

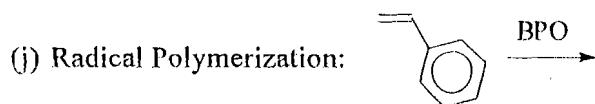
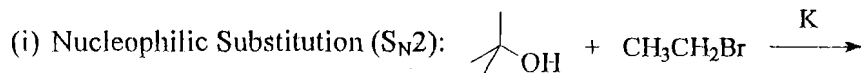
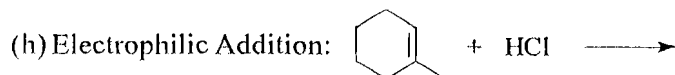
系別：化學工程與材料工程學系

科目：有機化學

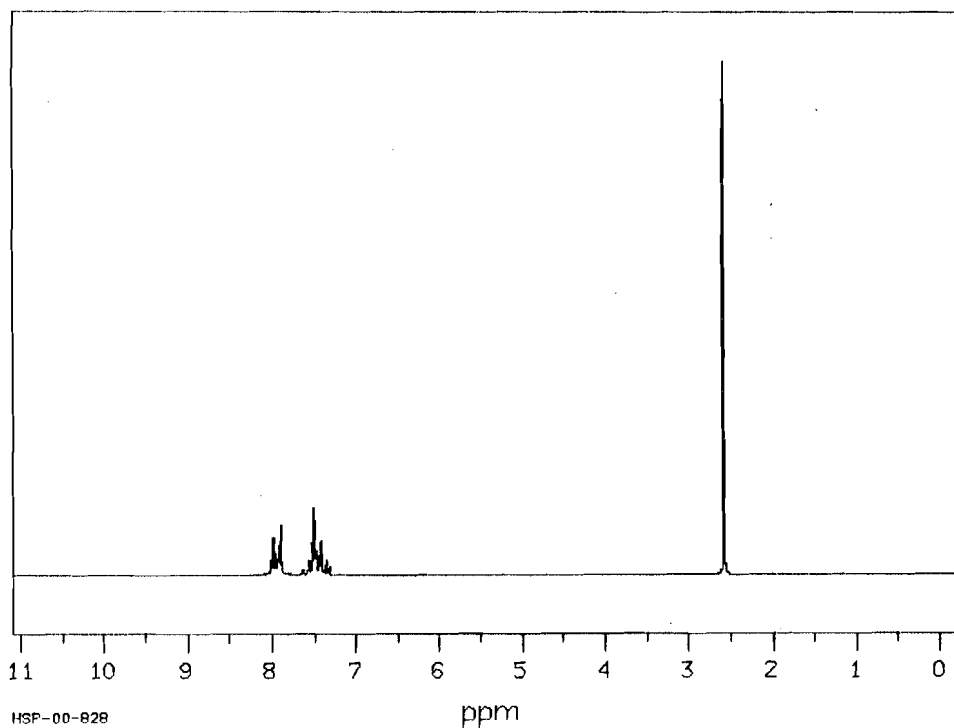
准帶項目請打「V」

簡單型計算機

本試題共 2 頁



- Draw the reactions of (a) iodoform test and (b) enolate alkylation of an acetyl group. (10%)
- Draw the reactions of the synthesis of amines from carboxylic acids and the Hofmann rearrangement. (10%)
- A condensation product formed between a diacid and diamine is called a polyamide (Nylon). Draw the structure of Nylon 66 formed between adipic acid and 1,6-diaminohaxane. (10%)
- Give the structure for a compound with a formula C_8H_8O that is consistent with the following spectra (δ : 2.58, 3H; 7.68 to 7.32, 3H; 7.94, 2H) (10%)



淡江大學 95 學年度碩士班招生考試試題

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78-2

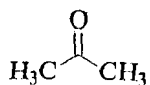
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簡單型計算機

本試題共 2 頁

本試題雙面印製

1. Draw the structures for each of the following compounds. (24%)

For example: acetone 

(a) Acetonitrile

(e) Glycine

(b) Bisphenol A

(f) 1-Methyl-pyrrolidone

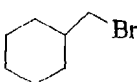
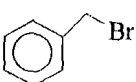
(c) m-Chloronitrobenzene

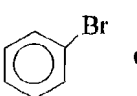
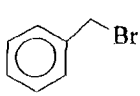
(g) Pyrrole

(d) N,N-Dimethyl formamide

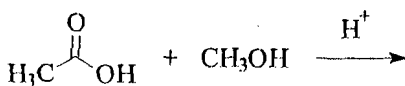
(h) Vinyl acetate

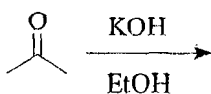
2. Which compound in each of the following pairs is more active toward a nucleophilic substitution? (6%)

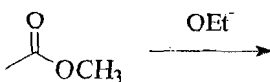
(a) S_N1 condition:  or 

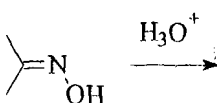
(b) S_N2 condition:  or 

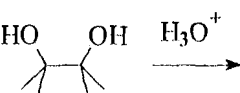
3. Draw structures of the preferred products of the following reactions. (30%)

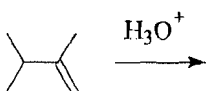
(a) Esterification: 

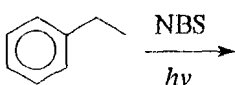
(b) Aldol Condensation: 

(c) Claisen Condensation: 

(d) Beckmann Rearrangement: 

(e) Pinacol Rearrangement: 

(f) Olefin Isomerization: 

(g) Benzylic Bromination: 

◀ 注意背面尚有試題 ▶