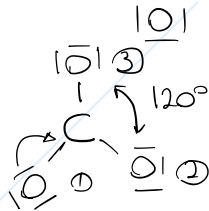
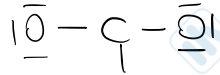


Esercizi lezione 06/10
Disegno delle molecole con la VB

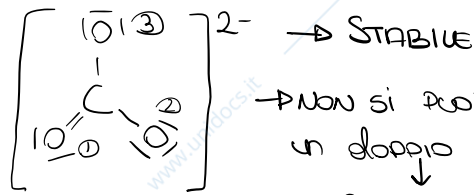
CO_3^{2-} $4 + 6 \cdot 3 + 2 = 24$ elettroni da sistemare = 12 coppie

atomo → meno elettronegativo a eccezione quando è presente H



SP² → GEOMETRIA TRIGONALE
CARBONIO NON COMPLETA L'OTTETTO

CARICA FORMALE
CFC = 6 - 4 = -1
CFC = 4 - 3 = 1



→ NON SI PUÒ AGGIUNGERE un doppio legame

C II PERIODO → DOUBBIE ESPANDERE ALL'ORBITALE d
NO → DIVENTEREBBE INSTABILE

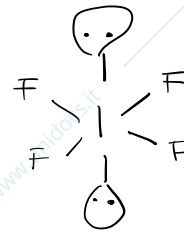
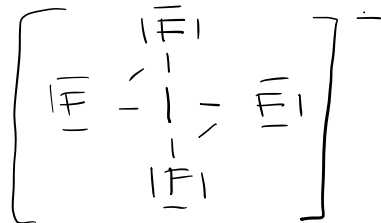
CFO = 6 - 6 = 0

CF = 4 - 4 = 0

CFO = -1 → CARICA NEGATIVA SU ATOMI PIÙ ELETTONEGATIVI → VABONE

IF_4^- FLUORURO DI IODIO

$e^- = 7 \cdot 4 + 1 = 36e^- = 18$ COPIE

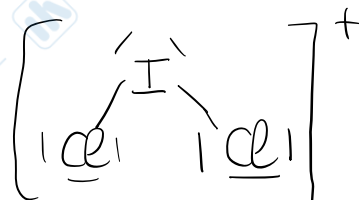
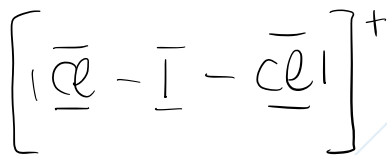


SP³d²

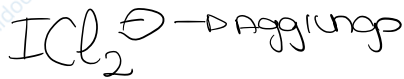
N° STERICO = 6 = GEOMETRIA OTTAEDRICA

ICl_2^+ → IN DIRETTO DEVO TOGLIERE

$e^- = 7 + 2 \cdot 7 - 1 = 20e^-$

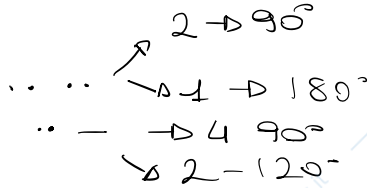
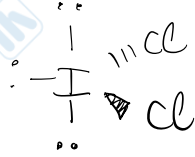


N° STERICO = 4 = SP³

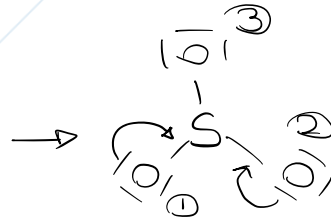
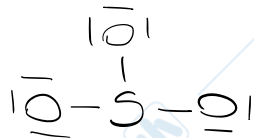
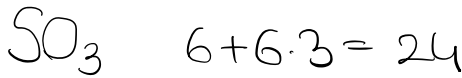


$e^- = 22e^-$

$N_{STERICO} = 5$



↓
 STRUTTURA FAVORITA



$CF_2 = 6 - 4 = 1$

$CF_3 = 6 - 3 = 3$

→ DOPPIO LEGAME

$N_{STERICO} = 3$

$sp^2 \rightarrow$ GEOMETRIA TRIGONALE

ORBITALI

RICALCOLO 1:

$CF_S = +2$

$CF_{O_1} = 0$

$CF_{O_2,3} = -1$

RICALCOLO 2:

$CF_S = +1$

$CF_{O_1,2} = 0$

$CF_{O_3} = -1$



PUO' FARE UN ALTRO DOPPIO LEGAME PERCHE' Zolfo PUO' ESPANDERE FINO $d^5 \rightarrow$ 3 PERIODO MENTRE 2 PERIODO \rightarrow UN SOLO DOPPIO LEGAME

3 legami doppi

