

Chemistry chapter 14

Molarity

Use a separate sheet of paper and show all of your work to solve the following problems.

Part A: Determine the molarity of the following solutions:

1. 4.00 moles of NaOH dissolved in 3.50 L of solution.
2. 0.250 moles of H_2SO_4 dissolved in 0.500 L of solution.
3. 0.75 moles of Li dissolved in 245 ml of solution.

Part B: Determine the number of moles of solute dissolved in each of the following:

4. 1.50 liters of 0.50 M NaOH solution
5. 585 ml of 18 M H_2SO_4 solution
6. 0.80 liters of 0.22 M KCl solution
7. 885 ml of 1.30 M H_2SO_4 solution

Part C: Determine the number of grams of solute contained in the following:

8. 3.00 L of 1.6 M of NaOH solution
9. 0.50 L of 0.45 M HNO_3 solution
10. 425 mL of 1.55 M CaCO_3 solution
11. 602 mL of 1.35 M $\text{Mg}(\text{NO}_3)_2$ solution