

14.3

HYDROGEN IONS AND ACIDITY

Section Review

Objectives

1. Calculate concentrations based on the pH of a given acid or base solution.
2. Calculate pH values and concentrations of acids and bases and use these values to determine the pH of a given solution.
3. Calculate the pH of a buffer (see problems).

Vocabulary

- | | | |
|-------------------|-----------------------------|--------------------|
| 1. autoionization | 2. conjugate acid-base pair | 3. acid solution |
| 4. autoionization | 5. acid rain | 6. buffer solution |
| | 7. acid solution | 8. pH |

Key Equation

- | | |
|-------------------------------------|-------------------------------------|
| 1. $\text{pH} = -\log [\text{H}^+]$ | 2. $\text{pH} = -\log [\text{H}^+]$ |
| 3. $\text{pH} = -\log [\text{H}^+]$ | 4. $\text{pH} = -\log [\text{H}^+]$ |

Part A Completion

Write the requested unit or numerical information of the values indicated that are indicated in the problem. Write the unit or numerical value in the space provided.

What substance is _____, a strong hydrogen ion donor? _____
 _____ is the conjugate base of this acidic substance. _____
 _____ is the conjugate base of this acidic substance. _____

_____ is the conjugate base of _____.
 _____ is the conjugate base of _____.
 _____ is the conjugate base of _____.
 _____ is the conjugate base of _____.

_____ is the conjugate base of _____.
 _____ is the conjugate base of _____.
 _____ is the conjugate base of _____.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

19 2 Hydrogen And Acidity Section Review

M Walker



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