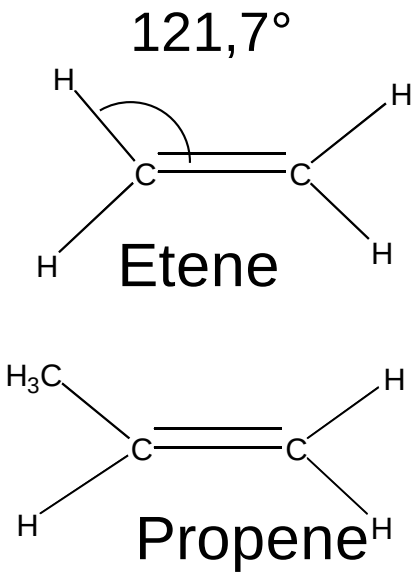
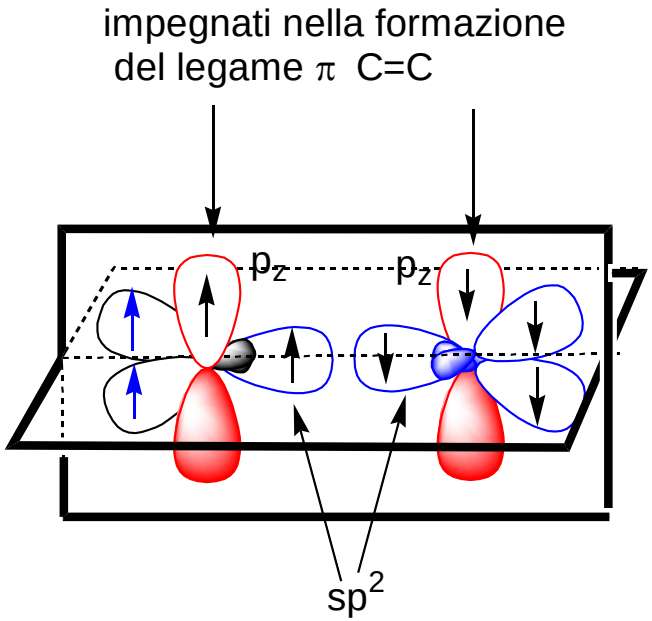
Alcheni (olefine)

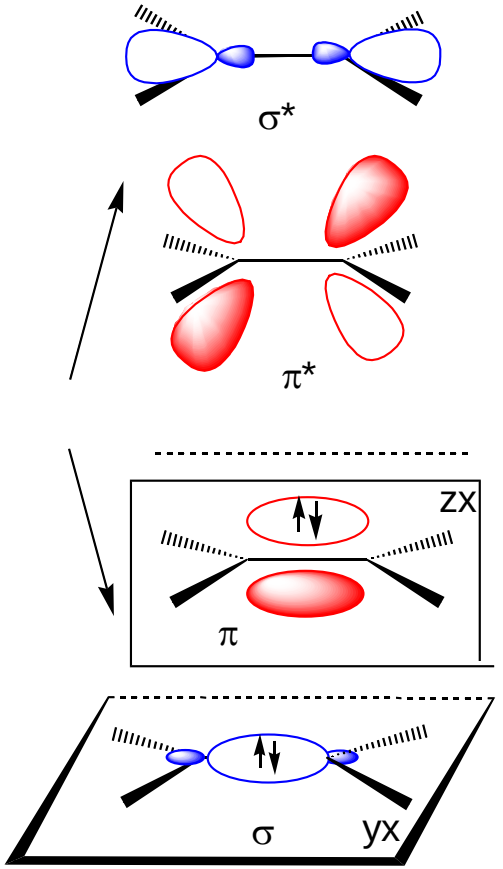
Formula generale C_nH_{2n}

idrocarburi contenenti il doppio legame C=C

Il carbonio impegnato nel doppio legame è ibridato sp^2



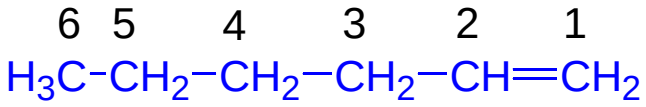




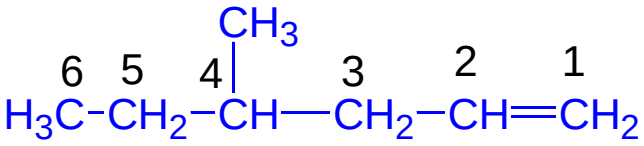
Nomenclatura degli alcheni

IUPAC

Cambiando il suffisso -ano (degli alcani) in -ene

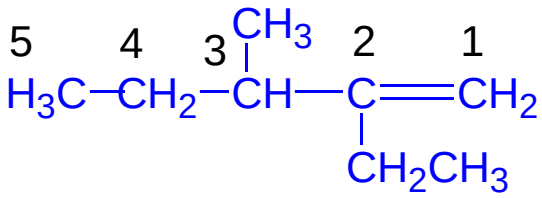


1-esene



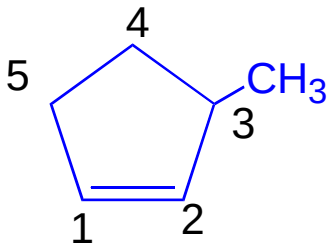
4-metilesene

Si prende la catena più lunga contenente il doppio legame

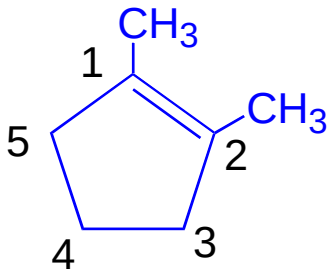


2-etil-3-metilpentene

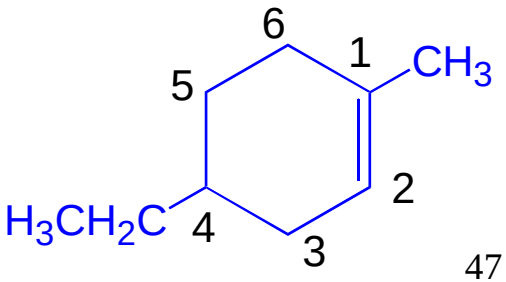
Cicloalcheni



3-metilciclopentene



1,2-dimetilciclopentene

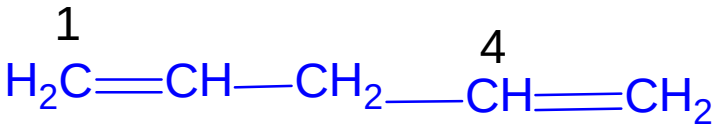


4-etil-1-metilcicloesene

Dieni

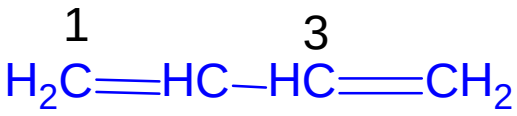
Gli alcheni con due doppi legami sono detti dieni

Dieni isolati

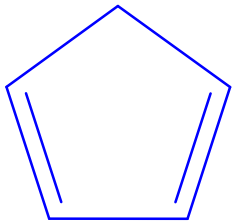


1’4-pentadiene

Dieni coniugati



1’3-butadiene



1’3-ciclopentadiene

Alchini C_nH_{2n-2}

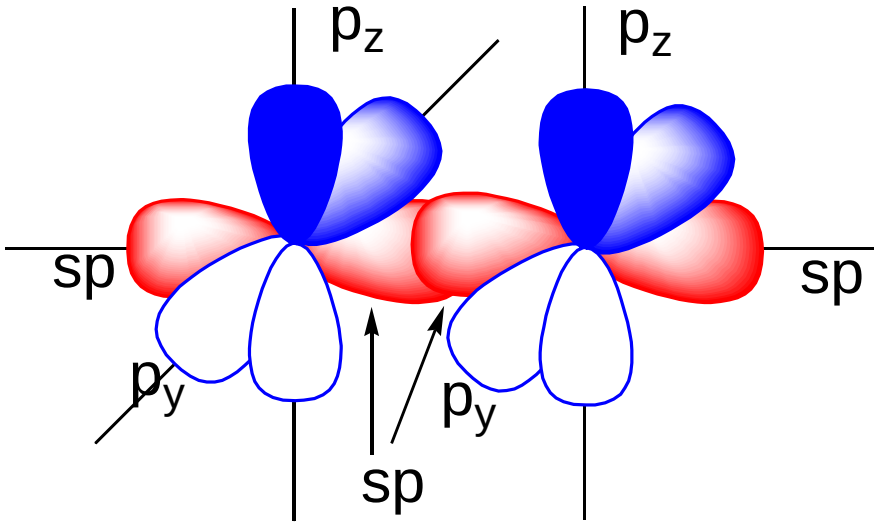
I carboni del triplo legame sono ibridati sp

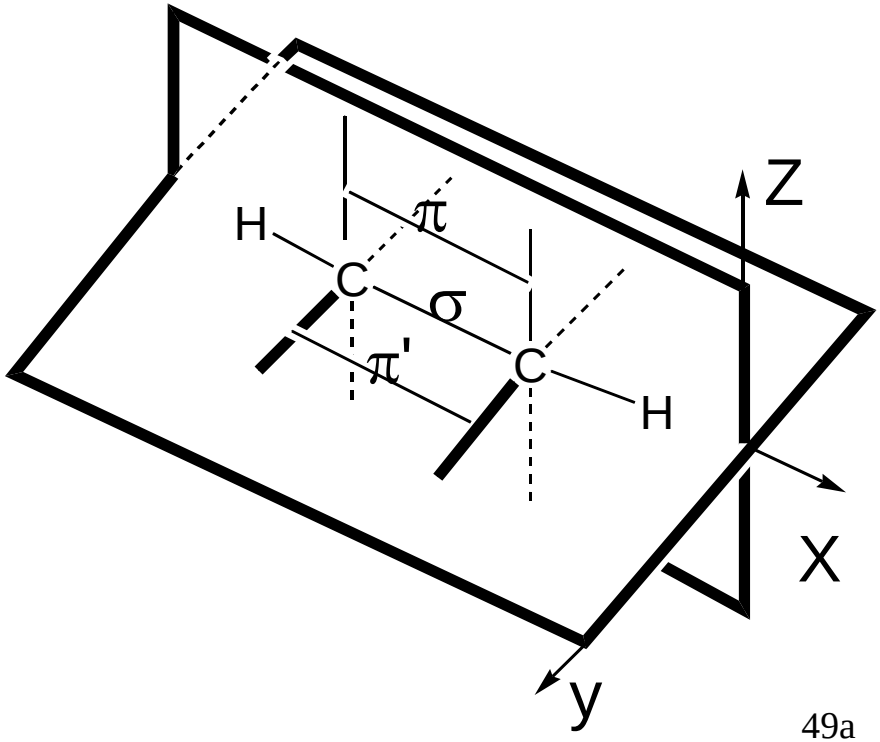
ACETILENE op. ETINO

PROPINO

1-BUTINO

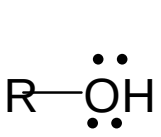
2-BUTINO





Alcoli

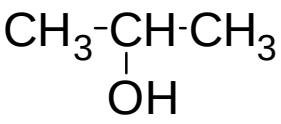
Formalmente derivano da un alcano per sostituzione di un idrogeno con l'ossidrile (-OH), che quindi è legato ad un C sp^3



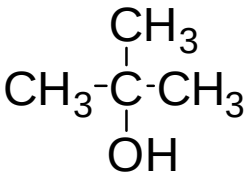
legami C-O- e -O-H entrambi polarizzati

CH_3OH alcol metilico o metanolo

CH_3CH_2OH alcol etilico o etanolo **alcol 1°**



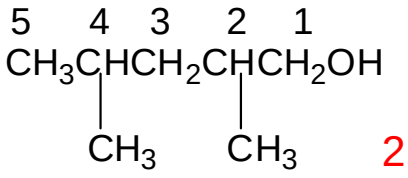
alcol isopropilico o 2-propanolo **alcol 2°**



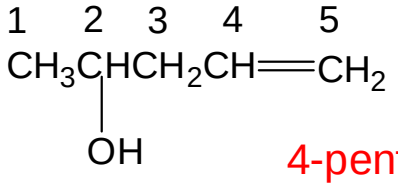
alcol *terz*-butilico o
2-metil-2-propanolo **alcol 3°**

Alcoli

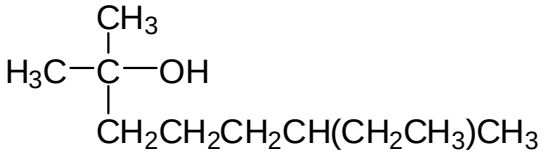
La catena lineare più lunga contenente il carbonio con l'OH fornisce il nome base dell'alcol che deve terminare con la desinenza **-olo.** La numerazione deve essere tale da avere il carbonio con l'OH con il numero d'ordine più basso



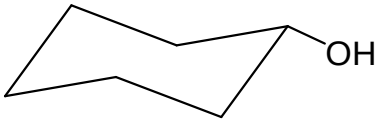
2,4-dimetil-1-pentanolo



4-penten-2-olo



2,6-dimetil-2-ottanolo

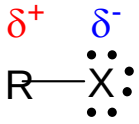


cicloesanolo

Alogenuri alchilici e arilici

Derivano formalmente da un alcano in cui un idrogeno è stato sostituito da un alogeno, il quale quindi è legato ad un C sp^3

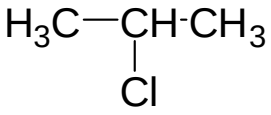
R-X dove X= F, Cl, Br, I il legame è polarizzato



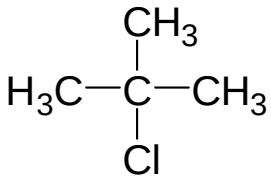
IUPAC Il nome dell'alcano è preceduto dal nome dell'alogeno

CH_3Cl clorometano o cloruro di metile

CH_3CH_2Cl cloroetano o cloruro di etile **alogenuro 1°**



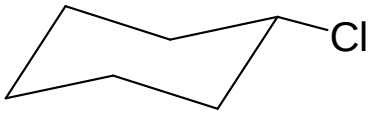
2-cloropropano o cloruro di isopropile **alogenuro 2°**



2-cloro-2-metilpropano o cloruro di *terz*-butile **alogenuro 3°**

$CHCl_3$ triclorometano o cloroformio

CCl_4 tetraclorometano o tetracloruro di carbonio



clorocicloesano