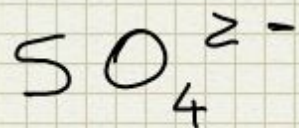
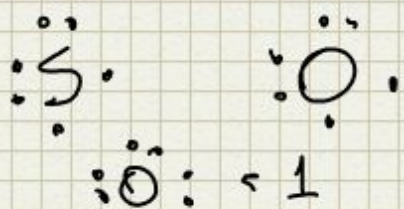


SOLFATO

(ACIDO SOLFORICO)

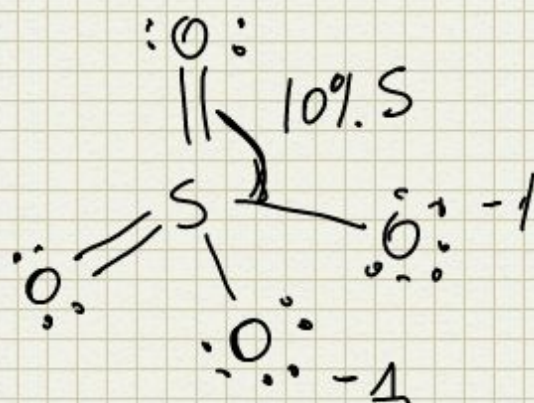
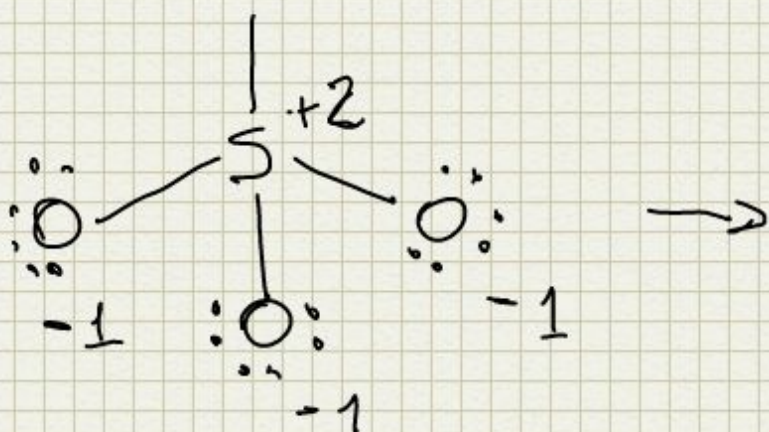


$$\text{m.o. S} = +6$$

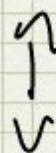


$$6 \cdot 3 + 2 = 20$$

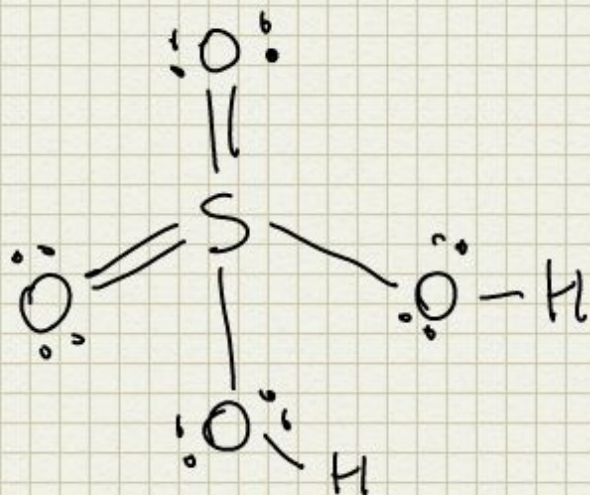
16 COPIE



S IBRIDATO sp^3

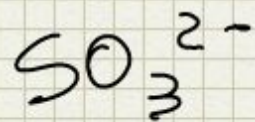


ACIDO SOLFORICO



SOLFITO

(ACIDO SOLFOROSO)

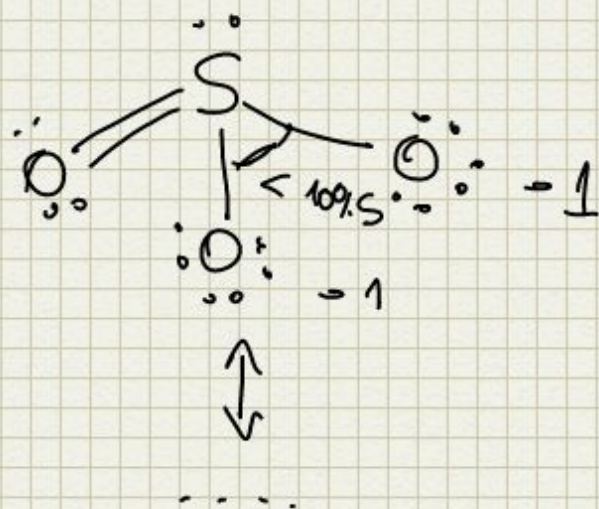
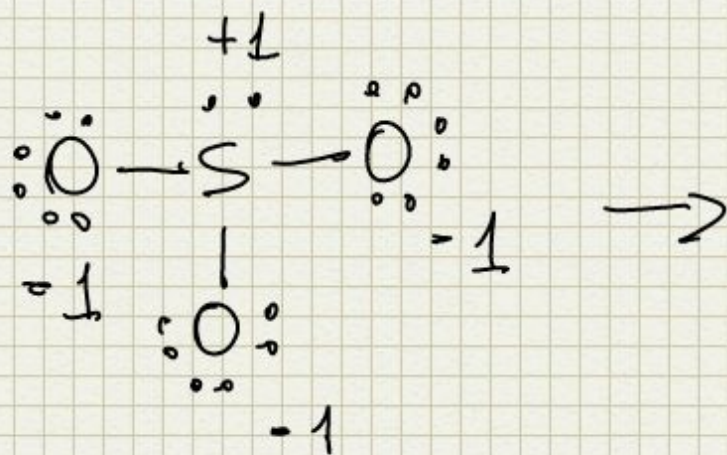


N. OK. S = +4



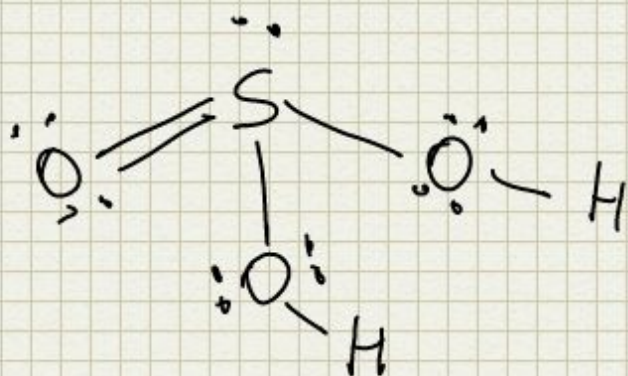
$$6 \cdot 4 + 2 = 26$$

13 COPPIE



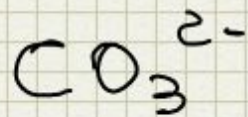
S IBRIDATO sp^3

ACIDO SOLFOROSO



CARBONATO

(ACIDO CARBONICO)

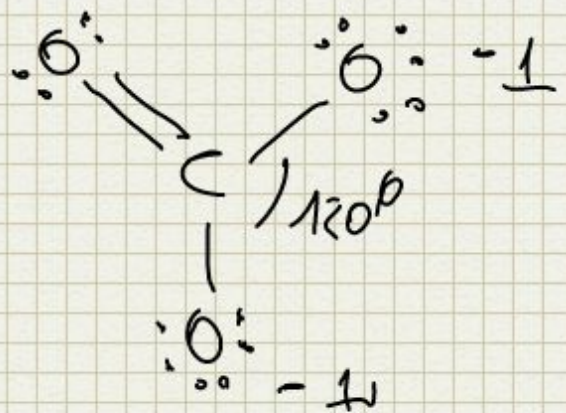
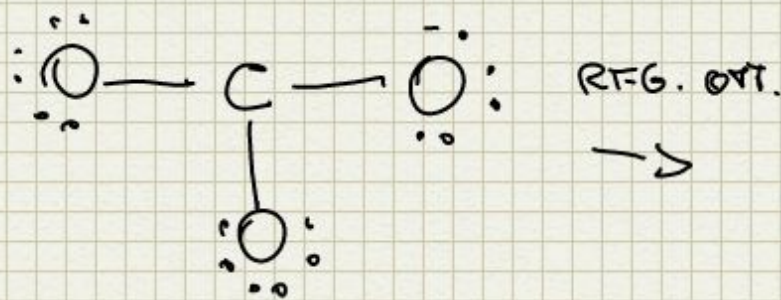


$$\text{n. ox C} = +4$$

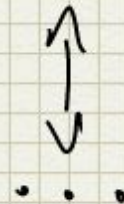


$$6 \cdot 3 + 4 + 2 = 24$$

12 COPPIE

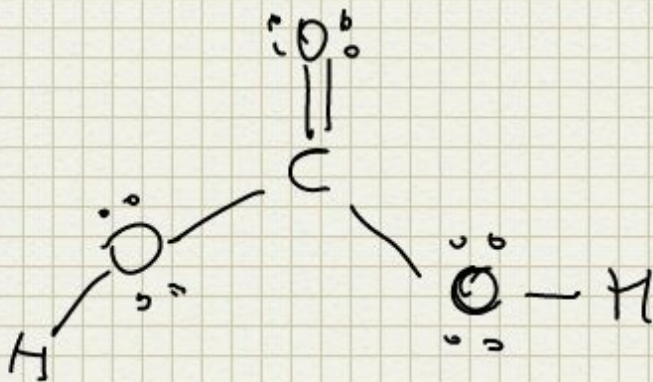


PLANARE



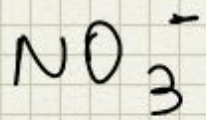
C IBRIDATO Δp^2

ACIDO CARBONICO



NITRATO

(ACIDO NITRICO)



NOX, N = +5

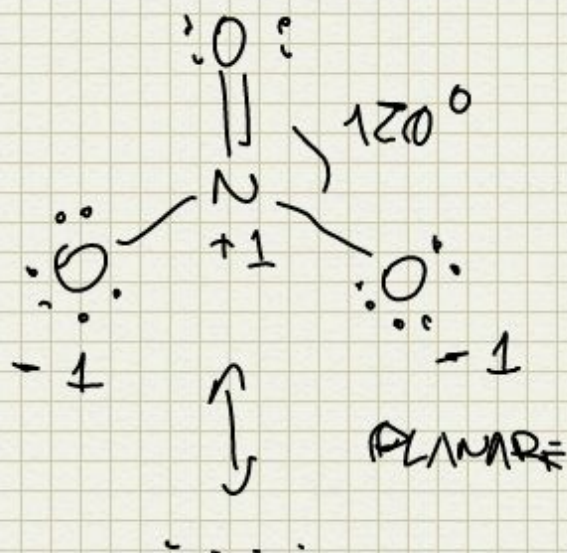


$$6 \cdot 3 + 5 + 1 = 24$$

12 COPPIE

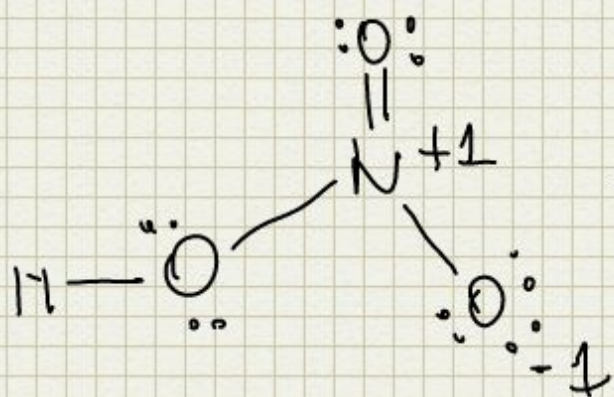


R. ONENIO
→

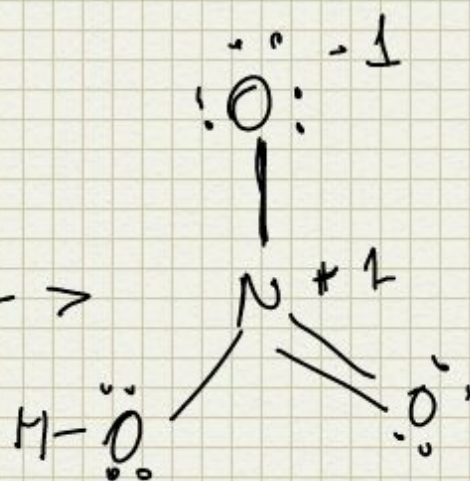


N IBRIDATO sp^2

ACIDO NITRICO

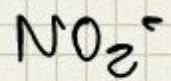


↔



NITRITO

(ACIDO NITROSO)

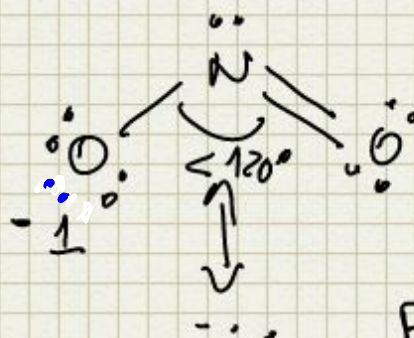
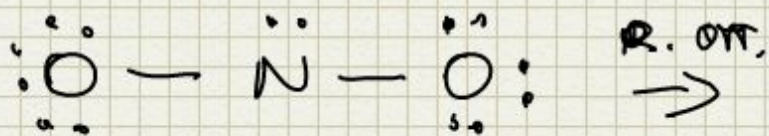


$$\text{n. ox N} = +3$$



$$6 \cdot 2 + 5 + 1 = 18$$

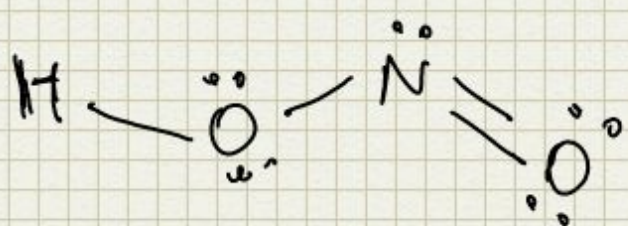
di COPPIE



PLANARE

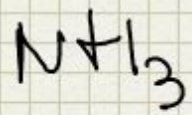
N IBRIDATO sp^2

ACIDO NITROSO

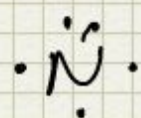


AMMONIACA

(IONE AMMONIO)

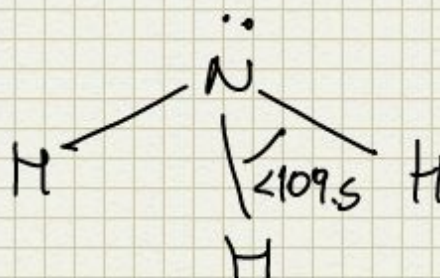
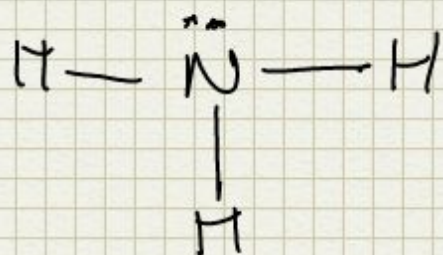


N. ox. N = +3



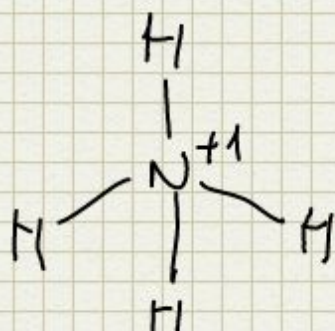
$$5 + 3 = 8$$

4 COPPIE

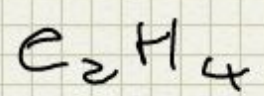


IBRIDATO sp^3

IONE AMMONIO

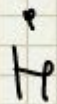
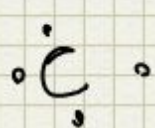


ETHYLENE



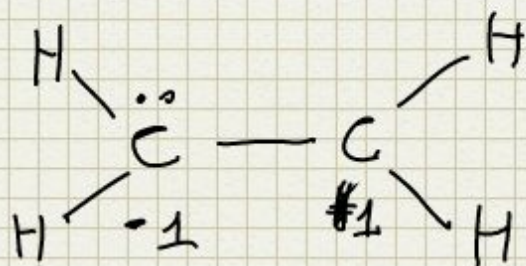
M.OX

$$C = -2$$

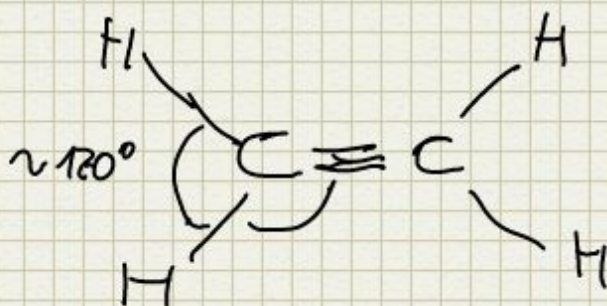


$$4 \cdot 2 + 4 = 12$$

6 COFFIE



overlapp.
→

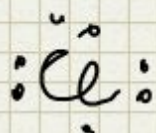
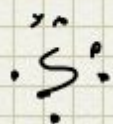


C IBRIDATIO sp^2 e legano π dov'eff. $2p$

DICLORURO DI ZOLFO

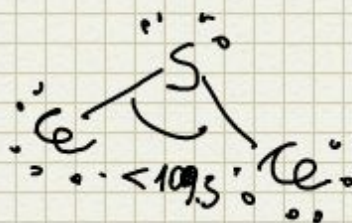
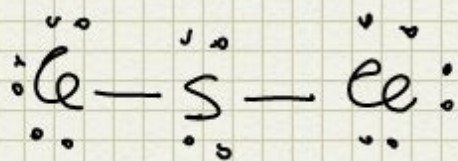


n. OX S, **+2**



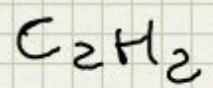
$$7 \cdot 2 + 6 = 20$$

10 COPPIE

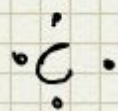


S IBRIDATO sp^3

ACETYLENE



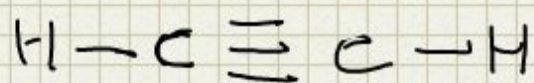
$$\text{MOK. } c = -1$$



H.

$$4 \cdot 2 + 2 = 10$$

5 COPPIE

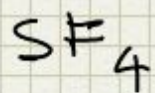


C IBRIDATO sp

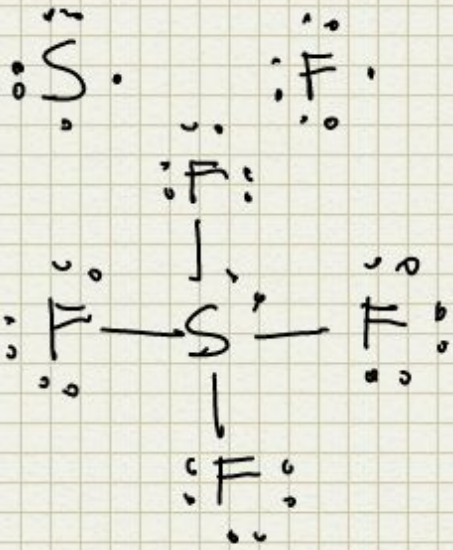
1 σ sp sp

2 π sp $2p$

TETRAFLUORURO DI ZOLFO



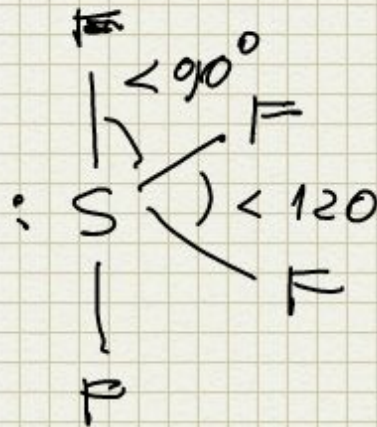
n. ox. S = +4



$$7 \cdot 4 + 6 = 34$$

17 coppie

S IBRIDATO $\rightarrow sp^3 d$



POCLORTD

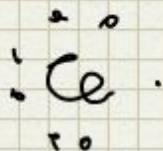
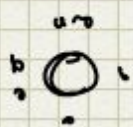
CeO^+

m.ox $\text{Ce} = +1$

ACIDO

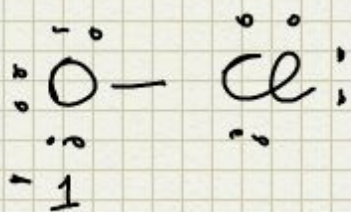
IPOLOROSO

H/CeO



$$7 + 6 + 1 = 14$$

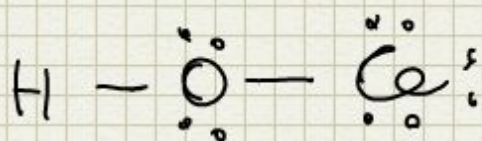
7 coppie



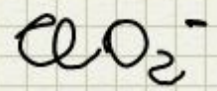
lineare

ACIDO

IPOCLOROSO



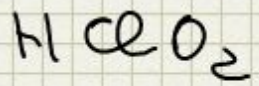
CLORITO

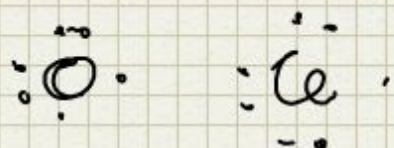


n. ox $\text{Cl} = +3$

ACIDO

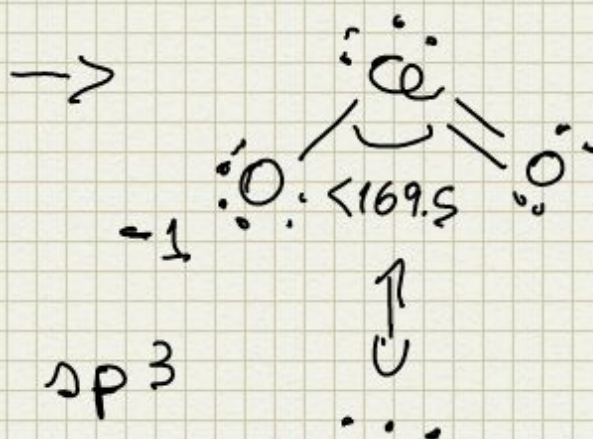
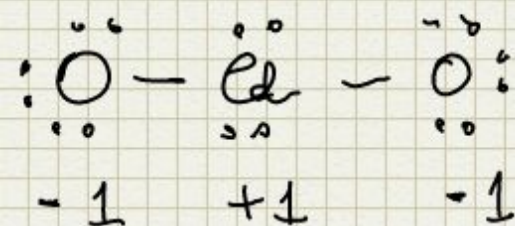
CLOROSO





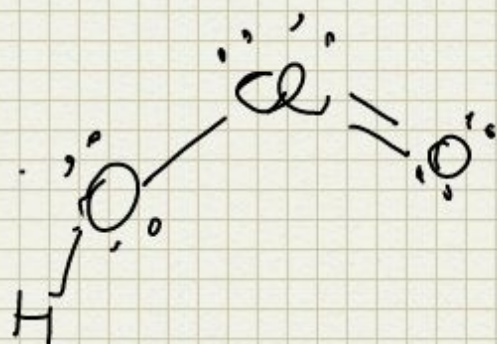
$$6 \cdot 2 + 7 + 1 = 20$$

10 COPPIE

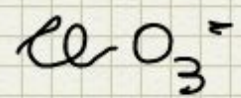


Cl IBRIDATO sp^3

ACIDO CLOROSO



CLORATO



num. ox Cl = +5

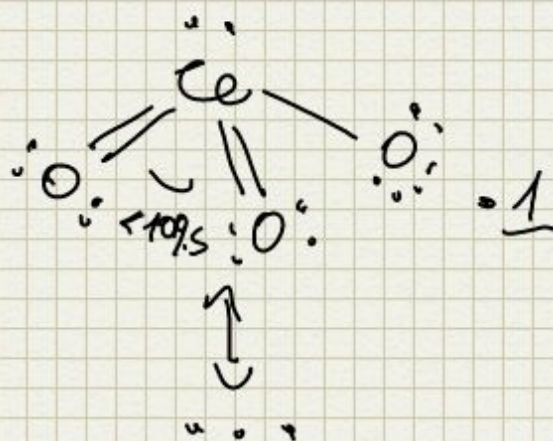
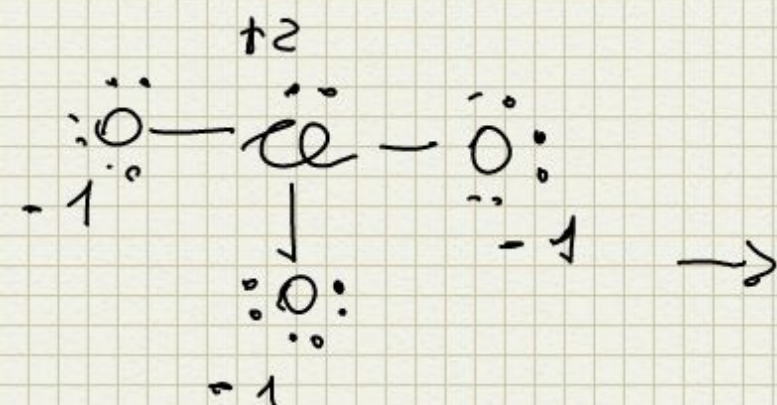
ACIDO CLORICO





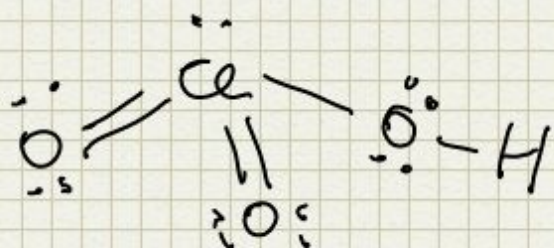
$$6 \cdot 3 + 7 + 1 = 26$$

13 COPPIE

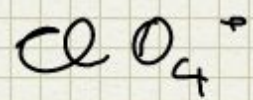


Cl IBRIDATO sp^3

ACIDO CLORICO

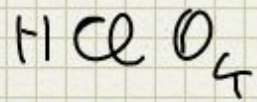


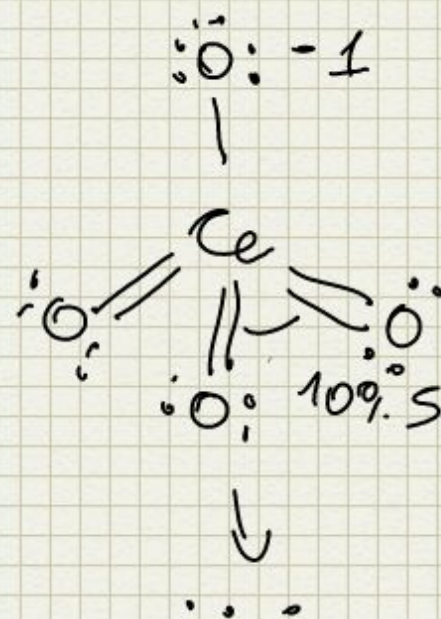
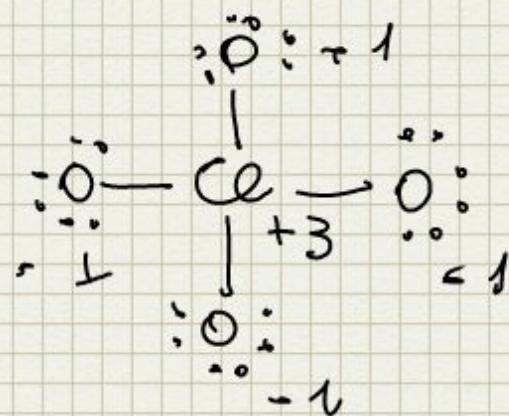
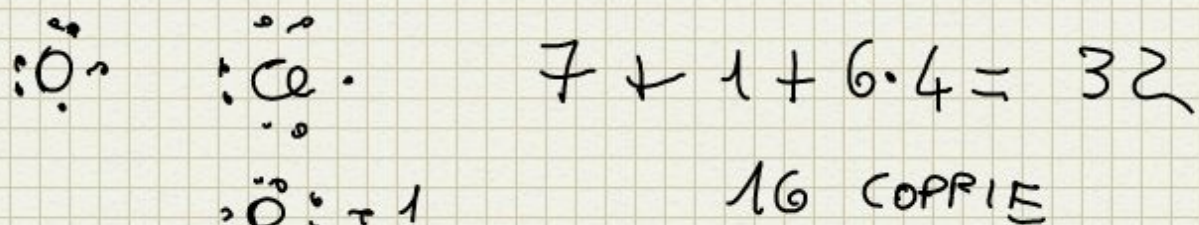
PERCLORATO



n. ox. Cl = +7

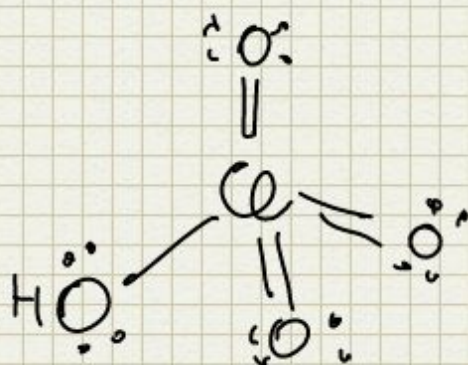
ACIDO PERCLORICO





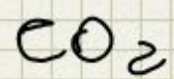
ce 1BR1DAYO sp3

ACIDO PERCLORICO

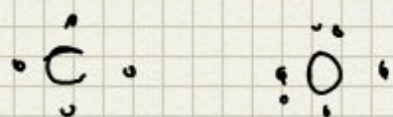


ANIONIDE

CARBONICA

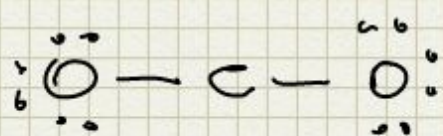


$$\text{max } C = +4$$

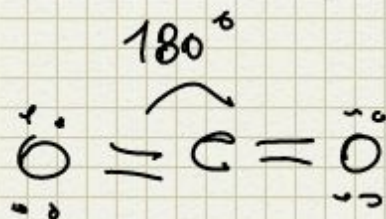


$$6 \cdot 2 + 4 = 16$$

8 coppie



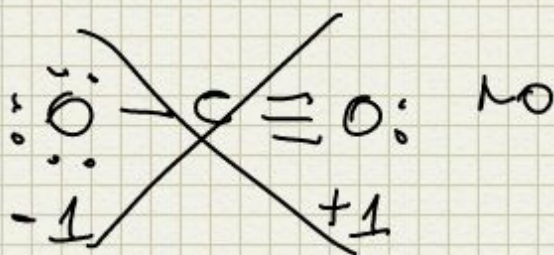
OTTE.
→



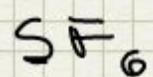
C IBRIDATO ΔP

2 legami σ

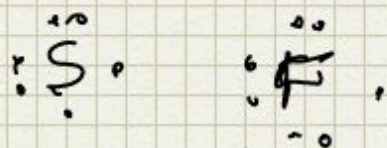
2 legami π



ESAFLUORURO DI ZOLFO

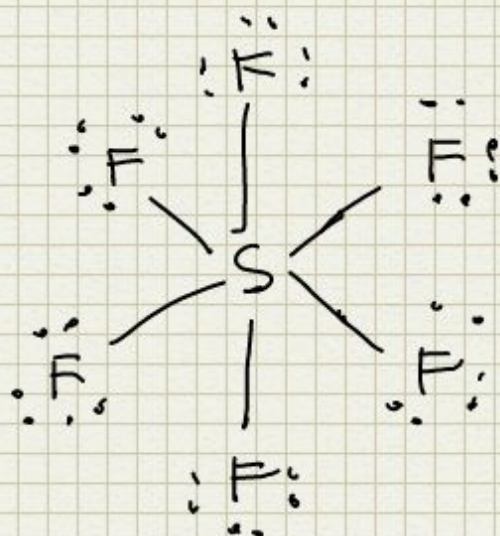


nox $\xi = +6$



$$7 \cdot 6 + 6 = 48$$

24 COPPIE



6 IBRIDATO sp^3d^2

$$\angle \text{FSF} = 90^\circ$$

Lo ione cianato OCN^- ha l'atomo meno elettronegativo il C al centro. Lo ione fulminato molto poco stabile CNO^- ha la stessa formula ma e' l'atomo di N ha trovarsi al centro.

a) disegnare le tre possibili formule di risonanza del CNO^-

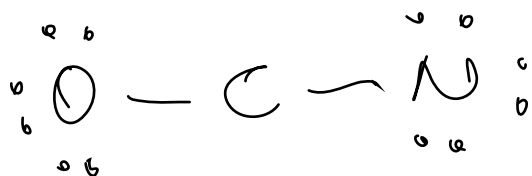
b) quale e' la struttura di risonanza piu' stabile

c) il fulminato di mercurio $\text{Hg}(\text{CNO})_2$ è principalmente usato nella produzione di detonatori per esplosivi e di inneschi per cartuccia. Perche' e' cosi' instabile ?

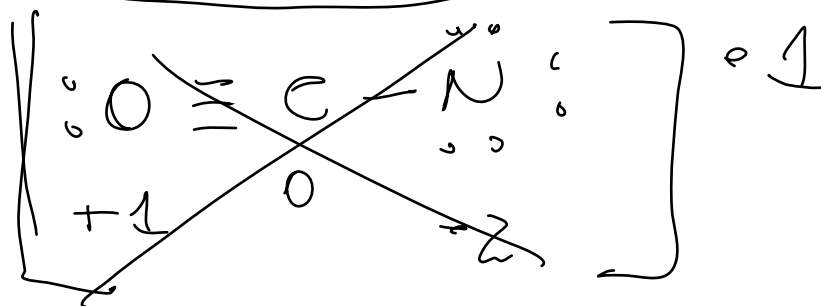
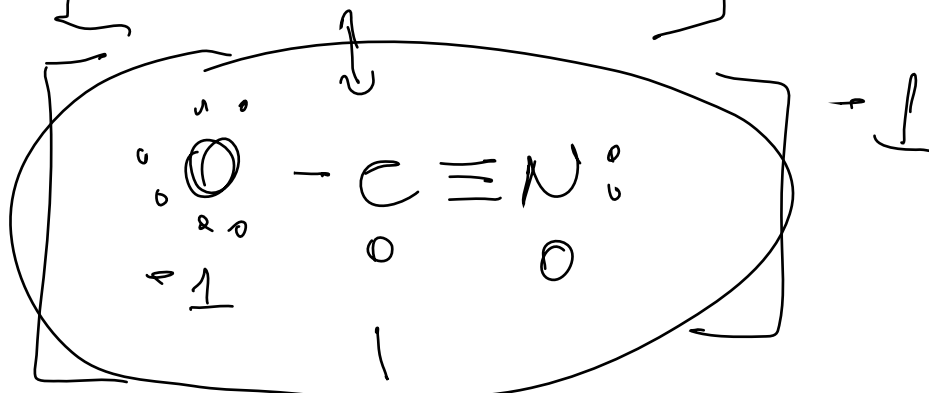
CIAATO $0 \in N$

$$\begin{matrix} & 0 & \\ & \vdots & \\ 0 & & \end{matrix} \quad \begin{matrix} & 0 & \\ & \vdots & \\ C & & \end{matrix} \quad \begin{matrix} & 0 & \\ & \vdots & \\ N & & \end{matrix} \quad 5+4+6+1=16$$

(8)



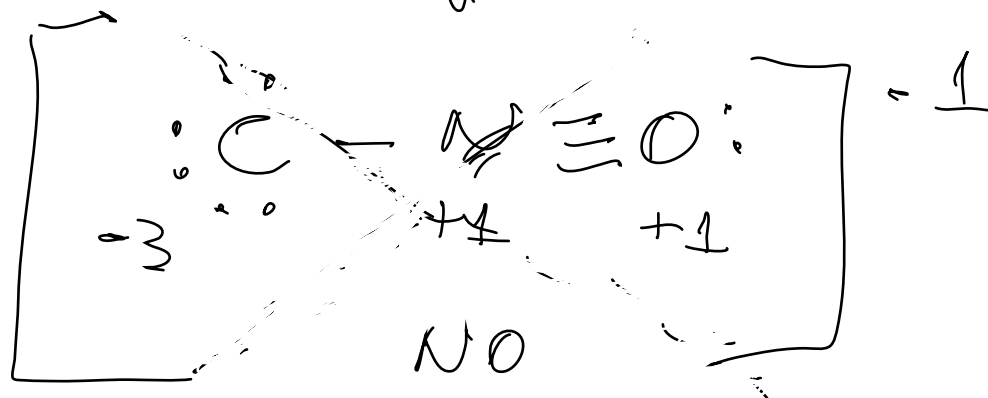
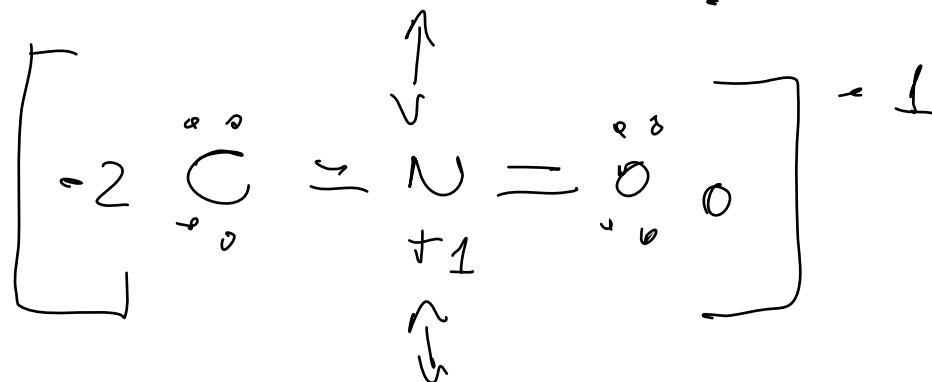
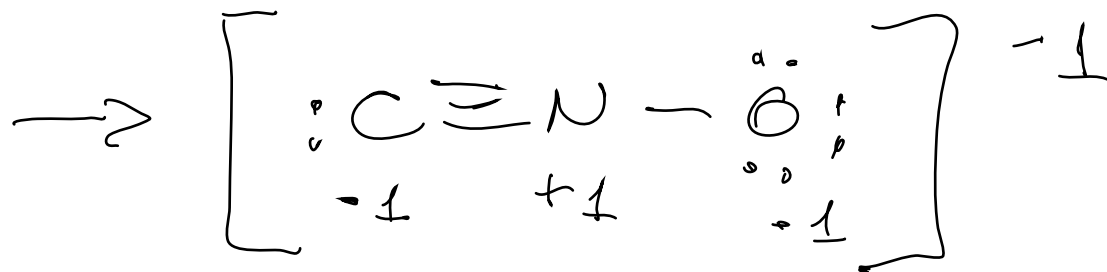
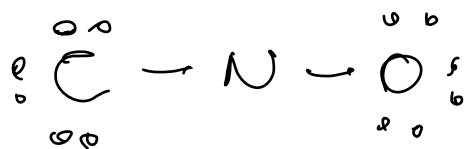
$$\left[\begin{matrix} 0 & 0 & = & C & = & N \\ & \vdots & & & & \vdots \\ & 0 & & & & 1 \end{matrix} \right] \rightarrow 1$$



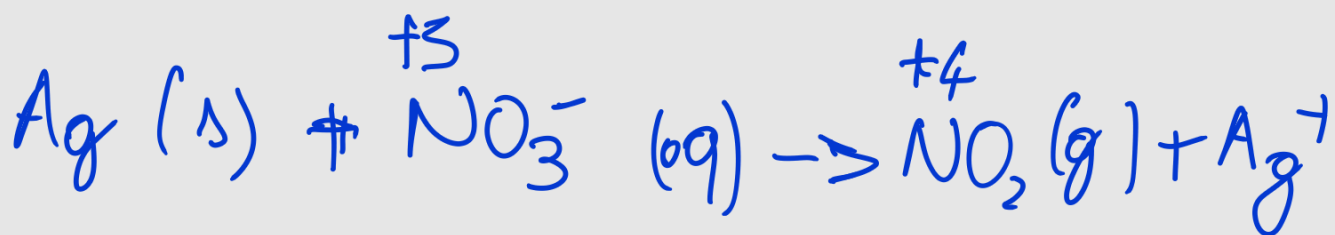
FULMINATO



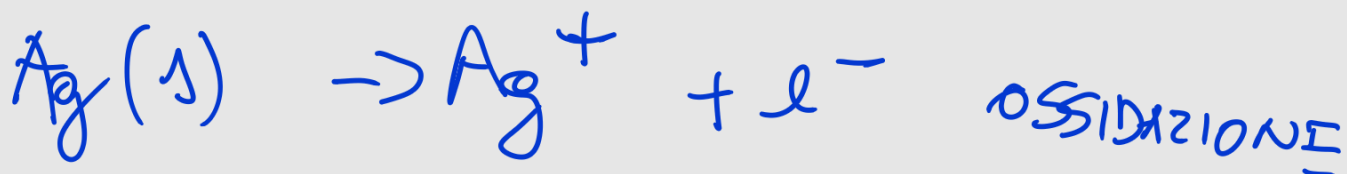
$$4 + 5 + 6 + 1 = 16 \quad (8)$$



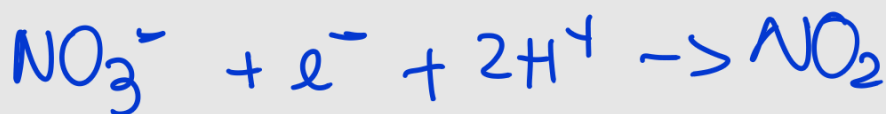
STABILITÀ
DESCRESCE



DIVIDO DUE SEMIREAZIONI



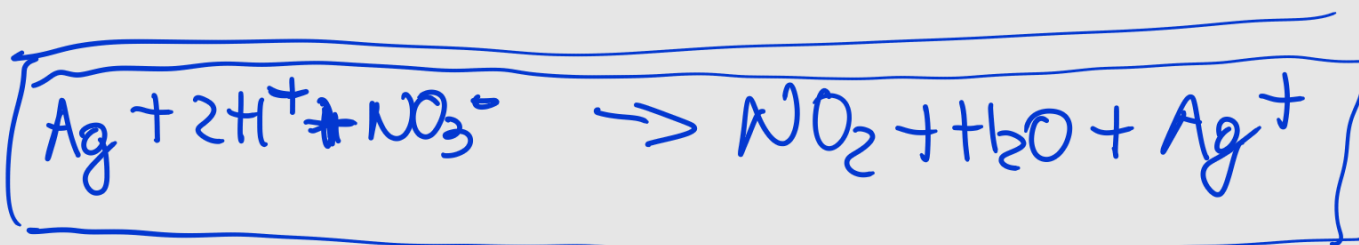
↓ CARICA



↓ MASSA

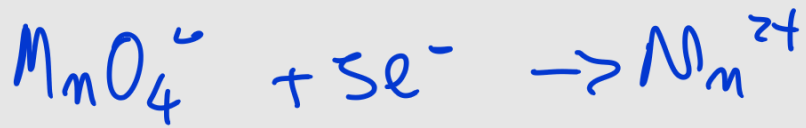


SOMMA

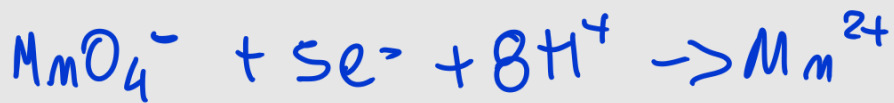




DIVIDERE LE DUE SEMIREAZIONI



↓ CARICA



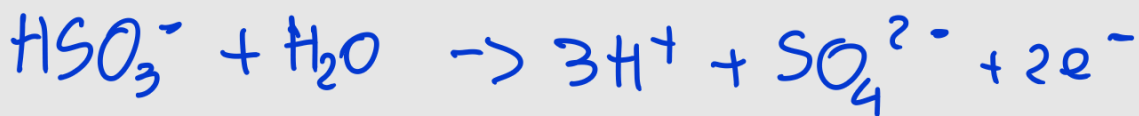
↓ MASSA



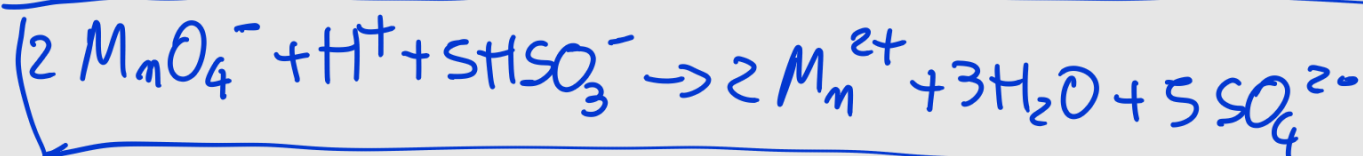
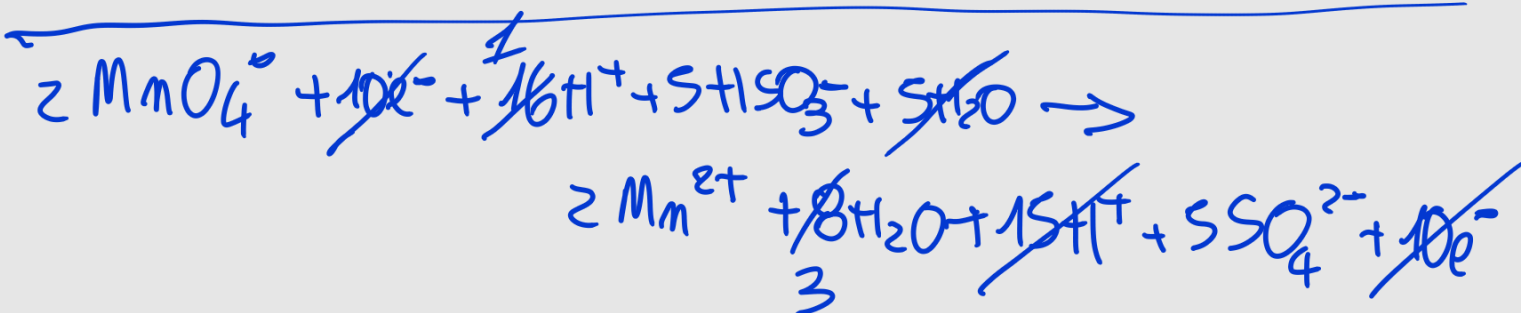
↓ CARICA



↓ MASSA



ADESSO SOMMO MA DEVO AVERE
STESSO NUMERO di elettroni



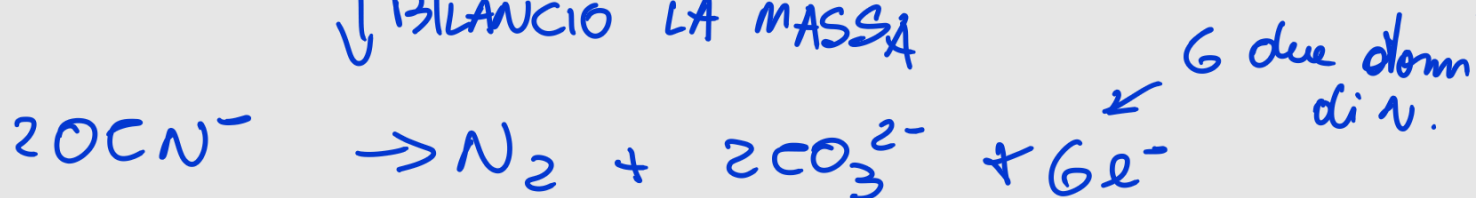
BILANCIARE IN AMBIENTE BASICO



DIVIDO SEMIREAZIONI



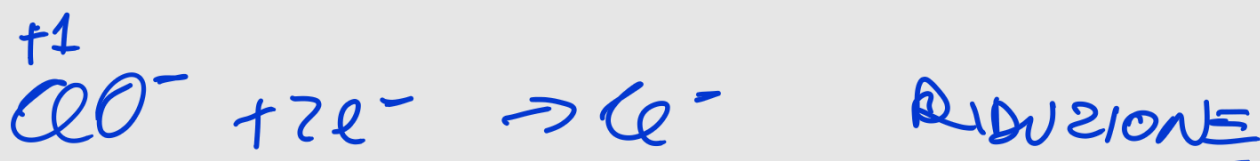
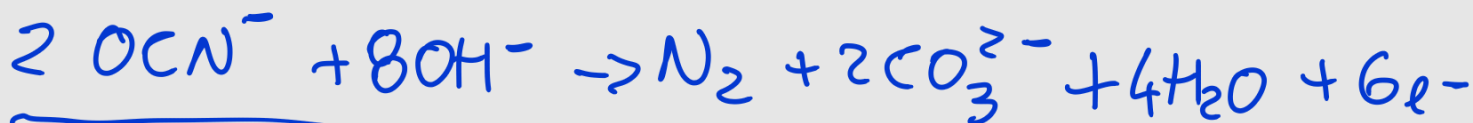
↓ BILANCIO LA MASSA



↓ BILANCIO CARICA CON OH⁻



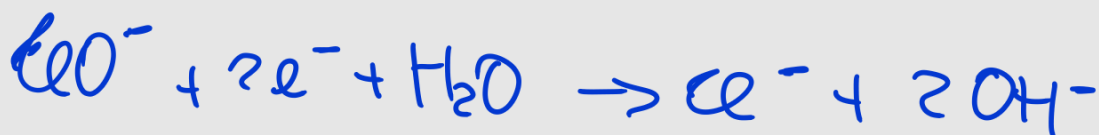
↓ MASSA CON H_2O



↓ CARICA CON OH^-



↓ MASSA CON H_2O



SOMMO LE DUE SEMIREAZIONI

