

朝陽科技大學 091學年度第2學期教學大綱
Asymmetric Synthesis 不對稱合成

當期課號	7210	Course Number	7210
授課教師	李瑜章	Instructor	LI, YU JANG
中文課名	不對稱合成	Course Name	Asymmetric Synthesis
開課單位	應用化學系碩士班一A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	<p>本課程首先將複習立體化學的基本概念。然後以最新發表的期刊論文為例, 探討製備純掌性異構物之各種方法, 這些方法主要包括:</p> <ol style="list-style-type: none"> 1. 羰基之α-烷化和有催化劑之烷化 2. Aldol 反應 3. 不對稱氧化反應 4. 不對稱Diels-Alder反應及其他環化反應 5. 不對稱催化氫化反應及其他還原反應 6. 不對稱合成在合成天然物上的應用 7. 以?為催化劑的生物合成反應 	Objectives	<p>This course will first review key aspects of stereochemistry. The various methods for the preparation of single enantiomer will then be reviewed with the most recent published results from a variety of Journal literature. The following asymmetric chemical transformations will be emphasized:</p> <ol style="list-style-type: none"> 1. α-alkylation and catalytic alkylation of carbonyl compounds 2. Adol reactions 3. Aymmetric oxidation 4. Aymmetric Diels-Alder and other cyclization reactions 5. Asymmetric catalytic hydrogenation and other reduction reactions. 6. Applications of asymmetric reactions in the synthesis of natural products 7. Enzymatic reactions.
教材	黑板上課, 作業, 口頭報告	Teaching Materials	chalk talk, home work , oral report
成績評量方式	期中考30%, 期末考40%, 作業20%, 口頭報告10%	Grading	midterm 30%, final40%. homework 20%, oral report 10%
教師網頁	-		
教學內容	<p>chapter1/ introduction. chapter2/ Principles chapter3/ Addition to carbonyl compounds chapter4/ α-substitution using chiral enolates chapter5/ asymmetric aldol reactions chapter6/ addition to c-c double bonds chapter8/ rearrangements</p>	Syllabus	<p>chapter1/ introduction. chapter2/ Principles chapter3/ Addition to carbonyl compounds chapter4/ α-substitution using chiral enolates chapter5/ asymmetric aldol reactions chapter6/ addition to c-c double bonds chapter8/ rearrangements</p>

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