

Bonding Remediation

Test evaluation

| | | | | |
|----------|----------|----------|----------|----------|
| 1. #3-3 | 2. #3-1a | 3. #3-4b | 4. #2-3 | 5. #2-1c |
| 6. #2-1b | 7. #3-3e | 8. #3-3 | 9. #3-1b | 10. |
| | | | | |

#3-1/#3-2 Ionic Bonding _____/7

#3-3/#3-4 Covalent Bonding _____/12



#2 Atomic structure _____/3

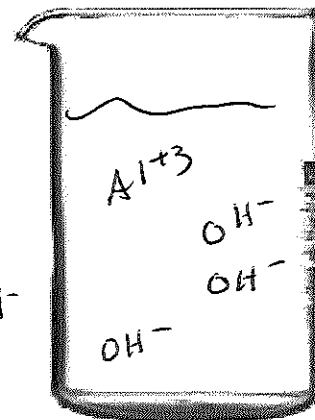
↑
If you do not know where you are struggling, see your teacher

Ionic Bonding

1. Convert the following formulas and names.



- a. CaCO_3 Calcium Carbonate
- b. CuO Copper(II) oxide
- c. Cu_2O Copper(I) oxide
- d. Aluminum Hydroxide Aluminum hydroxide
- e. Iron(III) oxalate $\text{Al}(\text{OH})_3$
 $\text{Fe}_2(\text{C}_2\text{O}_4)_3$
- f. Ammonium sulfate $(\text{NH}_4)_2\text{SO}_4$



2. Aluminum hydroxide dissolves in water

- a. Write the dissolving reaction. $\text{Al}(\text{OH})_3 \rightarrow \text{Al}^{3+} + 3\text{OH}^-$
- b. Draw out a particulate drawing in the beaker.

3. Aluminum Hydroxide will have a (greater/less/equal) melting point compared to Aluminum oxide. Justify

less Coulombic attraction $\text{Al}(\text{OH})_3$ vs Al_2O_3
 $+3 -1$ vs $+3 -2$



Covalent Bonding

4. Convert the following formulas and names

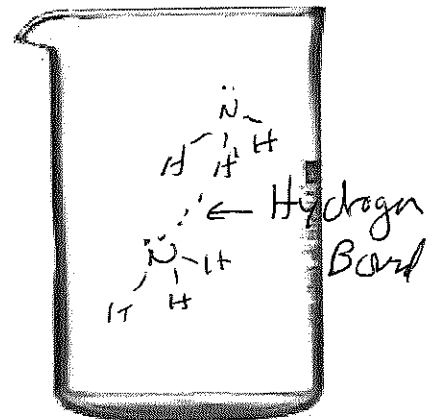
- a. CO_2 Carbon dioxide
- b. NO Nitrogen monoxide
- c. N_2O_5 dinitrogen pentoxide
- d. Sulfur Hexafluoride SF_6
- e. Carbon monoxide CO
- f. Carbon tetrachloride CCl_4



Covalent
naming

5. Ammonia is a common substance in cleaning agents. The formula is NH_3 . Answer the following questions.

- a. Create a Lewis structure. $\text{H}-\overset{\cdot\cdot}{\underset{\cdot\cdot}{\text{N}}}-\text{H}$
- b. What is the electronic structure? H tetrahedral
- c. What is the molecular structure? Trigonal Planar
- d. Is there a polar bond? yes
- e. Is the substance polar? yes, Asymmetrical
- f. In the beaker to the right draw a sample of liquid ammonia. Label the intermolecular force



Covalent
Properties

6. The lipid bilayer is a component of every cell in the human body. Based upon the drawing provided explain and identify what and why the forces here.

