

Modern Organic Synthesis I: Synthetic Chemistry
Fall, 2007

TTh 9:45-11:15 AM

Instructors: D. L. Boger, P. Baran
Handouts: Cookie Santamaria (DB)
T.A.: Ryan Clark (DB)

Lecture Material (DB, September 11–October 30):

Introduction
Oxidations, Reductions, Nucleophilic Additions
Chemistry of Enolates
Ring Forming Reactions
Synthetic Analysis

Grading:

90=A, 80=B, 70=C, 60=D, <60=F based on top score

2	Problem Sets, 100 points each (1-DB, 1-PB)		200
1	100 pt. Problem Set "2006 Total Synthesis Outline" (DB)		100
	Exam 1 (DB)	Oct. 24	100
	Exam 2 (PB)	TBA	<u>100</u>
	Total		500 points

Texts:

- (1) Dale L. Boger, "Modern Organic Synthesis, Lecture Notes", TSRI Press, 1999.
- (2) E. J. Corey and X. Cheng, "The Logic of Chemical Synthesis", John Wiley & Sons, 1989.
- (3) F. A. Carey & R. J. Sundberg, "Advanced Organic Chemistry. Part B: Reactions and Synthesis", 6th ed., Plenum Press, 1990.

Useful Reference Texts (Library Reserve)

- (1) L. F. Fieser & M. Fieser, "Reagents for Organic Synthesis", Vol. 1-18.
- (2) T. W. Greene and Peter G. M. Wuts, "Protective Groups in Organic Synthesis", 3rd ed., John Wiley & Sons, 1999.
- (3) W. Carruthers, "Some Modern Methods of Organic Synthesis", 3rd ed. Cambridge Univ. Press, 1989.
- (4) H. O. House, "Modern Synthetic Reactions", 2nd ed., Benjamin, 1972.
- (5) J. C. Stowell, "Carbanions in Organic Synthesis", John Wiley & Sons, 1979.
- (6) J. March, "Advanced Organic Chemistry", 4th ed., John Wiley & Sons, 1992.
- (7) R. C. Larock, "Comprehensive Organic Transformations", VCH, 1989.
- (8) S. Warren, "Organic Synthesis: The Disconnection Approach", John Wiley & Sons, 1982.
- (9) T. Lindberg (ed.), "Strategies and Tactics in Organic Synthesis", Vol. 1-3, Academic Press, 1984, 1989, 1991.
- (10) J. D. Morrison (ed.), "Asymmetric Synthesis", Vol. 1-5, Academic Press.
- (11) Trost, B. M.; Fleming, I., Eds. "Comprehensive Organic Synthesis", Vol. 1-9, Pergamon Press, 1991.