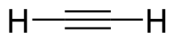
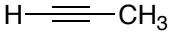
Nomenclature of Alkynes

Rules:

- Find longest chain with max number of multiple bonds
- Number from end to give 1st multiply bonded position the lowest number
- Drop "ane" and add "yne"
- For multiple triple bonds, drop "ne" and add "diyne"," triyne", etc.



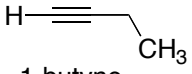
ethyne
acetylene



propyne

methylacetylene (common name)

Structural isomers



1-butyne

ethylacetylene

2-butyne

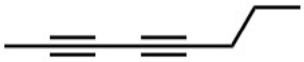
dimethylacetylene

Multiple alkynes end with:

2	C≡≡C	diyne
3	C≡≡C	triyne
4	C≡≡C	tetrayne

Mixed double and triple bond containing compounds are "eneynes"

Example 1:

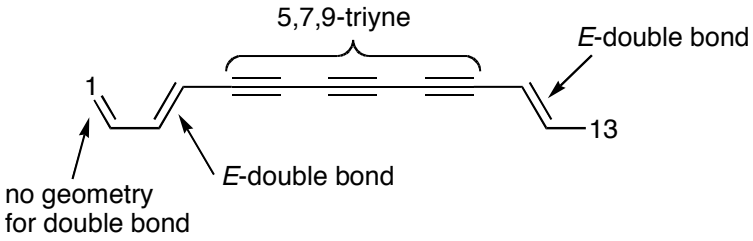


2,4 - Octadiyne

Example 2:

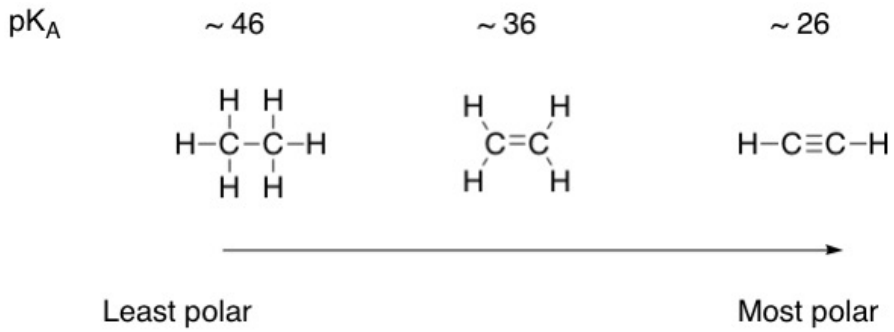
The below example is from canola – defense substance (anti-nematode)

Parent alkane of 13 carbons is tridecane – hence trideca



3*E*,11*E*-trideca-1,3,11-triene-5,7,9-triyne

Characteristics of Alkanes, alkenes, and alkynes



Alkynes have higher boiling point, melting point, and density