CHEM 261 October 21, 2020

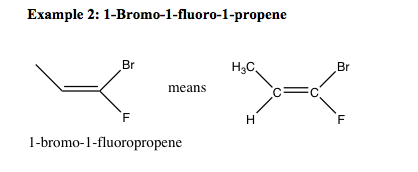
**Alkene and Alkyne Nomenclature**

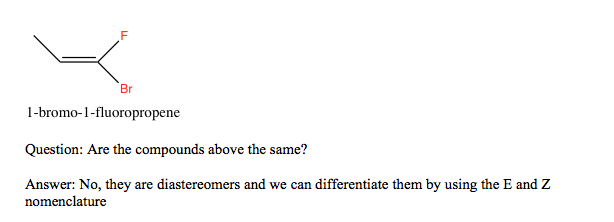
**E, Z - Nomenclature**

E - Entegegen - Opposite

Z - Zusammen - Together

Naming based on atomic number, similar process to identifying S/R stereochemistry





**E, Z - Nomenclature**

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**Example 1:** **1-bromo-1-fluoro-1-propene**

- compare the atomic no. of the adjacent atoms.

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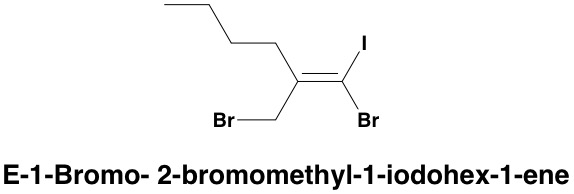
**Example : 1,3-dibromo-1-fluoro-2-methyl-1-propene**



Therefore the name is: (Z)-1,3-dibromo-1-fluoro-2-methyl-1-propene

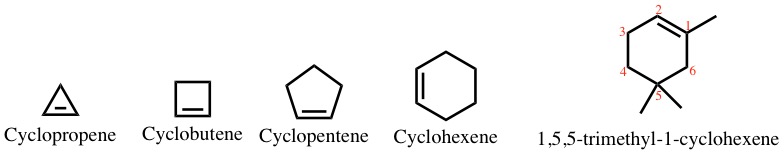
If you cannot decide on basis of atomic number of atoms directly attached to double bond, go to the next set of atoms until a higher atomic number is found

**Example 3:**



Iodine is on the opposite side to the bromomethyl (highest priority groups on either side of the alkene) and so the stereochemistry is deemed E.

**Nomenclature of Cycloalkenes**

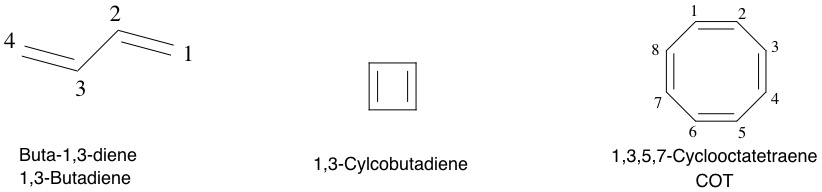


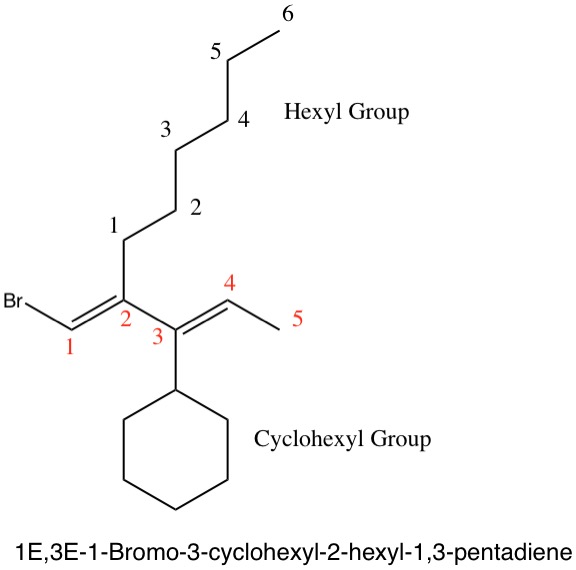
**Nomenclature of alkenes with multiple carbon-carbon double bonds (poly-enes):**





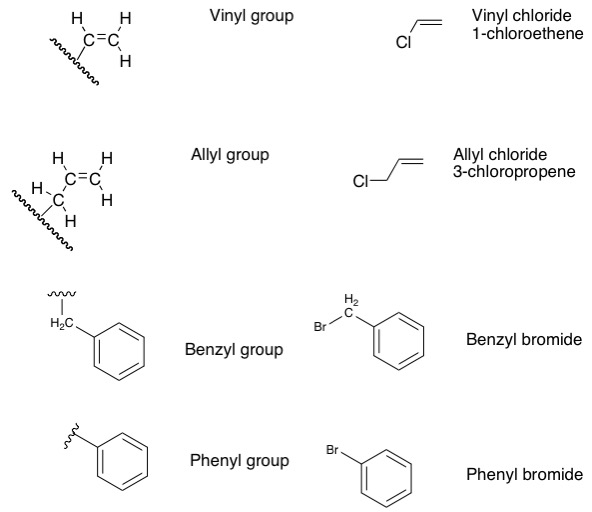
Drop -ne and add “diene”, “triene”, etc.



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Note: Carbons attached to double and triple bonds are depicted as additional carbon-carbon bonds in the representations

**Special Nomenclature of Common Groups:**



phenyl bromide is commonly called bromobenzene