

College Prep Chemistry of the Earth System

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Assignment 4B (*Part 2*)

30 Points

Single e<sup>-</sup> Ionic Bonding

w/ Lewis Dot Structures

*Answer the following questions*

1. Explain the format  $X_aY_b$ . What does each part of the formula refer to?
2. What occurs in an ionic bonding process (*in general*)?
3. For the following ionic compounds show the transfer of electrons, ion form, and ionic formula.
  - a. 1 Li and 1 F
  - b. 1 Ca and 2 Br
  - c. 1 Al and 3 I
  - d. 1 Si (+4) and 4 Cl
  - e. 2 Na and 1 O
  - f. 3 Li and 1 N
  - g. 1  $\text{Ag}^{1+}$  and 1 Br
  - h. 1  $\text{Fe}^{2+}$  and 2 F
  - i. 2  $\text{Zn}^{1+}$  and 1 O
  - j. 3  $\text{Cu}^{1+}$  and 1 P