

Name:

Class:



A compound has a composition by mass of C = 22.2%, H = 3.7%, Br = 74.1%.
Show, by calculation, that the empirical formula of the compound is C₂H₄Br.

	C	H	Br
Mass	22.2	3.7	74.1
Ar	12	1	80
Moles	1.85	3.7	0.926
Divide by smallest	1.99	3.99	1
Ratio	2	4	1

Answer = C₂H₄Br

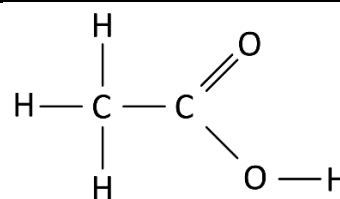
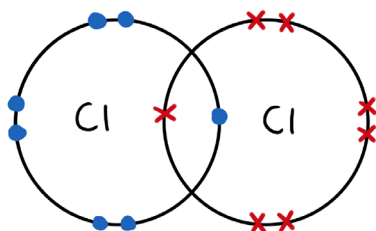
The relative formula mass of the compound is 216.
Deduce the molecular formula of the compound.

$$24 + 4 + 80 = 108$$

$$216 \div 108 = 2$$

$$2(\text{C}_2\text{H}_4\text{Br}) = \text{C}_4\text{H}_8\text{Br}_2$$

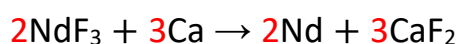
Draw a dot and cross diagram to show the bonding in a chlorine molecule.



Name the compound above.

Ethanoic acid

Balance the equation for the following reaction.



In what states do ionic compounds conduct electricity?

Molten and aqueous

How do ionic compounds conduct electricity?

When molten or aqueous the ions are free to move and carry charge.

How do metallic compounds conduct electricity?

Metals have delocalised electrons which are free to move and carry charge.

A substance may contain sulfate ions.
Describe a test for sulfate ions.

Test: add a few drops of barium chloride solution.

Result: if sulfate ions are present a thick white precipitate will form.

Magnesium displaces zinc from zinc sulfate solution. Complete the ionic equation for the reaction. You must include state symbols.

