

Chemical Reactions Lab

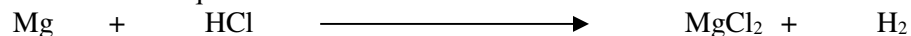
Part A: In the space provided, describe the products formed when the following compounds are combined. Is there a precipitate? If so, what colour is it? Does anything else happen? (e.g. bubbles ..) If there does not appear to be any reaction, write "no reaction".

	KOH	Pb(NO ₃) ₂	KI	K ₂ CrO ₄	BaCl ₂	Na ₃ PO ₄	Na ₂ CO ₃
CuSO ₄							
KOH	/						
Pb(NO ₃) ₂	/	/					
KI	/	/	/				
K ₂ CrO ₄	/	/	/	/			
BaCl ₂	/	/	/	/	/		
Na ₃ PO ₄	/	/	/	/	/	/	

Part B: Add a 1 cm piece of magnesium ribbon to a few drops of hydrochloric acid (HCl).

a) Describe what happens. What new material can you see being produced?

b) Balance the chemical equation:



Part C: Place 5 drops of sodium hydroxide (NaOH) to a small test tube. Add one or two drops of phenolphthalein indicator. Counting the drops, add hydrochloric acid (HCl), one drop at a time until the instant that the colour disappears.

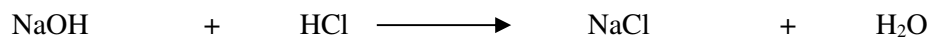
a) What happened when you added the phenolphthalein?

b) How many drops of HCl did you add?

c) How does the amount of NaOH compare with the amount of HCl?

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d) Balance the equation for the reaction (the HCl neutralized the NaOH and produced salt and water).



Reactions from Part A: Write the chemical formulas of the PRODUCTS for the reactions below (don't forget to check the combining capacities of the elements and groups to give the correct formula of the compound). In this section you do **not** have to show balanced equations.

Reactants	Products	Reactants	Products
e.g. $\text{CuSO}_4 + \text{KOH}$	<u> </u> $\text{Cu}(\text{OH})_2$ + <u> </u> K_2SO_4	$\text{CuSO}_4 + \text{Pb}(\text{NO}_3)_2$	<u> </u> + <u> </u>
e.g. $\text{CuSO}_4 + \text{KI}$	<u> </u> CuI_2 + <u> </u> K_2SO_4	$\text{CuSO}_4 + \text{K}_2\text{CrO}_4$	<u> </u> + <u> </u>
$\text{CuSO}_4 + \text{BaCl}_2$	<u> </u> + <u> </u>	$\text{CuSO}_4 + \text{Na}_3\text{PO}_4$	<u> </u> + <u> </u>
$\text{CuSO}_4 + \text{Na}_2\text{CO}_3$	<u> </u> + <u> </u>	$\text{KOH} + \text{Pb}(\text{NO}_3)_2$	<u> </u> + <u> </u>
$\text{KOH} + \text{KI}$	<u> </u> + <u> </u>	$\text{KOH} + \text{K}_2\text{CrO}_4$	<u> </u> + <u> </u>
$\text{KOH} + \text{BaCl}_2$	<u> </u> + <u> </u>	$\text{KOH} + \text{Na}_3\text{PO}_4$	<u> </u> + <u> </u>
$\text{KOH} + \text{Na}_2\text{CO}_3$	<u> </u> + <u> </u>	$\text{Pb}(\text{NO}_3)_2 + \text{KI}$	<u> </u> + <u> </u>
$\text{Pb}(\text{NO}_3)_2 + \text{K}_2\text{CrO}_4$	<u> </u> + <u> </u>	$\text{Pb}(\text{NO}_3)_2 + \text{BaCl}_2$	<u> </u> + <u> </u>
$\text{Pb}(\text{NO}_3)_2 + \text{Na}_3\text{PO}_4$	<u> </u> + <u> </u>	$\text{Pb}(\text{NO}_3)_2 + \text{Na}_2\text{CO}_3$	<u> </u> + <u> </u>
$\text{KI} + \text{K}_2\text{CrO}_4$	<u> </u> + <u> </u>	$\text{KI} + \text{BaCl}_2$	<u> </u> + <u> </u>
$\text{KI} + \text{Na}_3\text{PO}_4$	<u> </u> + <u> </u>	$\text{KI} + \text{Na}_2\text{CO}_3$	<u> </u> + <u> </u>
$\text{K}_2\text{CrO}_4 + \text{BaCl}_2$	<u> </u> + <u> </u>	$\text{K}_2\text{CrO}_4 + \text{Na}_3\text{PO}_4$	<u> </u> + <u> </u>
$\text{K}_2\text{CrO}_4 + \text{Na}_2\text{CO}_3$	<u> </u> + <u> </u>	$\text{BaCl}_2 + \text{Na}_3\text{PO}_4$	<u> </u> + <u> </u>
$\text{BaCl}_2 + \text{Na}_2\text{CO}_3$	<u> </u> + <u> </u>	$\text{Na}_3\text{PO}_4 + \text{Na}_2\text{CO}_3$	<u> </u> + <u> </u>