

Name:

Class:



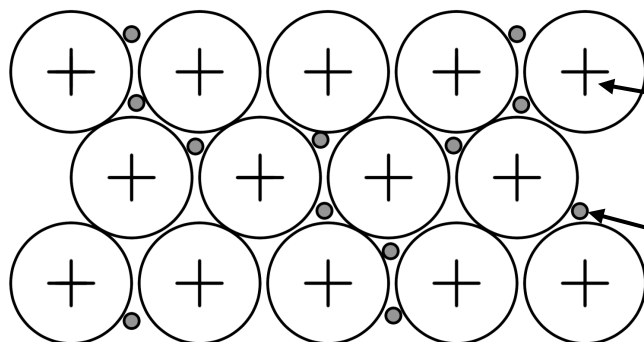
State the colour produced by sodium compounds in a flame test.

Yellow

The formula of a salt is $\text{Ca}(\text{NO}_3)_2$. Name this salt.

Calcium nitrate

The diagram below shows the structure of a metal.



i. Identify the structures labelled below.

Positive ion/ Cation**Delocalised electron(s).**

ii. Explain how metals conduct electricity.

Metals have delocalised electrons which can move and carry charge.**Answer must mention delocalised electrons.**

Calculate the relative formula mass of silver chloride, AgCl .

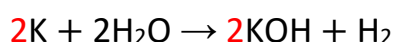
(relative atomic masses: $\text{Cl} = 35.5$, $\text{Ag} = 108$)

$108 + 35.5 = 143.5$

Calculate the percentage by mass of silver, Ag , in silver chloride, AgCl .

$\frac{108}{143.5} \times 100 = 75.3\%$

Balance the equation for the reaction between potassium and water by putting values in the spaces provided.



Describe a test to distinguish between Fe^{2+} and Fe^{3+} ions.

Test: add some sodium hydroxide solution.**Results:** Fe^{2+} will give a green precipitate. Fe^{3+} will give a brown precipitate.

Describe a test to show that a gas is ammonia.

Test: moist/damp red litmus paper.**Positive result:** if the gas is ammonia the damp red litmus paper will turn blue.