

朝陽科技大學 094學年度第1學期教學大綱
Heterocyclic Chemistry 雜環化學

當期課號	3391	Course Number	3391
授課教師	張清堯	Instructor	CHANG,CHING YAO
中文課名	雜環化學	Course Name	Heterocyclic Chemistry
開課單位	應用化學系(二進)五A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	本課程的目標是讓學生對雜環化合物的結構，反應及合成有進一步的認識。內容包含五元環、六元環及四元環等含有氧、氮、硫原子化合物的介紹及討論。	Objectives	Various heterocyclic systems, including six-membered or five-membered ring compounds with one, two or more heteroatoms, will be discussed. Three-, four- and seven-membered ring compounds will be introduced. The contents of lectures include preparation and properties of heterocyclic compounds. Especially, the general features of those properties will be identified and emphasized.
教材	Text book:"Contemporary heterocyclic chemistry", Newkome, G. R.; Paudler, W. W. John Wiley & Sons, Inc. New York Reference:"Heterocyclic chemistry", Sainsbury, M. 1st ed. John Wiley & Sons, Inc. New York "Heterocyclic chemistry", Gilchrist, T. L. 3rd ed. Addison Wesley Longman Limited	Teaching Materials	
成績評量方式	期中考30% 期末考30% 作業及出席40%	Grading	mid-term 30% final term 30% homework & attendance 40%
教師網頁			
教學內容	本課程的教學內容為： 1.雜環化合物的命名要則 2.五圓環芳香雜環化合物的合成 3.五圓環芳香雜環化合物的親電子性取代反應 4.五圓環芳香雜環化合物的親核性取代反應 5.六圓環芳香雜環化合物的合成 6.六圓環芳香雜環化合物的親電子性取代反應 7.六圓環芳香雜環化合物的親核性取代反應 8.七圓環雜環化合物的合成	Syllabus	1.Nomenclature 2.Synthetic routes to selected monocyclic five-membered heteroaromatic compounds 3.Electrophilic substitution. Five-membered heteroaromatic rings 4.Nucleophilic substitution. Five-membered heteroaromatic rings 5.Synthetic routes to selected monocyclic six-membered heteroaromatic compounds 6.Electrophilic substitution. Six-membered heteroaromatic rings 7.Nucleophilic substitution. Six-membered heteroaromatic rings 8.Syntheses and reactions of simple seven-membered unsaturated heterocycles

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