

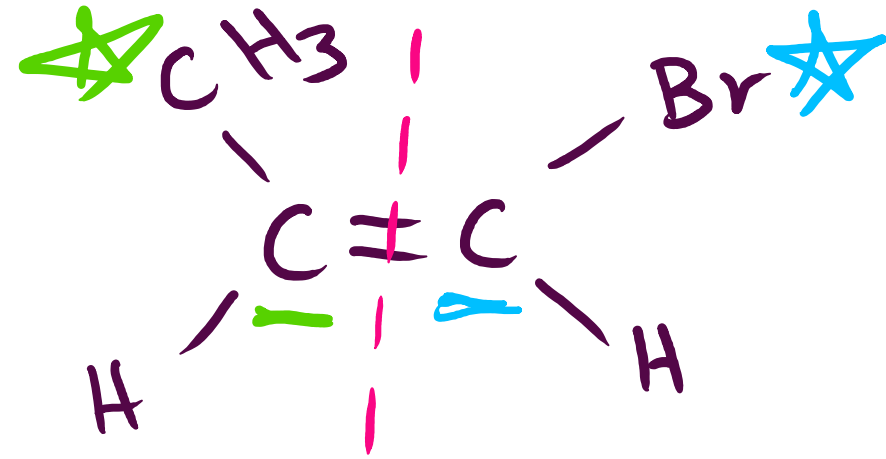
A large orange circle is positioned on the left side of the slide, partially cut off by the edge.

3/27 office
hours

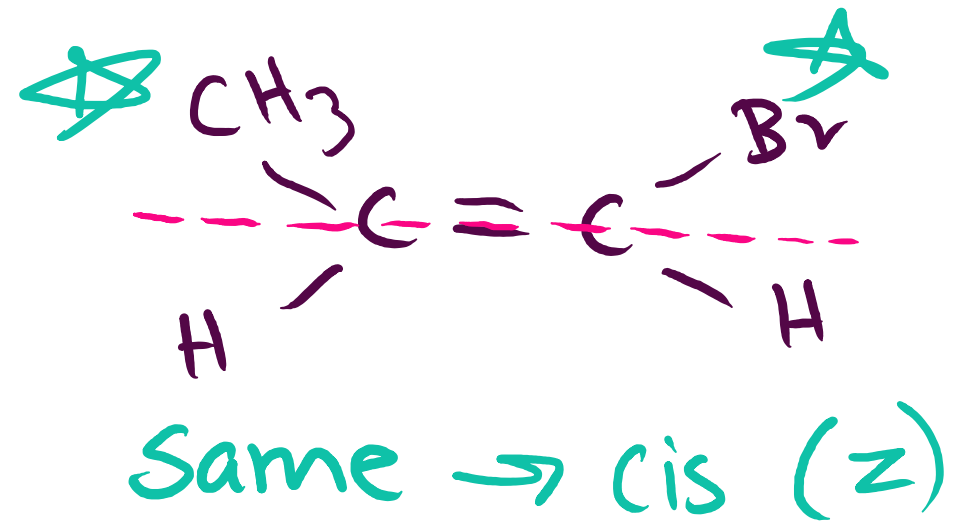
- Determining cis/trans
 - Condensed formula to line structure
 - Determining chirality and isomerism
 - Alkene/alkyne naming
 - Intermediate stability
- 
- A series of four yellow dashed line segments are arranged in a curved, upward-sloping pattern in the bottom right corner of the slide.

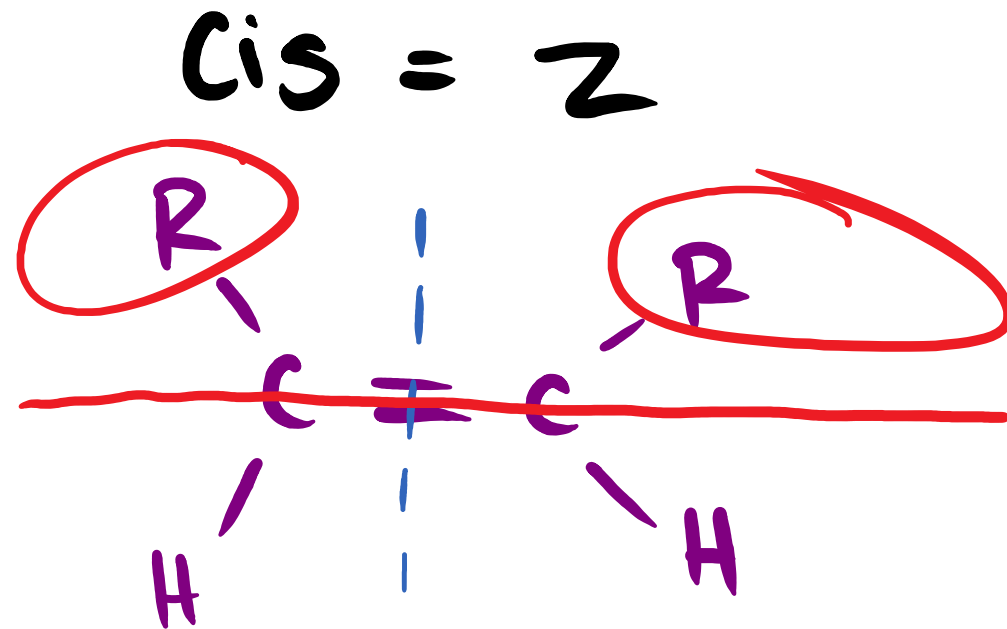
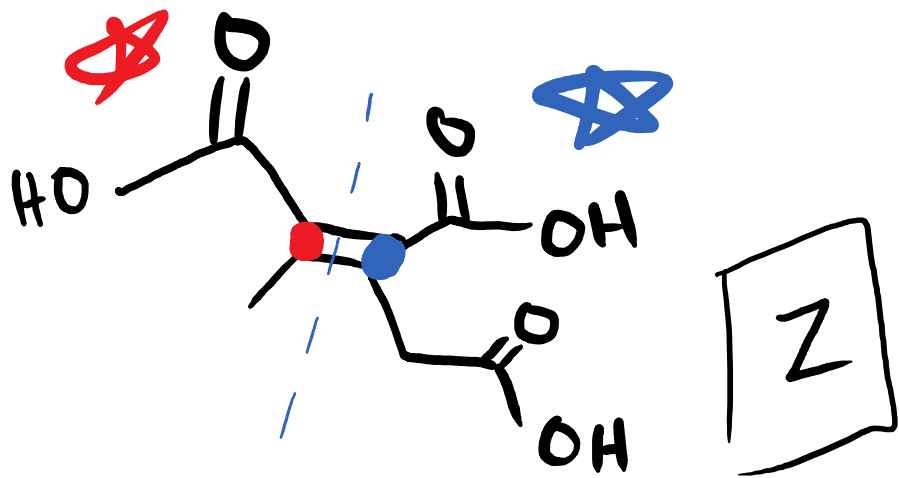
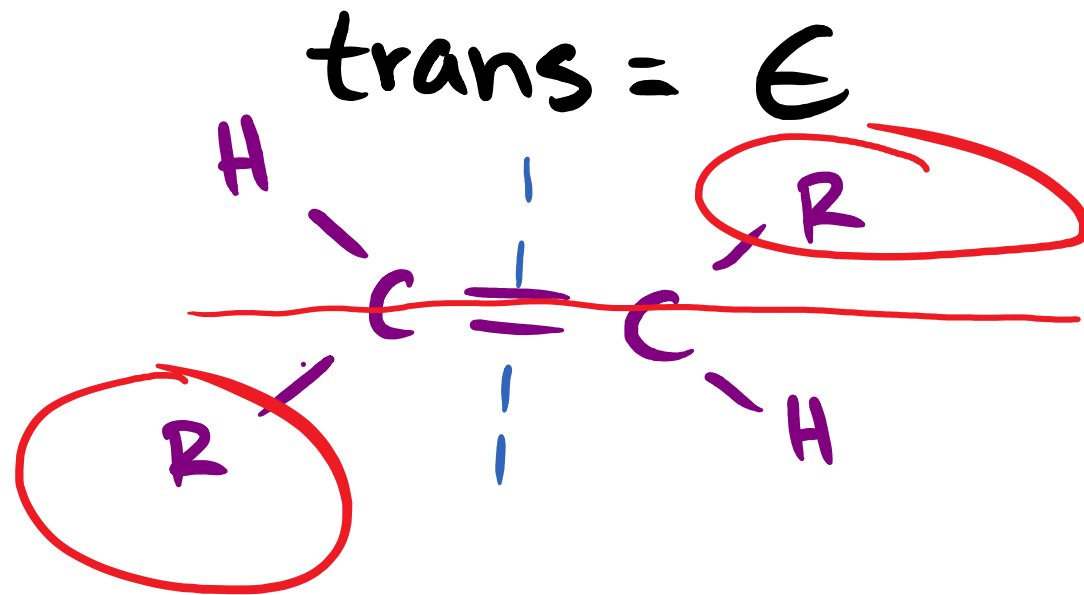
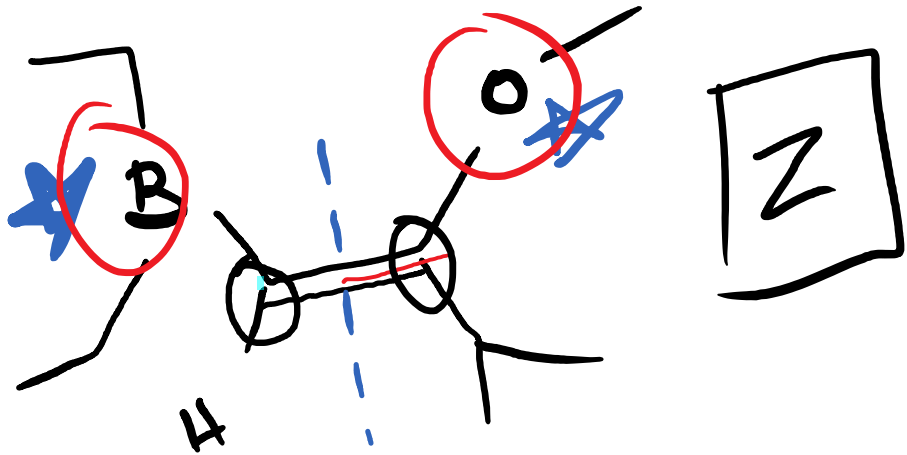
Determining cis (Z) vs trans (E)

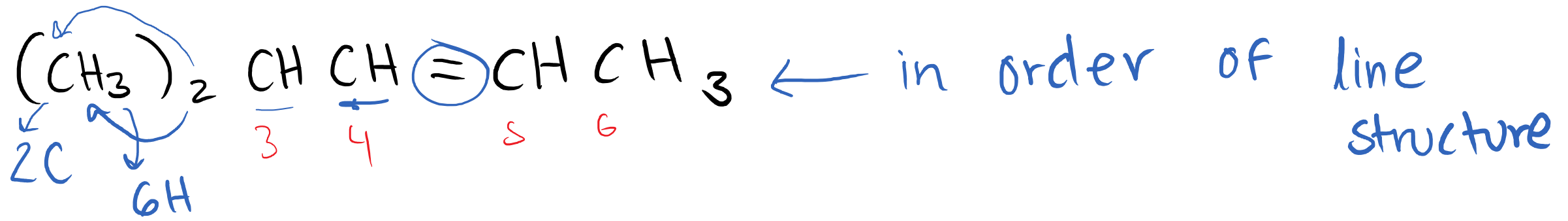
1) cut vertically down double bond & compare priority on SAME carbons



2) cut horizontally & see if higher priority are on same (Z) or different sides (E)

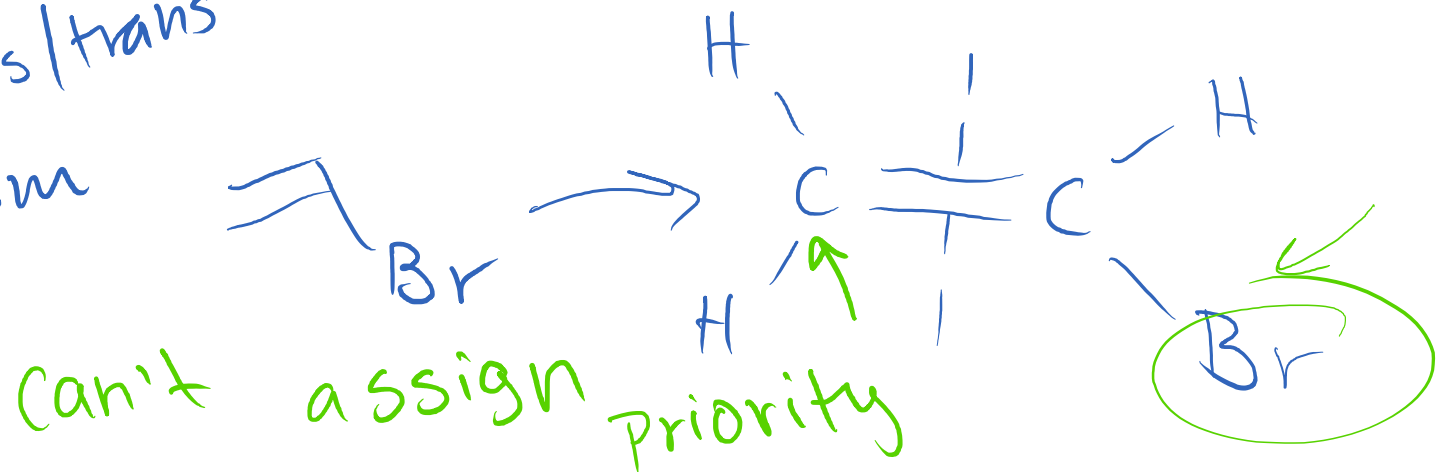
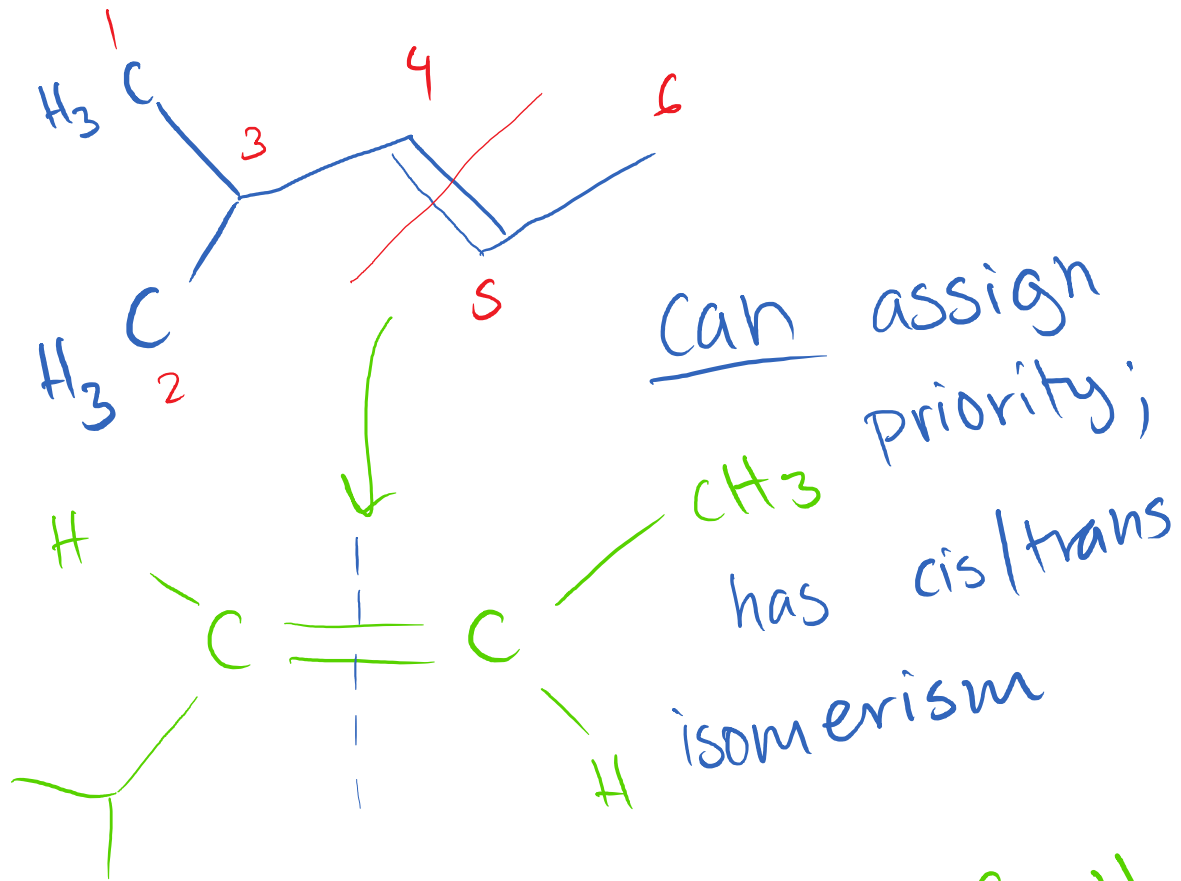


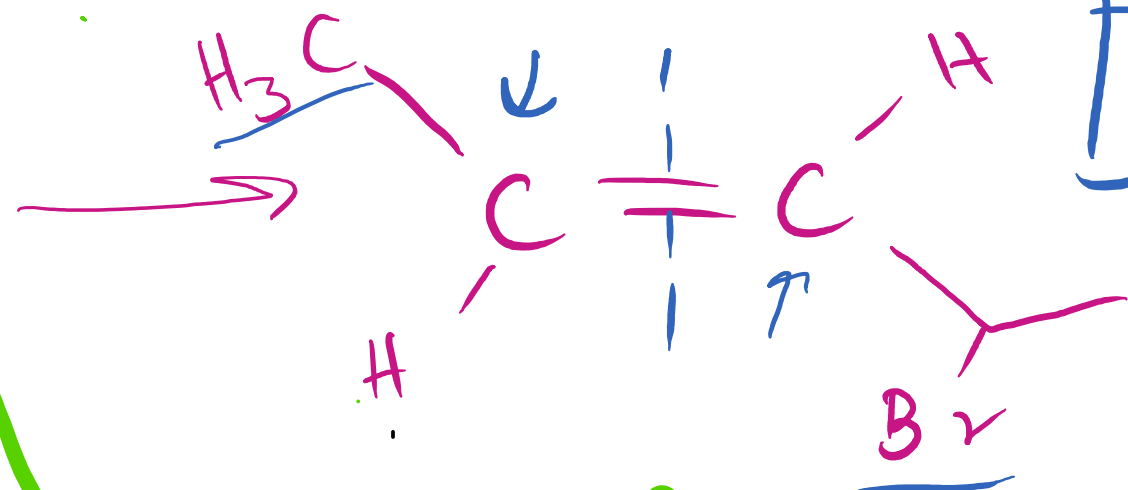
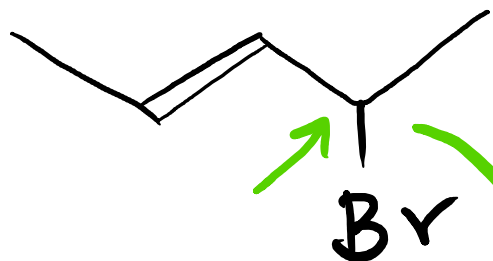




cis / trans isomerism?

↳ each C in double bond needs 2 diff groups

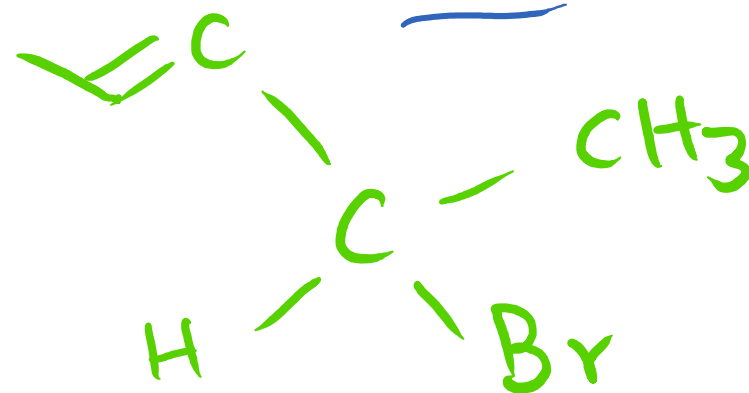




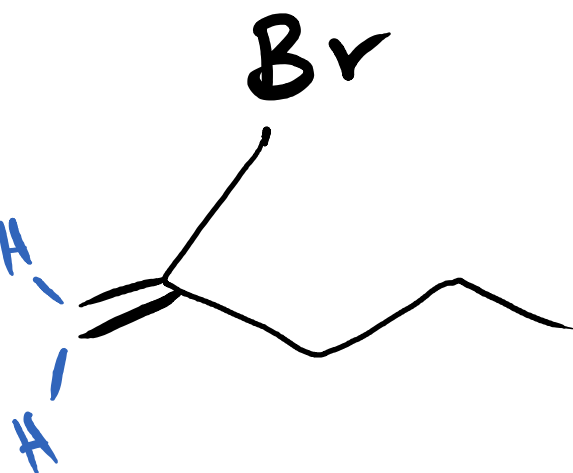
Has E/Z isomerism

Has

chirality



4 different groups on C



1. Chirality?

→ no

2. Cis/trans isomerism?

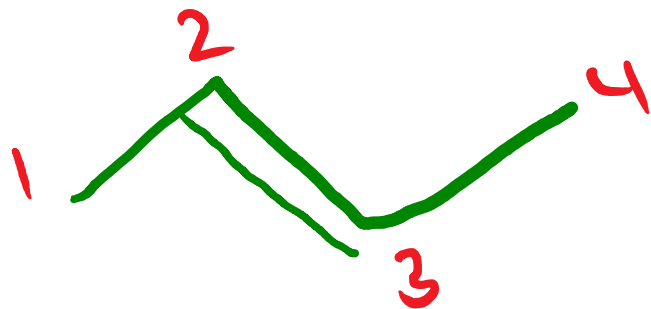
No! C on left doesn't have 2 diff groups

Alkyne naming

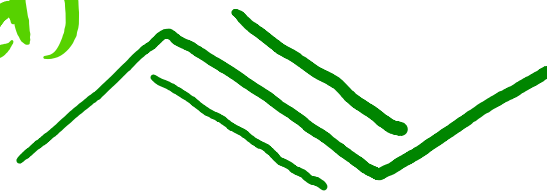
↳ same as alkene

Alk ene ← alkenes (double bond)

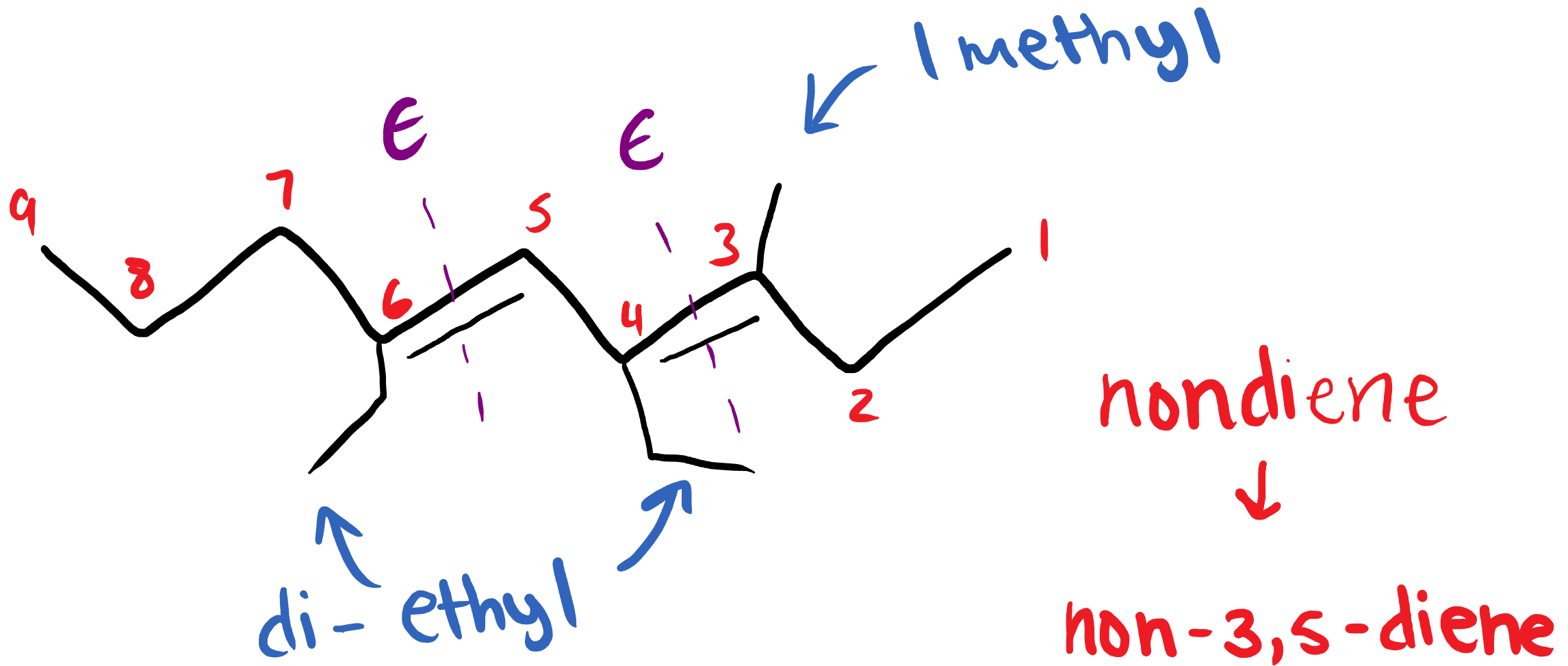
Alk yne ← alkynes (triple bond)



E-but-2-ene

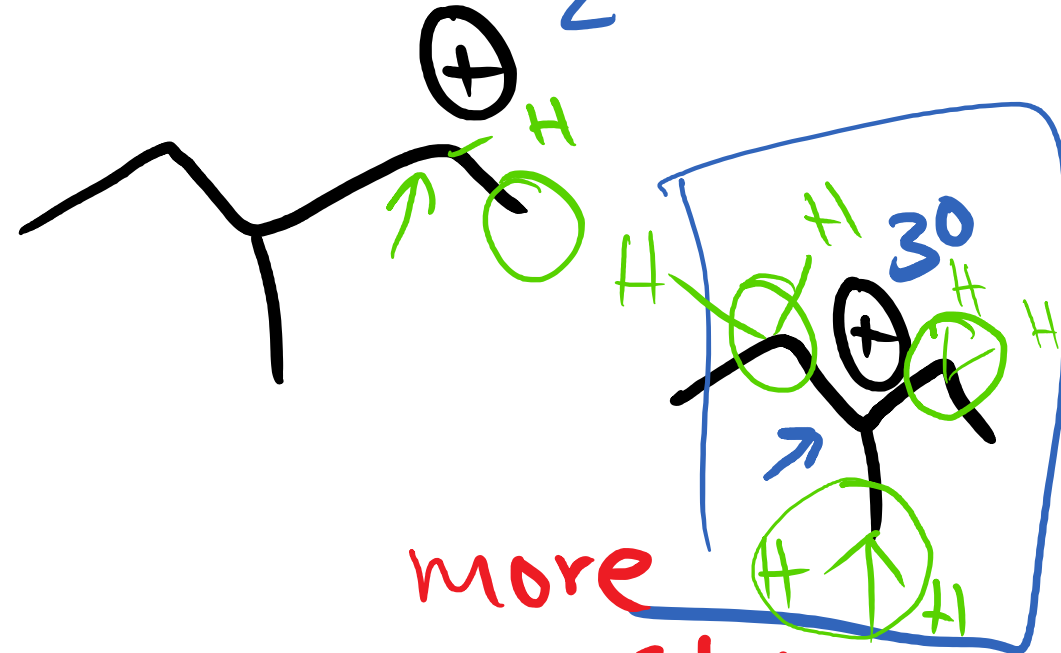
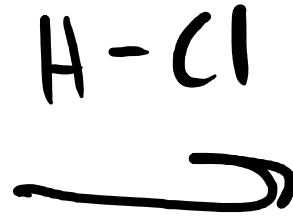
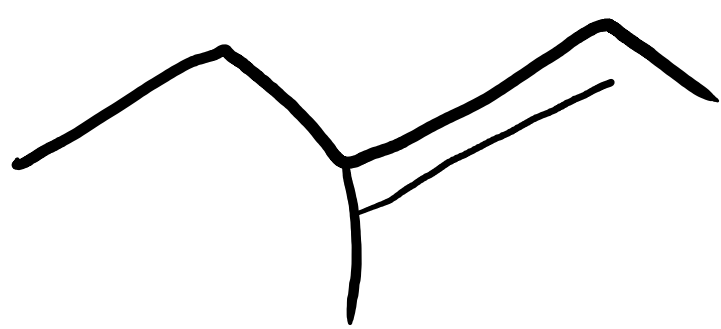


but-2-yne



(E)-4,6-diethyl-3-methyl-3,5-nondiene

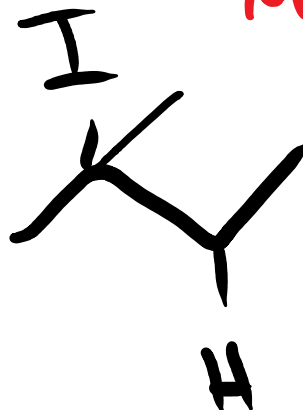
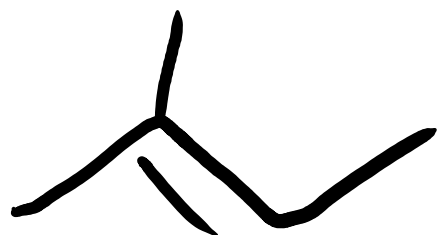
intermediates:



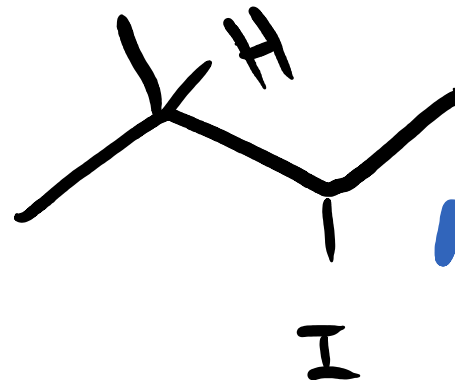
methyl (CH_3) is e^- Donating

more
Stable
(major
intermed.)

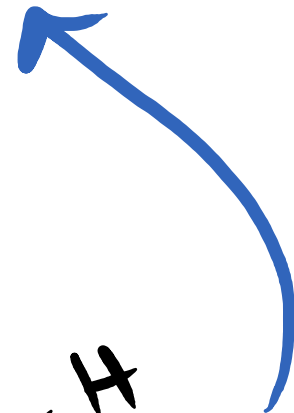
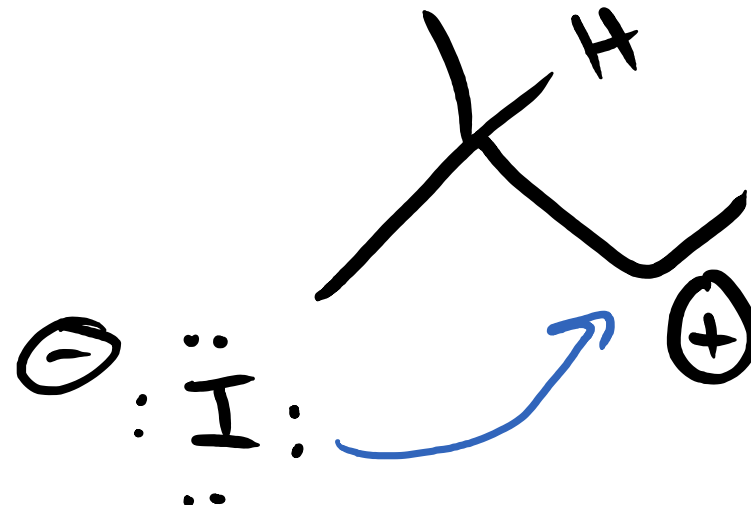
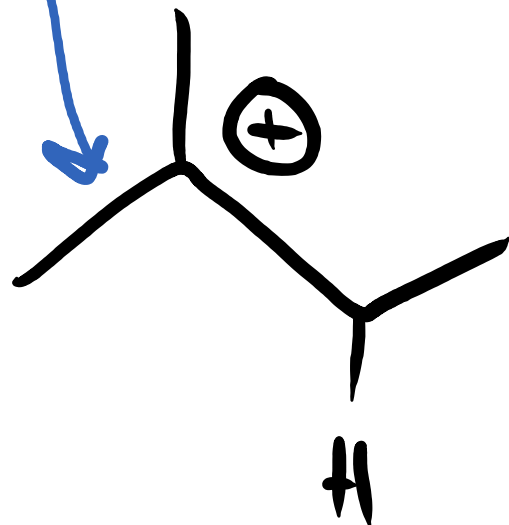
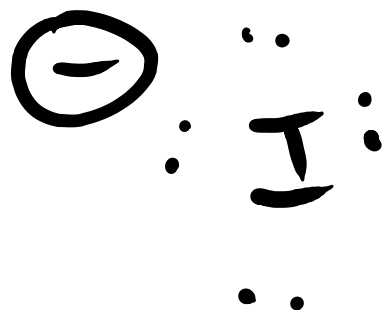
↳ high e^- density offsets (+)
 C^+ stability: $3^\circ > 2^\circ > 1^\circ$



major



minor

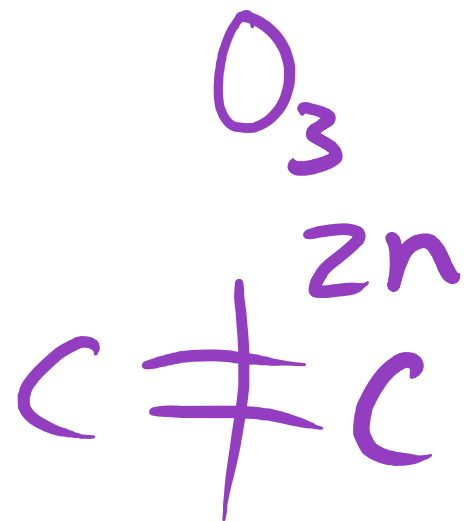
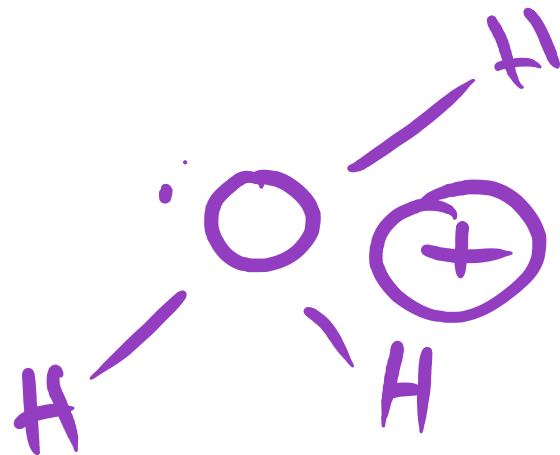


bc 3° C^+ is
more stable

Major

minor

1) Add in Charges



2) arrows grab from e^- to $(+)$

