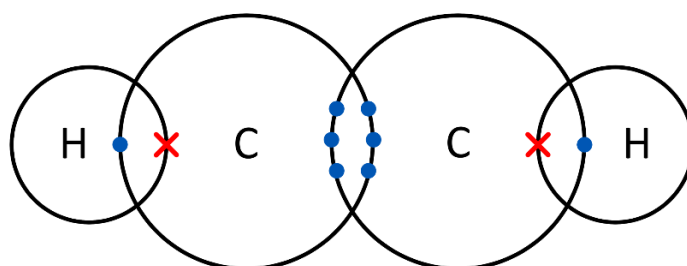


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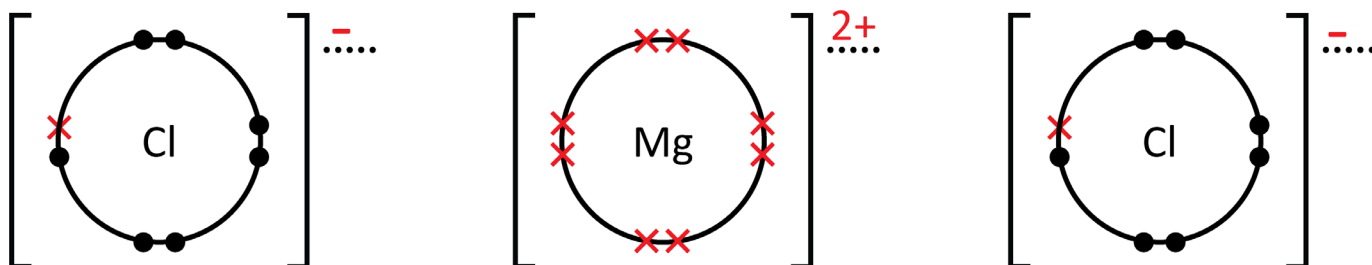
Class:



Complete the dot and cross diagram to show the electron arrangement in a molecule of ethyne, $\text{H}-\text{C}\equiv\text{C}-\text{H}$. Show outer shell electrons only.



Complete the diagrams to show the electronic structures of the **ions** in magnesium chloride. Show the outer shell electrons and the charges on the ions.



Give three physical properties that are typical of ionic compounds such as MgCl_2 .

1. They have high melting points or high boiling points.
2. They will dissolve in water or both are soluble.
3. They conduct (electricity) when molten/conduct in aqueous solution.

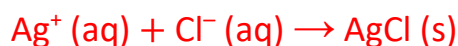
Name the ester with the molecular formula $\text{C}_4\text{H}_8\text{O}_2$.

Ethyl ethanoate

What is meant by the term hydrocarbon?

A substance that contains only carbon and hydrogen atoms.

Aqueous magnesium chloride is added to aqueous silver nitrate. A white precipitate forms. Write an **ionic equation** for this reaction. Include state symbols.



Give the electronic configuration of a phosphorus **ion**.

2, 8, 8

Give the electronic configuration of an atom of Argon.

2, 8, 8

Substances are made of atoms. What is an atom?

An atom is the simplest particle of an element that is neutral.