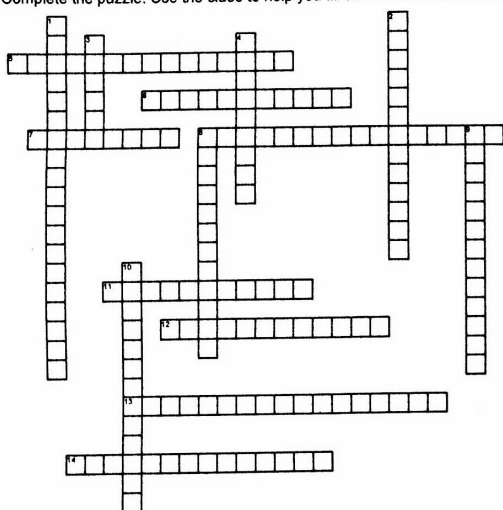


Bonding XWord A (AMSAT), Modern_Chemistry

Name _____ Date _____

Instructions: Complete the puzzle. Use the clues to help you fill the boxes with the correct words.



ACROSS

5. a combination of chemical symbols and numbers to represent a substance
6. a theory that predicts some molecular shapes based on the idea that pairs of valence electrons surrounding an atom repel each other
7. the smallest unit of a substance that keeps all of the physical and chemical properties of that substance; it can consist of one atom or two or more atoms bonded together
8. a chemical formula that shows the number and kinds of atoms in a molecule, but not the arrangement of the atoms
11. the collection of atoms corresponding to an ionic compound's formula such that the molar mass of the compound is the same as the mass of 1 mol of formula units
12. a bond formed by the attraction between positively charged metal ions and the electrons around them
13. a chemical compound whose simplest units are molecules

14. a structural formula in which electrons are represented by dots; dot pairs or dashes between two atomic symbols represent pairs in covalent bonds

DOWN

1. an electron-configuration notation in which only the valence electrons of an atom of a particular element are shown as dots placed around the element's symbol
2. a compound composed of ions bound together by electrostatic attraction
3. a molecule or a part of a molecule that contains both positively and negatively charged regions
4. the ability of a substance to be hammered thin or drawn out into a wire
5. the ability of a substance to be hammered or beaten into a sheet
9. the energy associated with constructing a crystal lattice relative to the energy of all constituent atoms separated by infinite distances
10. an ion made of two or more atoms

XWord A Word Bank

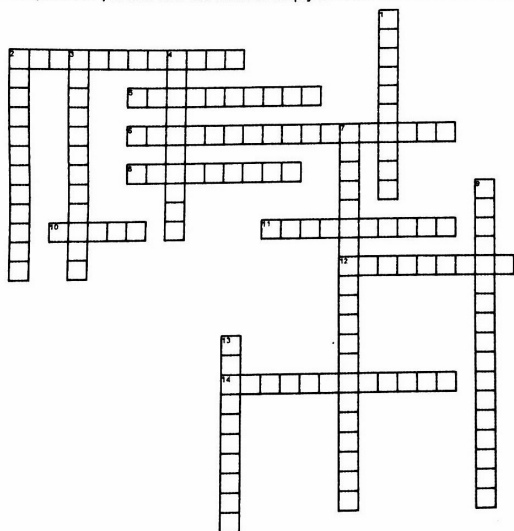
molecule
electron dot notation
ductility
ionic compound
chemical formula
lattice energy
Lewis structure
molecular compound

VSEPR theory
metallic bond
dipole
malleability
polyatomic ion
formula unit
molecular formula

Bonding XWord B (AMSAT), Modern_Chemistry

Name _____ Date _____

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ACROSS

2. the attractive force that holds atoms or ions together
5. the energy required to break the bonds in 1 mol of a chemical compound
6. a covalent bond in which a pair of electrons shared by two atoms is held more closely by one atom
8. a force that attracts electrons from one atom to another, which transforms a neutral atom into an ion
10. describes a molecule in which the positive and negative charges are separated
11. a covalent bond where six electrons are shared between two atoms
12. the bonding in molecules or ions that cannot be correctly represented by a single Lewis structure
14. a set of electrons around the center atom not involved in bonding

DOWN

1. a covalent bond in which two atoms share one pair of electrons
2. a bond formed when atoms share one or more pairs of electrons
3. a bond in which the atoms share more than one pair of electrons, such as a double bond or a triple bond
4. the distance between two bonded atoms
7. a covalent bond in which the bonding electrons are equally attracted to both bonded atoms
9. a formula that indicates the location of the atoms, groups, or ions relative to one another in a molecule and that indicates the number and location of chemical bonds
13. a covalent bond where four electrons are shared between two atoms

XWord B Word Bank

chemical bond
 nonpolar covalent bond
 structural formula
 covalent bond
 polar
 single bond
 bond length
 multiple bond

polar covalent bond
 triple bond
 resonance
 double bond
 unshared pair
 bond energy
 ionic bond