

Study Guide Chapter Four - Bonding

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|--|------------------------------|---------------------------|-----------------|
| magnesium oxide | 2 | a negative ion | 2 |
| oppositely charged ions | covalent | covalent bond | polyatomic ions |
| positive ion | sodium sulfide | when dissolved in water | neutral |
| an atom or group of atoms that has become electrically charged | they have low melting points | electrons are transferred | |

1. What is an ion? _____
2. When an atom loses an electron, it becomes a _____
3. When an electron is transferred from a sodium atom to a chlorine atom, the chlorine atom becomes _____
4. An ionic bond is the attraction between _____
5. An ionic bond is formed when _____
6. Ionic compounds are electrically _____
7. How many chlorine ions are needed to cancel the 2+ charge of magnesium in magnesium chloride ($MgCl_2$). _____
8. Ions that are made of more than one atom are examples of _____
9. What is the chemical name for the compound with the formula Na_2S _____
10. The ionic compound MgO is called _____
11. This is NOT a characteristic property of ionic compounds _____
12. In what form can an ionic compound conduct electricity? _____
13. A chemical bond that forms when two atoms share electrons is called a(n) _____
14. Bonds that form between two nonmetals are usually _____
15. How many covalent bonds can oxygen form? _____