題號: 94

國立臺灣大學 104 學年度碩士班招生考試試題

科目:分析化學(A)

題號: 94

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- (1) Describe the principle of the chromatographic method. (10%) What are the differences between gas chromatography and high-performance liquid chromatography. (10%)
- (2) The chloride in seawater is traditionally measured by a AgCl titration method. Give the details of the method. (10%).
- (3) Calculate the ionic strength of (a)  $0.1 \text{ F KNO}_3$  (b)  $0.1 \text{ F Na}_2\text{SO}_4$  (c)  $0.05 \text{ F KNO}_3 + 0.01 \text{ F Na}_2\text{SO}_4$  (30%)
- (4) A moon rock was collected by Apollo XI and delivered to you. Can you give write down a systematic layout of methods and instruments describing how to measure the rare earth elements in that rock. (20%)
- (5) The bottom mud in the Dan-Shuei River may contain pesticides. Describe at least one reasonable method to detect those pollutants. (20%)

## 試題隨卷繳回