓ **Practice**

Step 1

- Read Klein **16.1, 16.2, 16.3** for an overview of conjugated dienes *(Molecular Orbital Theory will NOT be emphasized)*
- Read Klein **16.4, 16.5 Electrophilic Additions** and **Thermodynamic/Kinetic Control**
- Watch flipped lecture
- Work through **SkillBuilders 16.1, 16.2** and **Conceptual Checkpoints** (problems 16.1 - 16.4 and 16.6 - 16.11)

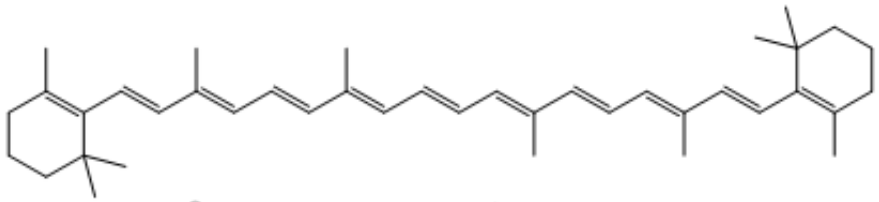
Conjugated Dienes - Part 1
26 minutes
skeleton notes pages 16-1 to 16-3

Flipped Lecture: Conjugated Dienes



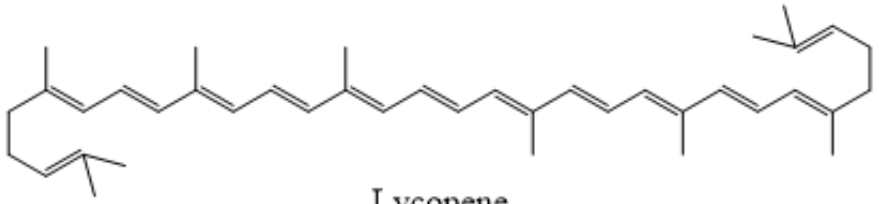
Reminder: Chapter 16 will not be on Exam III

Color Chemistry: Electronic Transitions

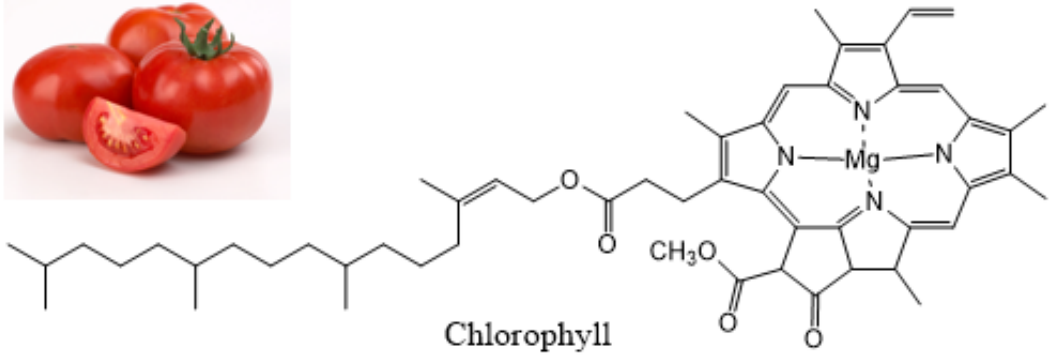


β-Carotene (orange plants - carrots)

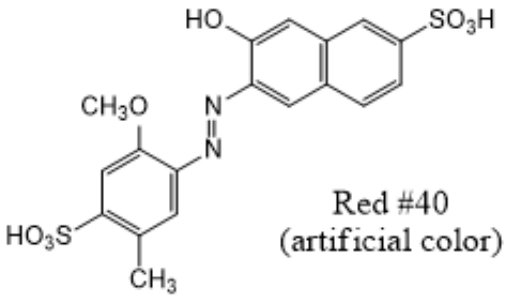
$\pi \longrightarrow \pi^*$ 454 nm (blue light absorbed)



Lycopene
(red plants - tomatoes)



Chlorophyll
(green plants)

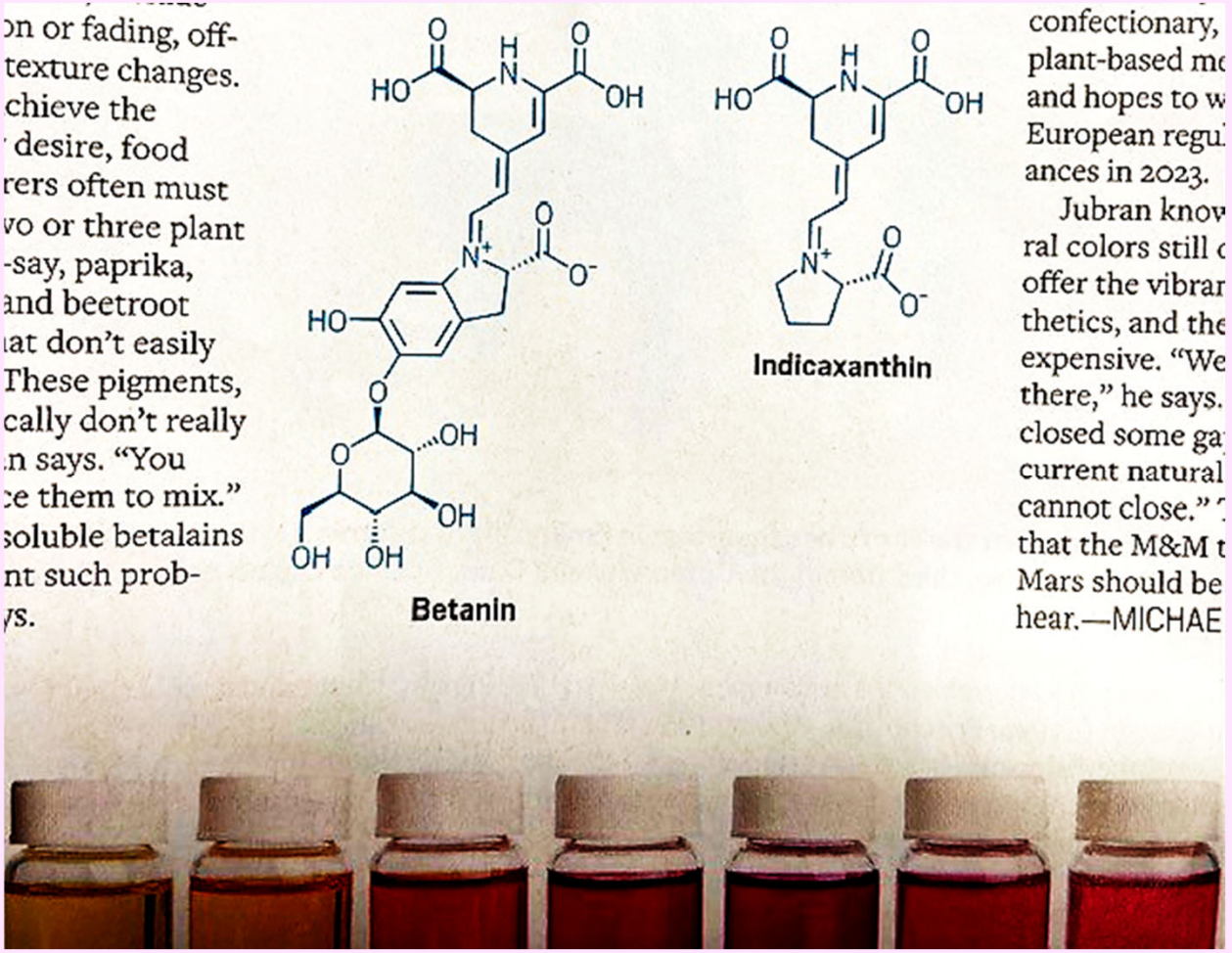


Red #40
(artificial color)

Cool Research Alert!

Israeli Start-Up Phytolon has Produced a Biochemical Color Factory!

The genes that express these naturally occurring colored compounds were identified and then introduced to the DNA of baker's yeast. The modified yeast produces pigments that might be used someday as alternatives to synthetic dyes.



…on or fading, off-
texture changes.
chieve the
desire, food
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vo or three plant
-say, paprika,
and beetroot
at don't easily
These pigments,
cally don't really
n says. "You
e them to mix."
soluble betalains
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ys.

Betanin

Indicaxanthin

confectionary,
plant-based m
and hopes to w
European regu
ances in 2023.
Jubran knov
ral colors still
offer the vibra
thetics, and the
expensive. "We
there," he says.
closed some ga
current natural
cannot close."
that the M&M t
Mars should be
hear.—MICHAE