

$$7. t, \mu = x \pm \frac{s}{\sqrt{n}}$$

8. (1)D; (2)A; (3)C; (4)B

9. NO_3^- , 因为吸附层优先吸附 Ba^{2+} , 而 $\text{Ba}(\text{NO}_3)_2$ 的溶解度最小, 所以吸附 NO_3^-

10. -0.20%

11. Ca^{2+}

12. 0.2477

13. 0.144 V

三、计算题(共 75 分)

1. (15 分)

1) 酚酞体积 18.95 mL < 甲基橙体积 = 39.20 - 18.95 = 20.25 mL, 混合碱组成为 $\text{Na}_2\text{CO}_3 + \text{NaHCO}_3$

$$\text{Na}_2\text{CO}_3 \% = \frac{0.110 \times 18.95 \times 2 \times \frac{106.0}{2000}}{2.3500 \times \frac{25.00}{250.00}} \times 100 = 94.0$$

$$\text{NaHCO}_3 \% = \frac{0.110 \times (39.20 - 18.95 \times 2) \times \frac{84.01}{1000}}{2.3500 \times \frac{25.00}{250.00}} \times 100 = 5.11$$