

223 M1620 (223 D1620)

高等化學生物學(專論)二(3 學分) : 有機合成乙 (3 學分)

(Discussion in)Advanced Chemical Biology(II) (3)

英文

(1) Synthetic Design

Retrosynthetic analysis
Steps in planning a synthesis
Stereochemical considerations

(2) The Concept of Protecting Functional Groups

Protection of NH groups
Protection of OH groups of alcohols
Protection of carbonyl groups
Protection of carboxyl groups
Protection of double bonds

(3) Functional Group Transformations

Oxidation and reduction
The chemistry of π -bonds and related reactions

(4) Formation of Carbon-Carbon Single Bonds

Enolates
Organometallic reagents

(5) Formation of Carbon-Carbon π -Bonds

Formation of double bonds
Formation of triple bonds

(6) Synthesis of Biomolecules

Combinatorial chemistry
Peptide chemistry
Carbohydrate synthesis
Nucleoside and nucleotide chemistry