

臺北醫學大學九十學年度研究所碩士班招生考試題目卷

科目：儀器分析

九十學年度研究所碩士班招生筆試
所別：生藥
考科：儀器分析

題目試卷共 / 張，本試卷為第 / 張

1. Illustrate the modes of chromatography. (15%)
2. Describe the factors that influence the intensity of fluorescence. (15%)
3. Explain the following terms: (40%)
 - a) supercritical fluid extraction
 - b) electron spin resonance
 - c) atomic absorption spectrophotometry
 - d) chromophore
4. Indicate the advantage and limitation of the following detectors:
 - a) UV
 - b) EC
 - c) RI(15%)
5. Draw the multiplicity of the protons and assign the following ^1H -NMR data: δ 8.50 (2H), 7.20 (2H), 6.60 (1H), 5.85 (1H), 5.35 (1H) in the 4-vinylpyridine. ($J_{\text{ortho}} = 9 \text{ Hz}$, $J_{\text{meta}} = 3 \text{ Hz}$, $J_{\text{trans}} = 17 \text{ Hz}$, $J_{\text{cis}} = 12 \text{ Hz}$, $J_{\text{gem}} = 1.5 \text{ Hz}$), suggest other NMR techniques if necessary to confirm the structure elucidation. (15%)