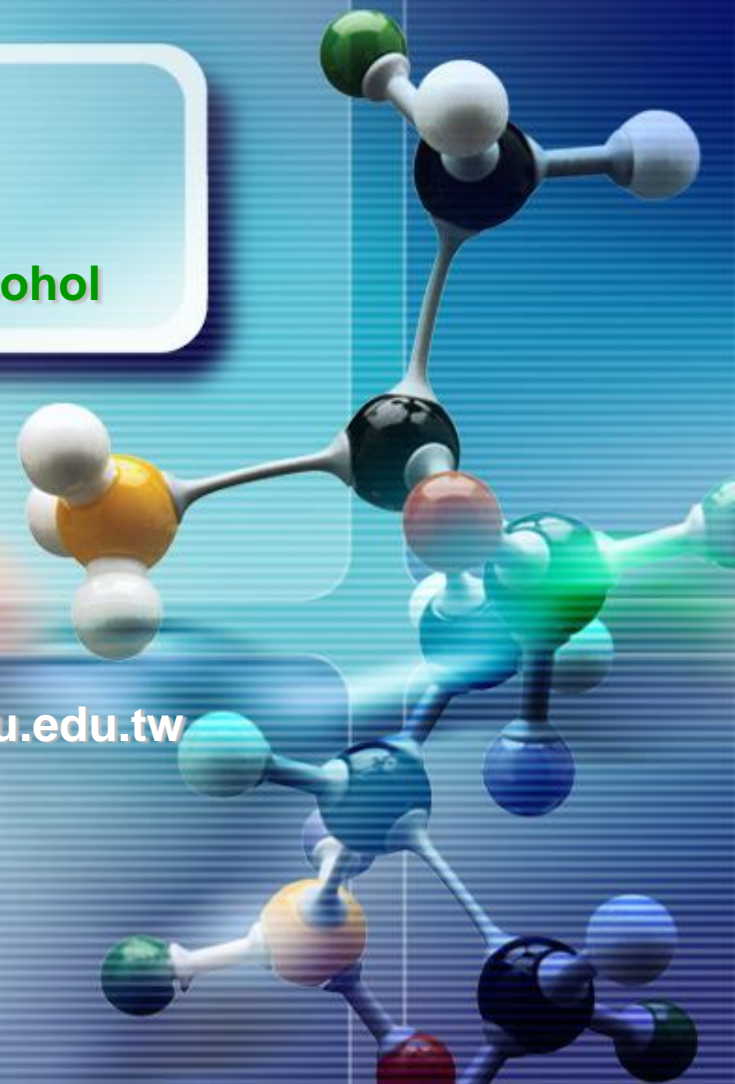




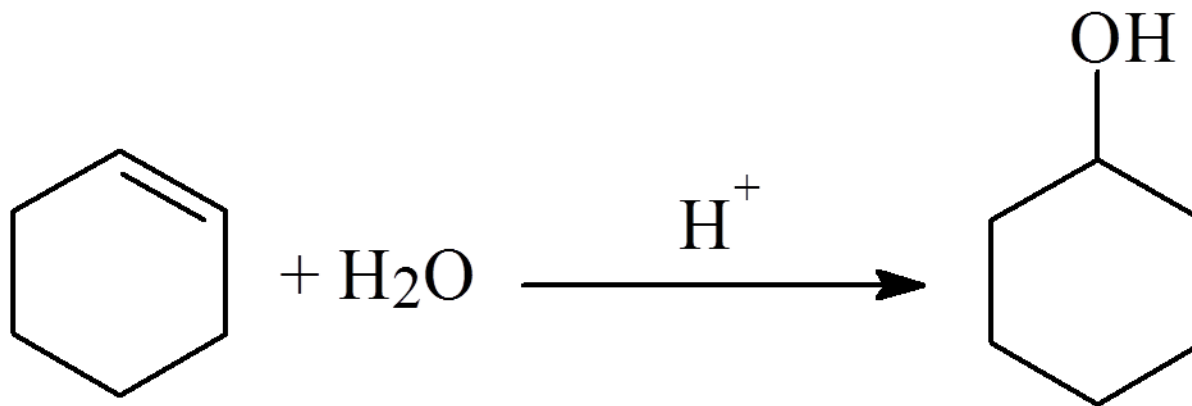
加成反應

Addition -- Conversion of Alkenes to Alcohol

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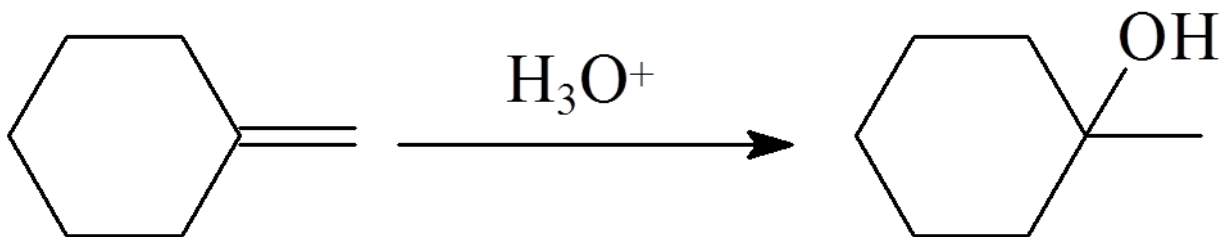
1. The electrophilic addition reactions : (reversible reaction of the elimination)



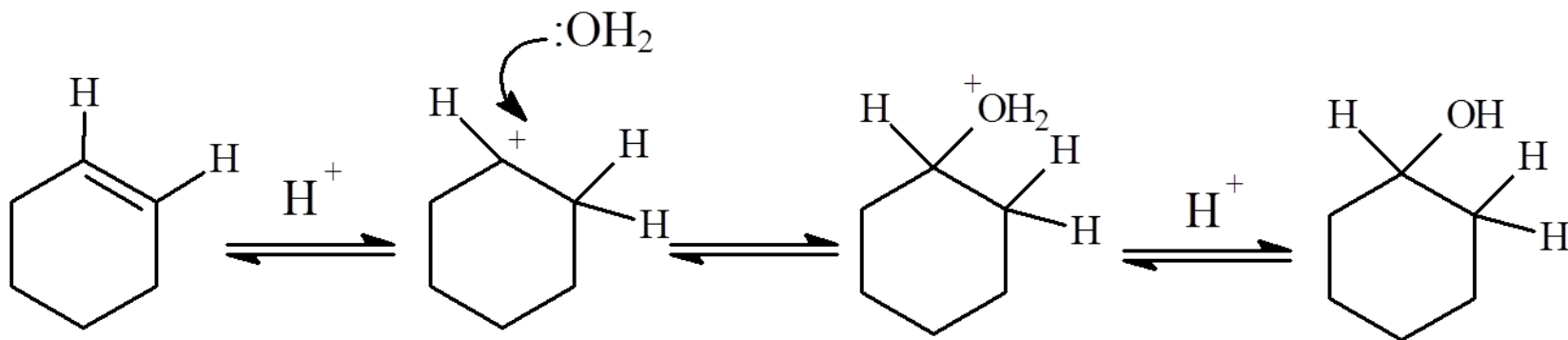
bp: 83°C
den.:0.81 MW:82.14

bp: 161°C
den.:0.96 MW:100.16

2. The reaction obeys the Markovnikov's rule.



3. Mechanism :



pour 1.7mL dist. H₂O in 50mL R.B. flask

↓ (ice-water bath)

add 3.5mL conc. H₂SO₄ carefully

↓

add 4.1g (5.1mL) cyclohexene (dropwise)

↓

stopper the flask, shake vigorously for **30~40 min**

↓ (till no two layers)

add **30 mL** dist. H₂O

↓

distill and collect the distillate **V=25 mL**



add 5g NaCl_(s) and stir to dissolve



extract the product with 3ml ether



collect the organic layer



dry with (0.5g) Na₂CO_{3(anhy)}



filter and collect the filtrate



simple distillation (ether b.p.34.5°C, cyclohexene bp.83 °C)



**collect the bp.155~162°C material
(cyclohexanol bp.161°C)**



weight



calculate the % yield



1. 繳交產物並告知產物淨重。
2. 整理儀器櫃，並將圖片上傳 Zuvio
3. 實驗問題：1, 3





The End !

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