

OCR (B) Chemistry GCSE

PAG 1 - Reactivity Trends

(Chemistry only)

Flashcards

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What is the trend in reactivity of the
Group 7 elements?



What is the trend in reactivity of the Group 7 elements?

Reactivity decreases down the group



What is a displacement reaction?



What is a displacement reaction?

A reaction in which a more reactive element replaces a less reactive element in a compound



Will bromine react with potassium chloride? Why / why not?



Will bromine react with potassium chloride? Why/why not?

No because the reactivity of halogens decreases down the group.

Bromine is less reactive than chloride so can't displace chloride from KCl.



Will chlorine react with potassium iodide? Why / why not?



Will chlorine react with potassium iodide? Why/ why not?

Yes because reactivity of halogens decreases down the group.

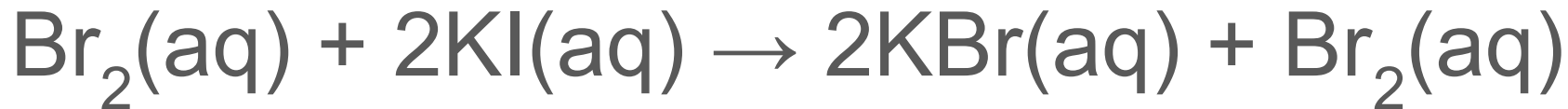
Chlorine can displace iodine from KI as chlorine is more reactive than iodide.



Write an equation for the reaction of
bromine with potassium iodide



Write an equation for the reaction of chlorine with potassium iodide



What safety precautions should be taken when using group 7 elements in experiments?



What safety precautions should be taken when using group 7 elements in experiments?

- Use in a well ventilated lab
- Avoid inhaling (Cl_2 and Br_2)
- Wear gloves



What is the trend in reactivity of group 1 and 2 metals?



What is the trend in reactivity of group 1 and 2 metals?

Reactivity increases down the groups.

Group 1 is more reactive than group 2.



No change is observed when Cu(s) is added to $\text{MgSO}_4(\text{aq})$. What does this suggest about reactivity?



No change is observed when Cu(s) is added to $\text{MgSO}_4(\text{aq})$. What does this suggest about reactivity?

Cu is less reactive than Mg.

Cu doesn't displace Mg^{2+} ions.



When Pb(s) is added to $\text{CuSO}_4(\text{aq})$, the lead pieces get darker. What does this suggest about reactivity?



When Pb(s) is added to $\text{CuSO}_4(\text{aq})$, the lead pieces get darker. What does this suggest about reactivity?

Pb is more reactive than Cu.

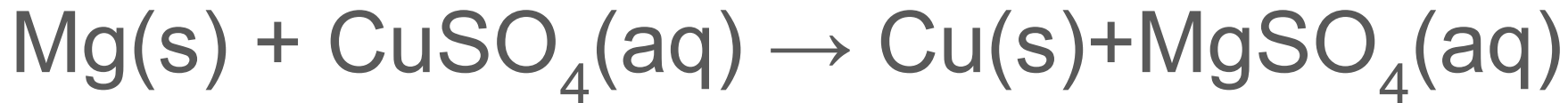
Pb displaces Cu^{2+} ions.



Write an equation for the reaction
between Mg(s) and $\text{CuSO}_4(\text{aq})$



Write an equation for the reaction between Mg(s) and CuSO₄(aq)



What does a faster rate suggest about reactivity?



What does a faster rate suggest about reactivity?

A faster rate means the compounds are more reactive



What two products are formed when a metal reacts with water?



What two products are formed when a metal reacts with water?

Metal + Water \rightarrow Metal Hydroxide + Hydrogen

If a metal is very unreactive, it will not react with water e.g. zinc and iron.



What two products are formed when a metal reacts with acid?



What two products are formed when a metal reacts with acid?

Metal + Acid → Salt + Hydrogen

Less reactive metals will not react with acid,
e.g. copper won't react with dilute acids

