

Chem. 344
Tentative Laboratory Schedule
SPRING 2007

<u>WEEK</u>	<u>Exercise</u>
<u>Beginning</u> MON. 1/8	Check-in, Safety, Orientation, Protocol
WED. 1/17	<u>Organic Redox Sequence: (1S)-[endo]-borneol to (1 S)-camphor diastereomeric (1S)-isoborneol</u> : Microscale synthesis and purification; IR analysis and NMR determination of diastereomeric distribution
Wed. 1/24	Continue Organic Redox Sequence
Wed. 1/31	<u>Electrophilic Aromatic Substitution I</u> : Nitration of p-dichlorobenzene. Microscale synthesis and purification; tlc, mp and IR characterization.
Wed. 2/7	<u>Electrophilic Aromatic Substitution II</u> : Friedel-Crafts alkylation of 1,4-dimethoxybenzene; characterization by tlc, mp and NMR spectroscopy. Microscale
Wed. 2/14	<u>Electrophilic Aromatic Substitution III</u> : Bromination of Acetanilide; tlc, mp and NMR spectroscopy. Microscale Using splitting patterns to determine structural features.
Wed. 2/21	<u>A Stereoselective Wittig Reaction</u> : Using NMR to determine <u>cis</u> or <u>trans</u> stereochemistry Microscale
Wed. 2/28	<u>An Aldol Reaction</u> : Condensation of Benzaldehyde and Acetone characterization by mp and NMR spectroscopy. Microscale
Wed. 3/7 – 3/20	Grignard Reaction; Synthesis of triphenylmethanol. Anhydrous conditions and mp determination Microscale
3/11 – 3/17	SPRING BREAK
Wed. 3/21	Multistep Synthesis of Benzocaine from p-nitrobenzoic acid; Selective reduction of nitro group and esterification. IR of amino groups and NMR of esters Miniscale
Wed. 3/28	Continuation of Multistep Synthesis
Wed.. 4/4	<u>Acetylation of Glucose</u> : Synthesis and NMR characterization of an anomeric mixture. Karplus curve correlations in determination of stereochemistry.
Wed. 4/11	<u>Esterifications</u> : Banana oil synthesis. Microscale Check-out