5.37 Introduction to Organic Synthesis Laboratory Spring 2009

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY DEPARTMENT OF CHEMISTRY

Chemistry 5.37

GRADE SHEET

Module 7: Introduction to Organic Synthesis

Student:

Teaching Assistant:

Grading: A – exceptionally good, superior; B – good; C – adequate; D- barely adequate; F- unsatisfactory

Oral Quiz (10%)

Lab Notebook (20%)



Pre-labs (10%), timeliness & completeness (5%), clarity and organization (5%) Comments:

Results and Technique (30%)



<u>General technique (5%)</u> General technique, including reaction setups, quality of TLC analyses, NMR spectra (e.g., good resolution, no solvent peaks), etc. Comments: **Results:** Purification of dibenzyl tartrate (5%) Amount and quality of purified tartrate Comments:

Results: Esterification reaction (5%) *Yield and purity (NMR) of product (and success of column)*

Comments:

Results: Hydrogenation (5%) *Amount and purity of diacid* **Comments**:

Results: Diels-Alder reaction (10%) *Yield and purity (NMR) of product and enantioselectivity; success of column chromatgraphy* Comments:

Analysis and Final Report (35%)



Style, format, discussion (10%) Organization, presentation, clarity, style for literature references, general discussion of results **Comments**:

Experimental procedures (5%) Content, follows Organic Syntheses style guidelines **Comments**:

Spectroscopic analysis (5%) *Presentation of data, assignments and interpretation of spectra* **Comments**:

Mini-review (15%) Comments:

Waste Inventory Sheet (5%)



Final Grade for Module 7

