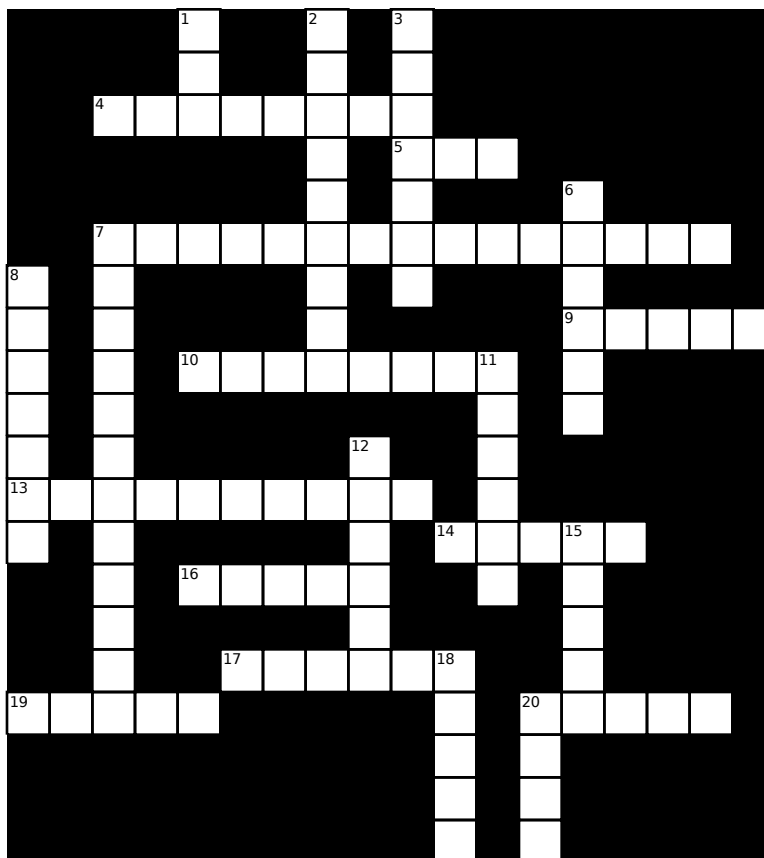


Chemistry

Chapter 15 Ionic Bonding & Ionic Compounds



- Across
- 4 ___ bonds consist of the attraction of the free-floating valence electrons for the positively charged metal ions.
 - 5 The alkaline earth metals contain ___ valence electrons.
 - 7 The internal structures of crystals are determined by a technique called x-ray diffraction ___.
 - 9 The forces of attraction that bind oppositely charged ions.
 - 10 Alloys are important because their properties are often ___ to those of their component elements.
 - 13 Metals are good ___ of electrical current because electrons can glow freely in them.
 - 14 ___ are mixtures composed of two more more elements, at least one of which is a metal.
 - 16 A chloride ion has the same electron configuration as this noble gas.
 - 17 The most important alloys today are ___.
 - 19 When melted, ___ compounds can conduct an electric current.
 - 20 Iron, Chromium, Carbon, and Nickel make this alloy.

- Down
- 1 As a general rule only the valence electrons are shown in electron ___ structures.
 - 2 Metals are ___, because they can be hammered into sheets.
 - 3 Metals are ___, because they can be drawn into a wire.
 - 6 The ions that are produced when atoms of chlorine and other halogens gain electrons are called ___ ions.
 - 7 The ___ number of an ion is the number of ions of opposite charge that surround the ion in a crystal.
 - 8 ___ electrons are the electrons in the highest occupied energy level of an element's atoms.
 - 11 The crystalline form of titanium dioxide is called ___.
 - 12 Copper and tin make this alloy.
 - 15 In forming compounds, atoms tend to achieve the electron configuration of a noble gas.
 - 18 All halogen ions have ___ valence electrons and need to gain only one electron to achieve the electron configuration of a noble gas.
 - 20 NaCl