

Name:

Class:



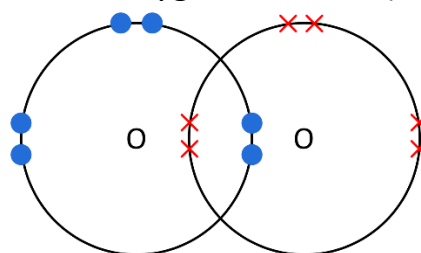
Ionic compounds will only conduct electricity when they are in what states?

Molten and aqueous

What moves to carry charge in ionic compounds?

ions

Complete the diagram to show the outer electrons in an oxygen molecule (O₂).



Calculate the mass of magnesium oxide needed to produce 1.2 tonnes of magnesium.

Relative atomic masses (Ar): O = 16; Mg = 24

Mass = mol x Mr

24 g = 1 mol

Mass = 0.05 x 40

Hint: when doing this calculation pretend the mass is in grams it keeps the numbers small 😊

1 g = $\frac{1}{24}$ mol

Mass = 2 g

1.2 grams = 0.05 mols

Mass = 2 tonnes

A company calculated that they would produce 1.2 tonnes of magnesium, but only 0.9 tonnes was produced. Calculate the percentage yield.

0.9 ÷ 1.2 tonnes = 0.75 × 100 = 75%

Give **one** reason why the calculated yield of magnesium might not be obtained.

Any one from the following:

- The reaction is reversible.
- Some lost /escaped/ released when separated.
- Some of the reactant may react in different ways from the expected reaction.
- The reactant(s) could be impure.

Explain why graphite can conduct electricity.

It has delocalised electrons which can move and carry charge.

State the general formula of an alkene.

C_nH_{2n}

Give the functional group of an alcohol.

OH

Give the formula of ammonium sulfate.

(NH₄)₂SO₄

State the formula of an ammonium ion.

NH₄⁺

State the colour change that is observed when bromine water is shaken with ethene in a test tube.

From **orange** to **colourless**.