

College Prep Chemistry of the Earth System

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Assignment 4A

20 Points

Ions and Ionic Bonding

*Answer the following questions*

1. Define the following
  - a. Inner Electrons
  - b. Valence Electrons
2. What is the difference between and the role of both inner and valence electrons

For the following elements determine the following

- a. Number Valence Electrons
  - b. Dot Structure for a neutral atom
  - c. The gain or loss of electrons  
(*actual number lost, charge, anion or cation*)
  - d. Lewis Dot Structure for the ion
3. Lithium (Li)
  4. Calcium (Ca)
  5. Gallium (Ga)
  7. Phosphorous (P)
  8. Sulfur (S)
  9. Fluorine (F)