

CHEM 129A

Organic Chemistry Laboratory – QA Fall

INSTRUCTORS: Neil Schore and Mark Kurth, e-mails: neschore@ucdavis.edu and mjkurth@ucdavis.edu

LECTURES: See QA Nottingham schedule

INSTRUCTOR OFFICE HOURS: To be announced

COURSE MATERIALS: 1) Wilcox and Wilcox, *Experimental Organic Chemistry, A Small Scale Approach*, Second Ed.; 2) *Chemistry 129A Laboratory Manual* (provided); 3) laboratory notebook (provided).

EVALUATION: Three 1-hour exams (150 points), lab reports (150 points), and evaluation of laboratory skills/recordkeeping (50 points), for a course total of 350 points. Final grades will be determined on a curve.

LAB REPORTS: Due dates for lab reports (20 points each for Experiments 1-6, 30 points for Experiment 7) will be announced and graded reports will be returned in the following laboratory period. Students must also record data and observations in their laboratory notebook.

LEARNING OBJECTIVES:

Topics	Reading Assignments
Introduction, Safety	p. 3 - 39 and the 129A lab manual
Simple Distillation	p. 43 - 69
Fractional Distillation	p. 43 - 69
Vacuum and Steam Distillation	p. 70 - 83
Melting Point Determination	p. 84 - 89
Crystallization	p. 89 - 97
Extraction	p. 103 - 115
Chromatography	p. 122 - 142
Synthetic Procedures	p. 176 - 177, 327 - 330

LABORATORY SCHEDULE:

Lab Meeting	Date	Activity
1	Sept 25	lab check-in / start Experiment 1: <i>Simple distillation</i>
2	Oct 2	finish Experiment 1 / start Experiment 2: <i>Fractional distillation</i>
3	Oct 9	finish Experiment 2
4	Oct 16	Experiment 3: <i>Melting points</i>
5	Oct 23	Experiment 4: <i>Recrystallization</i>
6	Oct 30	start Experiment 5: <i>Extraction</i>
7	Nov 6	continue Experiment 5
8	Nov 13	finish Experiment 5 / Experiment 6: <i>Chromatography</i>
9	Nov 20	start Experiment 7: <i>Synthesis</i>
10	Nov 27	finish Experiment 7 / lab check-out