

further examples:

1. typical ions

please choose 2 anions and cations each from the main groups of the periodic table from within the first 4 periods. Specify symbol, name, electron configuration and charge. Form 4 possible stoichiometric compounds and name them.

cation	anion	charge	compound	name of the compound

2. Choose 2 examples for ionic and covalent compounds each. Specify the molecular formula and the name of the substance. Draw the Lewis structure.

3. Describe the type of bonding in MgCl_2 and in PCl_3 .

4. Which kind of bond is joining the following substances, please complete the table:

substance	molecular formula	type of bond
metallic iron		
calcium bromide		
silicon dioxide		
sodium sulfide		

5. Consider the strontium iodide molecule, specify the type of bond, and calculate the molecular mass.

6. What is the molecular formula for calcium hydroxide? What kind of bond can be found between the atoms? Calculate the molar mass.

7. What is the molecular formula for magnesium sulfate? What kind of bond can be found between the atoms? Calculate the molar mass

8. What is the molecular formula for phosphorus trichloride? Calculate the molar mass .

9. Explain the ionization of metallic calcium by a reaction equation

10. Explain the formation of an arsenide ion with a reaction equation