

TOPIC III - Atomic Structure

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- The nucleus of an atom is made up of _____.
A electrons and neutrons
B protons, neutrons, and electrons
C protons and electrons
D protons and neutrons
- All elements are mixtures of _____.
A solids
B isotopes
C molecules
D valence electrons
- The chemical behavior of different elements is determined by the number of electrons in the _____.
A innermost energy level
B second energy level
C third energy level
D outermost energy level
- Solutions characterized by the formation of hydroxide ions (OH^-) are _____.
A bases
B solids
C elements
D acids
- A combination of two or more components that retain their identity is a(n) _____.
A mixture
B compound
C acid
D base
- Densely packed, ever-changing arrangements of atoms and molecules are _____.
A solids
B liquids
C gases
D plasma
- Which of the following changes of state releases thermal energy?
A melting
B sublimation
C condensation
D evaporation
- What type of bonding takes place when Na^+ and Cl^- combine to form NaCl ?
A ionic
B hydrogen
C covalent
D metallic
- Granite is an example of a _____.
A homogeneous mixture
B solid solution
C solution
D heterogeneous mixture
- Glass is an example of _____.
A a solid
B a liquid
C a gas
D both a and b
- A molecule of chlorine gas is made up of pairs of chlorine atoms in which each atom shares one of its seven electrons to form a(n) _____.
A covalent bond
B ionic bond
C metallic bond
D solution
- In how many physical states is matter found on Earth?
A two
B three
C four
D five
- An atom in which the outermost energy level is more than half full tends to form which of the following ions?
A positive ions
B negative ions
C both positive and negative ions
D neither positive nor negative ions
- Tomatoes have a pH of 4. They are considered to be _____.
A acidic
B basic
C neutral
D both a and b

