**CHEMISTRY 2022-23 November 17, 2022**

**Today’s Agenda (Day 56)**

1. HOUSEKEEPING ITEMS

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1. Homework Check:

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1. Class Activity:

🡪 **Mini-Lab 8 – Compare Melting Points**

🡪THURSDAY: Chapter 9 PPT Review

1. Section 9.1 – Reactions and Equations
2. Section 9.2 – Classifying Chemical Reactions
3. Section 9.3 – Reactions in Aqueous Solutions

HOMEWORK:

* READ: Chapter 9 – Chemical Reactions
* COMPLETE: Practice Problems 9.1 – 9.5
* STUDY: Chapter 8 Test, Chapter 9 Vocabulary Quiz & Test

Chapter 9 – Chemical Reactions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| aqueous solution | chemical equation | chemical reaction | Coefficient | combustion reaction | complete ionic equation | decomposition reaction |
| double-replacement reaction | net ionic equation | Precipitate | Product | Reactant | single-replacement reaction | Solute |
| Solvent | spectator ion | synthesis reaction |  |  |  |  |

Chapter 10 – The Mole

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Avogadro’s number | Empirical formula | hydrate | Molar mass | Mole | Molecular formula | Percent composition |

Chapter 11 – Stoichiometry

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Actual yield | Excess reactant | Limiting reactant | Mole ratio | Percent yield | Stoichiometry | Theoretical yield |

REMINDERS:

* Mini-Lab 8: Comparing Melting Points – Nov. 18
* Practice Problems 9.1 – 9.5 – Nov. 21
* QUIZ: **Ch 9 & 11 Vocabulary** 🡪 **Nov. 21 Note addition of vocabulary words!**
* TEST: **Ch 9** 🡪 **Nov. 22**
* TEST: **Ch 10 🡪 Dec. 1**
* TEST: **Ch 11 🡪 Dec. 8**
* **MIDTERM EXAM: Ch 1 - 11**

**CHEMISTRY 2022-23 MINI LAB**

**CHAPTER 8 MINI LAB – Compare Melting Points**

**How can you determine the relationship between bond type and melting point?** The properties of a compound depend on whether the bonds in the compound are ionic or covalent.

**Procedure** 

1. Read and complete the lab safety form.

2. Create a data table for the experiment.

3. Using a permanent marker, draw three lines on the inside bottom of a disposable, 9-inch aluminum pie pan to create three, equal wedges. Label the wedges, A, B, and C.

4. Set the pie pan on a hot plate. WARNING: Hot plate and metal pie pan will burn skin—handle with care.

5. Obtain samples of the following from your teacher and deposit them onto the labeled wedges as follows: sugar crystals (C 12H 22O 11), A; salt crystals (NaCl) B; paraffin (C 23H 48), C.

6. Predict the order in which the compounds will melt.

7. Turn the temperature knob on the hot plate to the highest setting. You will heat the compounds for 5 min. Assign someone to time the heating of the compounds.

8. Observe the compounds during the 5-min period. Record which compounds melt and the order in which they melt.

9. After 5 min, turn off the hot plate and remove the pie pan using a hot mitt or tongs.

10. Allow the pie pan to cool and then place it in the proper waste container.

**Analysis**

1. State Which solid melted first? Which solid did not melt?

2. Apply Based on your observations and data, describe the melting point of each solid as low, medium, high, or very high.

3. Infer Which compounds are bonded with ionic bonds? Which are bonded with covalent bonds?

4. Summarize how the type of bonding affects the melting points of compounds.

**CHEMISTRY 2022-23 PRACTICE PROBLEMS**

**CHAPTER 9 – Reactions and Equations**

**Practice Problems 9.1 –** Write Balanced Chemical Equation

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**Practice Problems 9.2 –** Single- and Double-Replacement Reactions

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**Practice Problems 9.3 –** Reactions That Form a Precipitate

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**Practice Problems 9.4 -** Reactions That Form Water

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**Practice Problems 9.5 –** Reactions That Form Gases

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