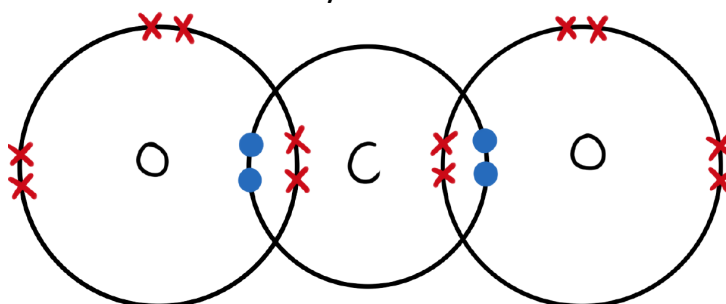


Name:

Class:



Complete the diagram, using dots and crosses, to show the arrangement of the electrons in a molecule of carbon dioxide. Show only the outer shell electrons.



Accept any correct version

State the formula of nitric acid.

What does $\rightleftharpoons$ mean?

Reversible reaction

Calculate the mass of MgS that forms when 0.30 g of magnesium reacts completely with sulfur.



$$\text{Mol of Mg} = \text{Mass} \div \text{Mr}$$

$$\text{Mol of Mg} = 0.30 \div 24$$

$$\text{Mol of Mg} = 0.0125$$

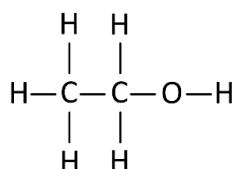
$$\text{Mass of MgS} = \text{mol} \times \text{Mr}$$

$$\text{Mass of MgS} = 0.0125 \times 56$$

$$\text{Mass of MgS} = 0.7\text{g}$$

$$\text{Mass} = 0.7\text{g}$$

Name the following compound.



Ethanol

Explain why carbon dioxide has a low boiling point.

Carbon dioxide molecules are held together by weak intermolecular forces which require little energy to overcome.

The word equation for a reaction is:



Write a balanced chemical equation for the reaction.



What ion makes a solution acidic?



Give the electronic configuration of an aluminium atom.

2, 8, 3

In what states will ionic compounds conduct electricity?

When the ionic compounds are aqueous or molten.

Explain, in terms of bonding, why graphite conducts electricity.

In graphite each carbon is bonded to three other carbons. This leaves a delocalised electron which can move and carry charge.