

中國文化大學 104 學年度碩士班考試入學招生考試試題

M-3-1  
系所組：化學系應用化學碩士班

節次：第 1 節

科目：有機化學與分析化學

有機化學：Define the following terms : ( 5 points each )

- (1) Organic Chemistry
- (2) Hofmann vs Zaitsev Elimination Reactions
- (3) Markovnikov's rule
- (4) Aromatic Compounds, *Antiaromatic* Compounds, *Nonaromatic* Compounds and Aliphatic Compounds
- (5) Lewis acid and Lewis base
- (6) Aldol Condensations
- (7) Nucleophilic Aliphatic Substitution  $S_N2$
- (8) Wittig reactions
- (9) Electrophilic Aromatic Substitution
- (10) Nucleophilic Aromatic Substitution

分析化學：

1. Please describe the difference between the AES and AAS. (10 分/題)
2. What is precision and accuracy? (10 分/題)
3. Please transfer the following transmittance to absorption (1): 0%; (2) 100% (5 分/小題)
4. How do you improve the performance of the GC? (10 分/題)
5. What are the advantages of double-beam optics over single-beam optics in IR? (10 分/題)