

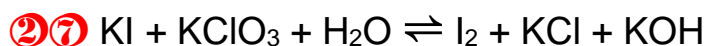
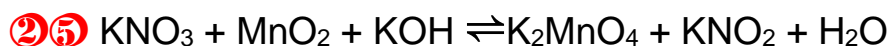
### REACCIONES EN MEDIO ÁCIDO

- ①  $\text{HNO}_3 + \text{Zn} \rightleftharpoons \text{Zn}(\text{NO}_3)_2 + \text{NH}_4\text{NO}_3 + \text{H}_2\text{O}$
- ②  $\text{K}_2\text{Cr}_2\text{O}_7 + \text{FeCl}_2 + \text{HCl} \rightleftharpoons \text{CrCl}_3 + \text{FeCl}_3 + \text{KCl} + \text{H}_2\text{O}$
- ③  $\text{KMnO}_4 + \text{K}_2\text{SO}_3 + \text{HCl} \rightleftharpoons \text{MnO}_2 + \text{K}_2\text{SO}_4 + \text{KCl} + \text{H}_2\text{O}$
- ④  $\text{SO}_2 + \text{KMnO}_4 + \text{H}_2\text{O} \rightleftharpoons \text{MnSO}_4 + \text{H}_2\text{SO}_4 + \text{KSO}_4$
- ⑤  $\text{NaIO}_3 + \text{Na}_2\text{SO}_3 + \text{NaHSO}_3 \rightleftharpoons \text{I}_2 + \text{Na}_2\text{SO}_4 + \text{H}_2\text{O}$
- ⑥  $\text{Cu} + \text{HNO}_3 \rightleftharpoons \text{Cu}(\text{NO}_3)_2 + \text{NO} + \text{H}_2\text{O}$
- ⑦  $\text{K}_2\text{Cr}_2\text{O}_7 + \text{NaI} + \text{H}_2\text{SO}_4 \rightleftharpoons \text{Cr}_2(\text{SO}_4)_3 + \text{K}_2\text{SO}_4 + \text{Na}_2\text{SO}_4 + \text{I}_2 + \text{H}_2\text{O}$
- ⑧  $\text{KMnO}_4 + \text{Na}_2\text{C}_2\text{O}_4 + \text{H}_2\text{SO}_4 \rightleftharpoons \text{K}_2\text{SO}_4 + \text{MnSO}_4 + \text{Na}_2\text{SO}_4 + \text{H}_2\text{O} + \text{CO}_2$
- ⑨  $\text{As}_4\text{O}_6 + \text{Cl}_2 + \text{H}_2\text{O} \rightleftharpoons \text{H}_3\text{AsO}_4 + \text{HCl}$
- ⑩  $\text{KMnO}_4 + \text{KCl} + \text{H}_2\text{SO}_4 \rightleftharpoons \text{MnSO}_4 + \text{Cl}_2 + \text{KHSO}_4 + \text{H}_2\text{O}$
- ⑪  $\text{K}_2\text{Cr}_2\text{O}_7 + \text{HI} + \text{H}_2\text{SO}_4 \rightleftharpoons \text{K}_2\text{SO}_4 + \text{Cr}_2(\text{SO}_4)_3 + \text{I}_2 + \text{H}_2\text{O}$
- ⑫  $\text{KMnO}_4 + \text{Na}_2\text{SO}_3 + \text{H}_2\text{SO}_4 \rightleftharpoons \text{MnSO}_4 + \text{Na}_2\text{SO}_4 + \text{K}_2\text{SO}_4 + \text{H}_2\text{O}$
- ⑬  $\text{KMnO}_4 + \text{KI} + \text{HCl} \rightleftharpoons \text{MnCl}_2 + \text{I}_2 + \text{KCl} + \text{H}_2\text{O}$
- ⑭  $\text{K}_2\text{Cr}_2\text{O}_7 + \text{HI} + \text{HClO}_4 \rightleftharpoons \text{Cr}(\text{ClO}_4)_3 + \text{I}_2 + \text{KClO}_4 + \text{H}_2\text{O}$
- ⑮  $\text{K}_2\text{Cr}_2\text{O}_7 + \text{H}_2\text{SO}_4 + \text{FeSO}_4 \rightleftharpoons \text{Cr}_2(\text{SO}_4)_3 + \text{Fe}_2(\text{SO}_4)_3 + \text{H}_2\text{O} + \text{K}_2\text{SO}_4$
- ⑯  $\text{K}_2\text{Cr}_2\text{O}_7 + \text{H}_2\text{SO}_3 \rightleftharpoons \text{Cr}_2(\text{SO}_4)_3 + \text{H}_2\text{O} + \text{K}_2\text{SO}_3$
- ⑰  $\text{K}_2\text{Cr}_2\text{O}_7 + \text{IK} + \text{H}_2\text{SO}_4 \rightleftharpoons \text{K}_2\text{SO}_4 + \text{I}_2 + \text{Cr}_2(\text{SO}_4)_3 + \text{H}_2\text{O}$

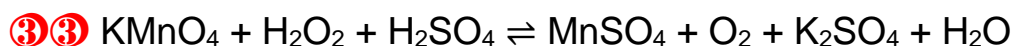
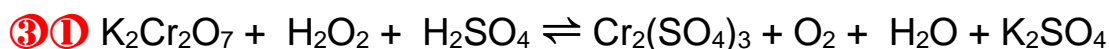
### REACCIONES EN MEDIO BÁSICO

- ⑱  $\text{KCrO}_2 + \text{KClO} + \text{KOH} \rightleftharpoons \text{K}_2\text{CrO}_4 + \text{KCl} + \text{H}_2\text{O}$
- ⑲  $\text{I}_2 + \text{Na}_2\text{SO}_3 + \text{NaOH} \rightleftharpoons \text{NaI} + \text{H}_2\text{O} + \text{Na}_2\text{SO}_4$
- ⑳  $\text{Cr}_2(\text{SO}_4)_3 + \text{KClO}_3 + \text{KOH} \rightleftharpoons \text{K}_2\text{CrO}_4 + \text{KCl} + \text{K}_2\text{SO}_4 + \text{H}_2\text{O}$
- ㉑  $\text{NaClO} + \text{As} + \text{NaOH} \rightleftharpoons \text{Na}_3\text{AsO}_4 + \text{NaCl} + \text{H}_2\text{O}$
- ㉒  $\text{NaNO}_2 + \text{NaMnO}_4 + \text{H}_2\text{O} \rightleftharpoons \text{MnO}_2 + \text{NaNO}_3 + \text{NaOH}$
- ㉓  $\text{KClO}_3 + \text{KOH} + \text{CoCl}_2 \rightleftharpoons \text{KCl} + \text{Co}_2\text{O}_3 + \text{H}_2\text{O}$
- ㉔  $\text{KNO}_3 + \text{MnO} + \text{KOH} \rightleftharpoons \text{K}_2\text{MnO}_4 + \text{KNO}_2 + \text{H}_2\text{O}$

## Ajuste de reacciones redox



### REACCIONES EN QUE INTERVIENE EL $\text{H}_2\text{O}_2$



### DISMUTACIÓN

