

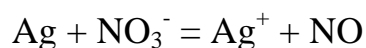
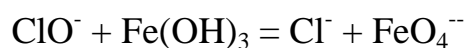
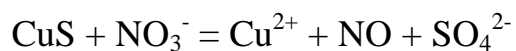
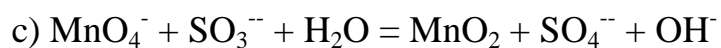
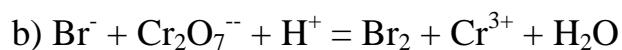
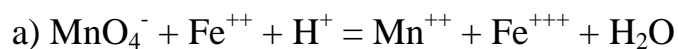
- alluminio + zolfo → solfuro di alluminio
- fosforo + cloro → tricloruro di fosforo
- Sodio + ossido di alluminio → alluminio + ossido di sodio
- Biossido di Manganese + Alluminio → Ossido di Alluminio + Manganese
- Ossido di Ferro(III) + Alluminio → Ossido di Alluminio + Ferro
- Acido Nitrico + Acido Solfidrico → Ossido di Azoto + Zolfo + Acqua
- biossido di manganese(IV) + acido cloridrico → cloro + cloruro di manganese(II)
+ acqua
- Acido Nitrico + Rame → Nitrato di Rame(II) + Ossido di Azoto + Acqua
- solfuro di piombo(II) + acido nitrico → nitrato di piombo(II) + zolfo + ossido di
azoto(II) + acqua
- Permanganato di K + Acido Cloridrico → Cloruro di K + Cloruro di Mn + Cloro
+ Acqua
- Permanganato di potassio + ioduro di potassio + acido solforico → solfato di
potassio + solfato di manganese(II) + iodio + acqua
- $\text{IO}_3^- + \text{I}^- + \text{H}^+ \rightarrow \text{I}_2 + \text{H}_2\text{O}$
- acqua + elettroni → idrogeno + ione idrossido
- $\text{Cl}_2 + \text{NaOH} \rightarrow \text{NaClO}_3 + \text{NaCl} + \text{H}_2\text{O}$

- $\text{Cr}^{3+} + \text{ClO}_3^- + \text{H}_2\text{O} = \text{Cr}_2\text{O}_7^{2-} + \text{ClO}_2^- + \text{H}^+$ (26-03-1998)
- $\text{Mn}^{2+} + \text{BiO}_3^- + \text{H}^+ = \text{MnO}_4^- + \text{Bi}^{3+} + \text{H}_2\text{O}$ (26-03-1998)
- $\text{Sn}^{2+} + \text{MnO}_4^- + \text{H}^+ = \text{Sn}^{4+} + \text{Mn}^{2+} + \text{H}_2\text{O}$ (02-09-1998); (13-04-2000); (26-04-2001)
- $\text{Ag}_2\text{S} + \text{NO}_3^- + \text{H}^+ = \text{Ag}^+ + \text{S} + \text{NO} + \text{H}_2\text{O}$ (17-12-2001)
- $\text{Fe}^{2+} + \text{Cr}_2\text{O}_7^{2-} + \text{H}^+ = \text{Fe}^{3+} + \text{Cr}^{3+} + \text{H}_2\text{O}$ (03-02-1998); (22-05-1998)
- $\text{H}_2\text{O}_2 + \text{MnO}_4^- + \text{H}^+ = \text{O}_2 + \text{Mn}^{2+} + \text{H}_2\text{O}$ (08-10-2001)
- $\text{HNO}_3 + \text{SnCl}_2 + \text{HCl} = \text{SnCl}_4 + \text{N}_2\text{O} + \text{H}_2\text{O}$
- $\text{Cl}_2 + \text{H}_2\text{O} = \text{HCl} + \text{HClO}$ (26-03-1998)
- $\text{P}_4 + \text{KOH} + \text{H}_2\text{O} = \text{PH}_3 + \text{KH}_2\text{PO}_2$
- $\text{As}_2\text{S}_3 + \text{HNO}_3 + \text{H}_2\text{O} = \text{H}_3\text{AsO}_4 + \text{S} + \text{NO}$
- $\text{Cr}(\text{OH})_3 + \text{NaClO} + \text{NaOH} \rightarrow \text{Na}_2\text{CrO}_4 + \text{NaCl} + \text{H}_2\text{O}$
- $\text{Cr}_2\text{O}_3 + \text{KClO} + \text{KOH} \rightarrow \text{K}_2\text{CrO}_4 + \text{KCl} + \text{H}_2\text{O}$
- $\text{KBr} + \text{K}_2\text{Cr}_2\text{O}_7 + \text{H}_2\text{SO}_4 \rightarrow \text{Br}_2 + \text{Cr}_2(\text{SO}_4)_3 + \text{K}_2\text{SO}_4 + \text{H}_2\text{O}$
- $\text{Bi}(\text{OH})_3 + \text{Na}_2\text{SnO}_2 \rightarrow \text{Bi} + \text{Na}_2\text{SnO}_3 + \text{H}_2\text{O}$
- $\text{Hg} + \text{HNO}_3 + \text{HCl} \rightarrow \text{HgCl}_2 + \text{NO} + \text{H}_2\text{O}$
- $\text{As} + \text{NaClO} + \text{NaOH} \rightarrow \text{Na}_3\text{AsO}_4 + \text{NaCl} + \text{H}_2\text{O}$
- $\text{S} + \text{HNO}_3 \rightarrow \text{H}_2\text{SO}_4 + \text{NO}_2 + \text{H}_2\text{O}$

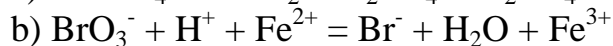
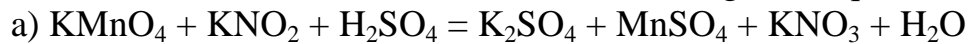
- $SO_2 + HIO_3 + H_2O \rightarrow H_2SO_4 + I_2$
- $K_2Cr_2O_7 + SnSO_4 + H_2SO_4 \rightarrow K_2SO_4 + Cr_2(SO_4)_3 + Sn(SO_4)_2 + H_2O$
- $KMnO_4 + H_2O_2 + H_2SO_4 = MnSO_4 + K_2SO_4 + O_2 + H_2O$
- $HNO_3 + S = NO + SO_2 + H_2O$
- $NiS + HCl + HNO_3 \rightarrow NO + S + NiCl_2 + H_2O$



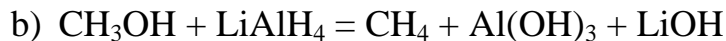
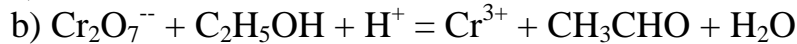
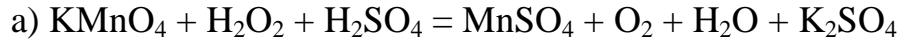
b) disproportionamento dell' H_2O_2



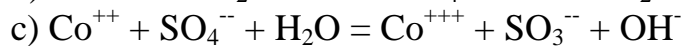
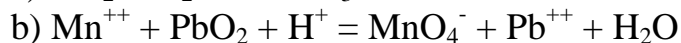
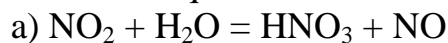
197) Determinare i coefficienti stechiometrici delle seguenti equazioni:



209) Bilanciare le seguenti reazioni di ossido riduzione:



210) Scrivere le equazioni bilanciate per ciascuna delle seguenti reazioni:



207) Determinare i coefficienti stechiometrici delle seguenti reazioni:

