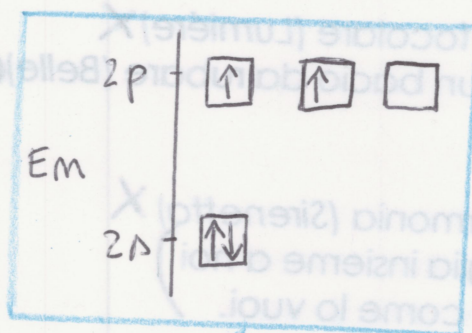


IBRIDAZIONE

≠ geometria delle molecole che può formare il carbonio

CONFIGURAZIONE $2s^2 2p^2$

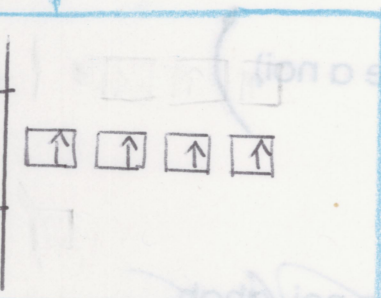
Ma fa + legami



uno, 2 o 3 orbitali possono cedere parte dell'energia all'orbitale s

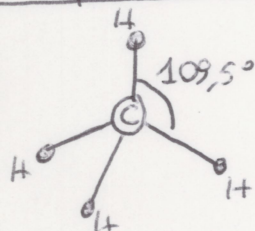
Forma orbitali ibridi

La struttura energetica dipende da quanti orbitali p sono diventati s



sp³ 4 legami

CH₄ METANO

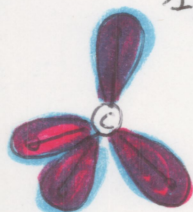


Orbitali atomici

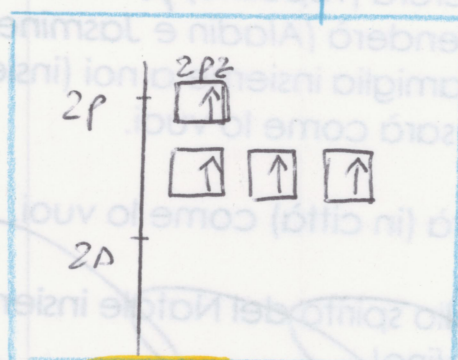


Non sono
me sferici (s)
me asimmetrici
(p) (ibridati)

3/4 p e
1/4 s

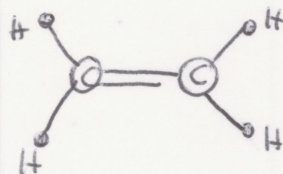


Sovrapposizione
frontale

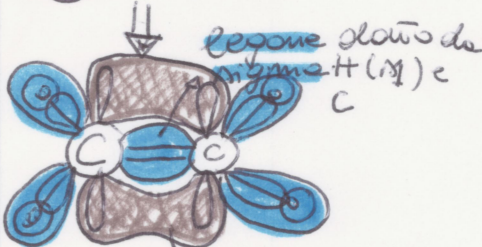
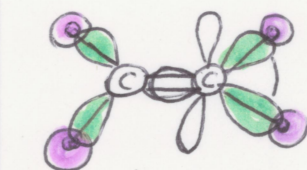


sp²

C₂H₄ ETILENE

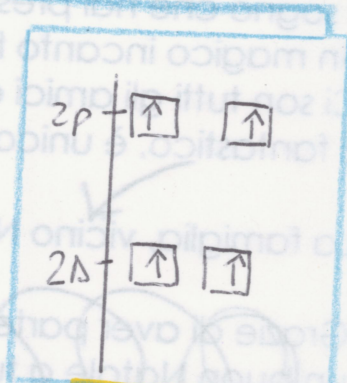


Orbitali atomici



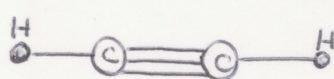
Legame
doppio
impedisce
rotazione

legame
π sovrapposizione
laterale
2p_z

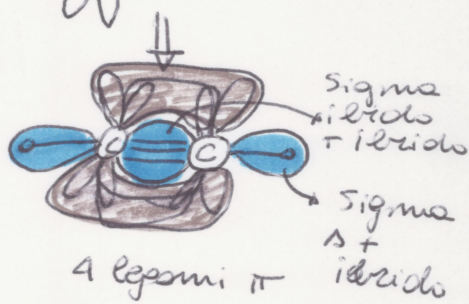
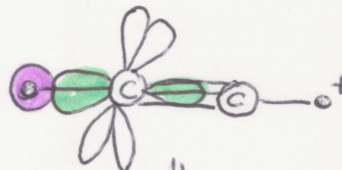


sp

C₂H₂ ACETILENE



Orbitali atomici



4 legami π
Legame T₂ p
impedisce rotazione

Nuovi orbitali Orbitali s Sigma π