

Unit 4 Study Guide General

Molecular compounds that dissolve in water do not conduct electricity because no _____ are present.

When an atom loses an electron, it becomes a

- ☐ a neutral atom. ☐ c positive ion.
☐ b neutral ion. ☐ d negative ion.

When an atom gains an electron it becomes a

- ☐ a negative ion
☐ b neutral atom
☐ c neutral ion
☐ d positive ion

Select all of the properties of Ionic Compounds

- | | |
|-------------------------------------------------------------------------|----------------------------------------------------------------------|
| <input type="checkbox"/> a Do not break into ions when dissolved | <input type="checkbox"/> f Are called molecules |
| <input type="checkbox"/> b Lack orderly crystal patterns | <input type="checkbox"/> g Do not conduct electricity when dissolved |
| <input type="checkbox"/> c Low melting points | <input type="checkbox"/> h High melting points |
| <input type="checkbox"/> d Usually liquids or gases at room temperature | <input type="checkbox"/> i Break into ions when dissolved |
| <input type="checkbox"/> e Conduct electricity when dissolved | <input type="checkbox"/> j Usually solids at room temperature |
| | <input type="checkbox"/> k Orderly crystal patterns |

The sum of the charges on an ionic compound is always _____.

An ionic compound is the result of a _____ bonding with a _____.

- ☐ a metal, metal ☐ c noble gas, metal
☐ b non-metal, non-metal ☐ d metal, non-metal

The ions in an ionic compound form regular patterns because

- ☐ a every ion is attracted to ions near it with an opposite charge.
☐ b every ion shares an electron with the ion next to it.
☐ c ions are always found in a 1:1 ratio.
☐ d each ion has a square shape.

What is an ion?

- ☐ a an atom that doesn't have protons
☐ b an atom or group of atoms that has become electrically charged
☐ c the opposite of an electron
☐ d an atom that doesn't have neutrons