

淡江大學 101 學年度碩士班招生考試試題

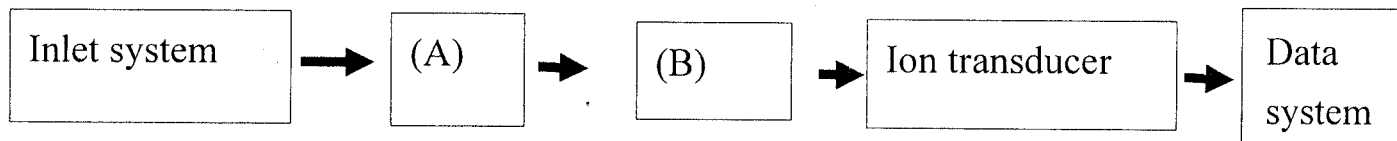
系別：化學學系

科目：儀器分析

考試日期：2 月 26 日(星期日) 第 3 節

本試題共 6 大題， 1 頁

1. (20 分) Explain why the static magnetic field B_0 and the RF field B_1 are applied in FT-NMR.
2. (20 分) Describe and explain two of the differences between phosphorescence and fluorescence.
3. (15 分) Describe and explain three of the possible variables in chromatography that lead to zone separation.
4. (20 分) The principal components of a mass spectrometer are shown below.



- (a) What may be the (A) and (B) components?
 - (b) Describe their purposes of both components.
 - (c) Give an example and describe the operation principle of your example for (B) component.
5. (10 分) The intensity of a line for atomic Cs is much lower in a natural gas flame, which operates at 1800°C , than in a hydrogen-oxygen flame, whose temperature is 2700°C . Explain.
 6. (15 分) Describe the operation principle of a Michelson interferometer in a FT instrument.