Worksheet #1 - Monatomic Ions

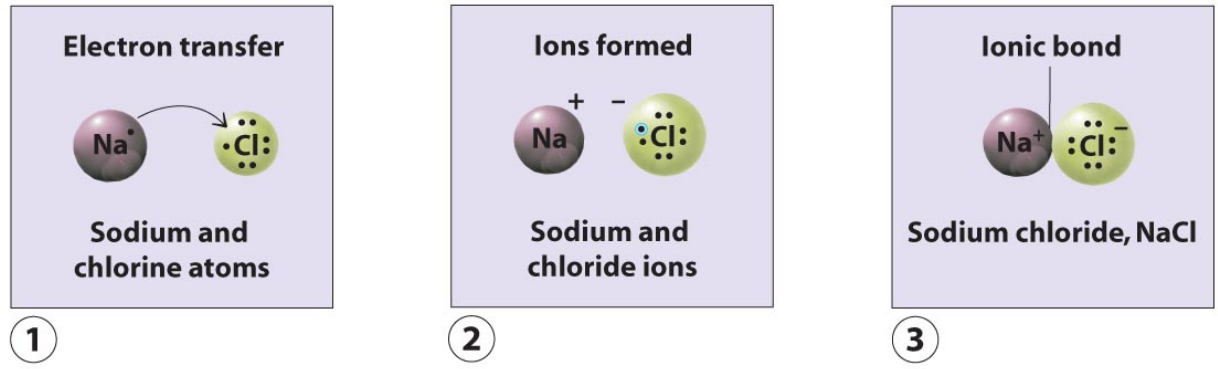
1. sodium	Na	sodium ion	Na^+
2. bromine	Br	bromide ion	Br^-
3. magnesium	Mg	magnesium ion	Mg^{2+}
4. chlorine	Cl	chloride ion	Cl^-
5. oxygen	O	oxide ion	O^{2-}
6. boron	B	———	—
7. lithium	Li	lithium ion	Li^+
8. neon	Ne	—	—
9. phosphorus	P	phosphide ion	P^{3-}
10. aluminum	Al	aluminum ion	Al^{3+}
11. Calcium	Ca	calcium ion	Ca^{2+}
12. iodine	I	iodide ion	I^-
13. nitrogen	N	nitride ion	N^{3-}
14. Cesium	Cs	Cesium ion	Cs^+
15. Sulfur	S	sulfide ion	S^{2-}
16 fluorine	F	fluoride ion	F^-
17. potassium	K	potassium ion	K^+
18. barium	Ba	barium ion	Ba^{2+}
19. hydrogen	H	hydrogen ion hydride ion	H^+ H^-
20. helium	He	———	—

Ionic Bond

- bond that exists between a metallic ion and nonmetallic ion

cation anion

due to the transfer of electrons from a metal to a nonmetal



http://safeshare.tv/w/DOYYHNayWO

Simple Binary Ionic Compounds

Ionic compounds are formed by the combination of a cation and an anion and are electrically neutral. Binary compounds are compounds that contain only two elements.

Examples:

Na^+ Cl^-

name - Sodium chloride

chemical formula - NaCl

Al^{3+} P^{3-} (metal) (nonmetal)

name - Aluminum phosphide

chemical formula - AlP

Na^+ O^{2-} Na^+ O^{2-}

name - Sodium oxide

chemical formula - Na_2O

Al^{3+} Cl^- Cl^- Cl^- $Al^{3+}(Cl^-)_3$ Al_1Cl_3 $AlCl_3$

name - Aluminum chloride

chemical formula - $AlCl_3$

Mg^{2+} P^{3-} Mg^{2+} Mg^{2+} Mg^{2+} P^{3-} Mg_3P_2

name - Magnesium phosphide

chemical formula - Mg_3P_2

Al^{3+} O^{2-}

name - aluminum oxide

chemical formula - Al_2O_3

magnesium oxide

Mg^{2+} O^{2-} $Mg_2O_2 \rightarrow MgO$

X_4Y_2

X_2Y

★

http://safeshare.tv/w/mqGSgYvYAY

Attachments

Science 10 - Grade 9 Chem Topics.docx

Science 10 - Grade 9 Chem - What Do You Know.docx

Science 10 - Activity - Molecular Models.docx

Science 10 - Answer Key - Ions and Subatomic Particles.pdf