

大葉大學九十學年度轉學招生考試試題紙

系 別	日\ 第二部	年級	考 試 科 目 (中 文 名 稱)	考試日期	節次	備註
食品工程系	日	三	分析化學(含儀分)	七月 二十四日	四	可攜帶計算機

【簡答題】每題 10 分

- 1、 Briefly describe or define (a) a Brønsted-Lowry base. (b) neutralization, in terms of the Brønsted-Lowry concepts.
- 2、 Explain the different between a gravimetric precipitation and volatilization method.
- 3、 Describe (a) absorbance (b) transmittance
- 4、 What is the difference between gas-liquid and liquid-liquid chromatography.
- 5、 Briefly describe DSC.

【計算題】每題 10 分,請詳寫計算步驟否則一概不計分

- 6、 Determine the mass in grams of Na^+ (22.99 g/mol) in 25.0 g of Na_2SO_4 (142.0 g/mol).
- 7、 Describe the preparation of 500 mL of 0.0740 M Cl^- solution from solid $\text{BaCl}_2 \cdot 2\text{H}_2\text{O}$ (244 g/mol).
- 8、 What mass of $\text{Ba}(\text{IO}_3)_2$ (487g/mol) can be dissolved in 500.0 mL of water at 25 °C ?
The solubility-product constant for $\text{Ba}(\text{IO}_3)_2$ is 1.57×10^{-9} .
- 9、 A 0.235 g sample containing *only* NaCl (58.44 g/mol) and BaCl_2 (208.23 g/mol) yielded 0.4637 g of dried AgCl (143.32 g/mol). Calculate the percent of each halogen compound in the sample.
- 10、 Titration of 0.2121 g of pure $\text{Na}_2\text{C}_2\text{O}_4$ (134.00 g/mol) required 43.31 mL of KMnO_4 (158.03 g/mol). What is the molarity of the KMnO_4 solution?

The chemical reaction is

