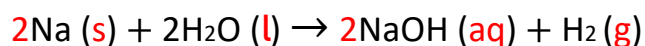


Name:

Class:



Give the missing state symbols and balance the following equation.



Describe a test to show that a gas is chlorine.

Test: moist/damp blue litmus paper.**Positive result:** if the gas is chlorine the damp blue litmus will turn red and is then bleached white.

Describe a test to show that a compound contains sulfate ions.

Test: add some HCl or HNO₃. Then add a few drops of barium chloride solution.**Positive result:** if sulfate ions are present a thick white precipitate will be seen.

Chlorine (Cl) has a relative atomic mass (Ar) of 35.5.

Chlorine has two stable isotopes:

Chlorine-35 (Mass = 35.0)

Chlorine-37 (Mass = 37.0)

Calculate the percentage abundance of these two isotopes in the sample.

Let the % abundance of Cl-35 = y Then the % abundance of Cl-37 = 100 – y

$$35.5 = [(35 \times y) + (37 \times (100 - y))] \div 100$$

$$3550 = 35y + 3700 - 37y$$

$$3550 = 3700 - 2y \quad 2x = 3700 - 3550$$

$$2x = 150 \quad x = 75$$

What is the name of the gas made when magnesium reacts with sulfuric acid?

A Carbon dioxide**B** Carbon monoxide**C** Hydrogen**D** Oxygen

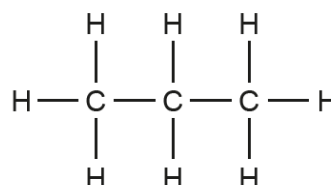
Which statement about covalent bonding is true? Circle the correct answer.

A Electrons are transferred from one atom to another.**B** Electrons are delocalised.**C** Electrons are shared between atoms.**D** Ions are formed.Magnesium nitrate has the formula Mg(NO₃)₂.

Calculate the relative formula mass of magnesium nitrate.

$$24 + 2(14) + 6(16) = 148$$

Identify the compound shown below.

**Propane**