

Unit Test 单元测验

A-Level Chemistry · Unit 32 Hydroxy compounds

23 marks · 25 minutes

Score 得分:

1 Vocabulary ____ / 10

2 Questions ____ / 13

Total ____ / 23

Part 1 · Vocabulary 词汇 (10 marks). Spelling must be exact in Sections A and C. A、C 部分拼写必须完全正确。

Section A · Chinese to English 中译英

Write the English word.

1. 酰氯[1]
2. 苯胺[1]
3. 重氮盐[1]
4. 偶氮化合物[1]
5. 硝化[1]
6. 侧链[1]
7. 芳香[1]
8. 氢化焓变[1]

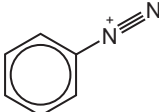
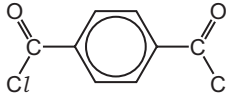
Section B · English to Chinese 英译中

Write the Chinese meaning.

9. bromination[1]
10. transition element[1]

Part 2 · Exam questions 考试题 (13 marks, 2 questions) begins on the next page. Answer in the spaces provided. 第二部分从下页开始。

10 (a) Complete the table to show the structure of the organic product from each reaction of phenol, C₆H₅OH.

reaction	reaction mixture	structure of organic product
1	phenol + NaOH(aq)	
2	phenol + Na(s)	
3	phenol +  (aq) + NaOH, at 4 °C	
4	an excess of phenol + 	

[4]

(b) Identify **two** reactions from the table in which ethanol would behave in a similar way to phenol.

..... [1]

[Total: 5]

- 7 (a) Explain why phenol is brominated much more easily than benzene is brominated.

.....
.....
.....
.....
..... [3]

- (b) Iodine monobromide, I–Br, reacts with benzene in the presence of an AlBr₃ catalyst.

Predict whether the organic product will be bromobenzene or iodobenzene.
Explain your answer.

.....
.....
..... [1]

- (c) Fig. 7.1 shows some reactions of phenol.

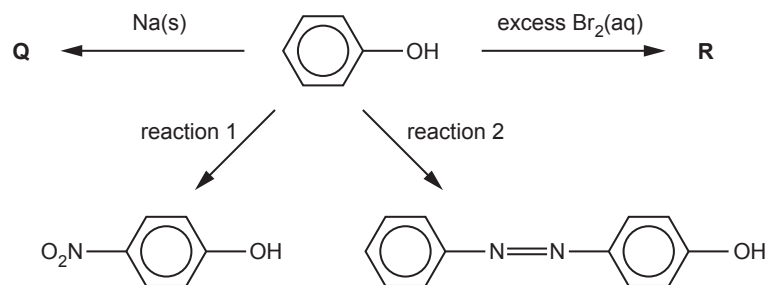


Fig. 7.1

- (i) Give an equation for the reaction of phenol with Na(s).

..... [1]

- (ii) Draw the structure of the organic product, **R**, formed when phenol reacts with an excess of Br₂(aq).

[1]

- (iii) State the reagents and conditions for reaction 1 and reaction 2 in Fig. 7.1.

reaction 1

reaction 2

[2]

[Total: 8]