Organic Syntheses

Author _____

Procedure Checklist for Authors

The **Procedure Checklist**, along with the **Characterization Checklist** on the following page, is designed to assist authors in providing procedures that meet the criteria for consideration by *Organic Syntheses*. A checked box should be used to indicate that your procedure conforms to the criteria detailed in the accompanying document "Instructions to Authors." Completed Checklists should be forwarded along with the procedure at the time of submission.

Scale of Procedure

☐ The scale of the procedure conforms to criteria established by *Organic Syntheses*.

_____ Please identify the most expensive reagent or starting material and estimate its cost per procedure.

Apparatus Description

☐ Detailed description of glassware assembly is provided.

☐ Information that describes the reaction's atmosphere and environment is provided.

Reagents

☐ A statement regarding the purity for all starting materials and reagents is provided.

☐ The source of starting materials, reagents and solvents is provided.

☐ Justification for the use of a reagent in significant excess is provided in a Note.

Procedure

☐ Temperatures are provided for all stages of the reactions, along with a description of heating or cooling sources.

☐ The order, time, and method of addition of all reagents are clearly described.

☐ The amounts of all reagents are clearly displayed, including mass and/or volumes, mmol, and equivalents.

☐ Descriptions of the reactions' appearance (i.e., color, consistency, gas evolution, exothermicity) are provided.

☐ A description on how the reaction is monitored is provided. (i.e., TLC, GC, HPLC, NMR)

☐ Potential hazards are clearly identified.

Reaction Work-up

☐ Quenching the reaction is described, including rate of addition, temperature, and volumes.

☐ The extraction procedure is described, including solvent, volumes, and the number of extractions performed.

☐ Concentration procedures are clearly described, including temperature and pressures.

☐ Filtration procedures are clearly described.

☐ The use of drying agents are described, including amounts, times, and the method of removal.

Purification

☐ A detailed description of the distillation apparatus and procedure is provided.

☐ The chromatographic purification procedure is described, including stationary phase, column size, solvent systems, volumes of eluents, volume of fractions, and the method by which the mixture is loaded onto the stationary phase.

☐ A detailed description of the recrystallization procedure is provided, including solvent volumes and temperatures.

Characterization

☐ A description of the product's physical appearance and stability is included.

☐ Melting points or boiling points are provided for all products.

☐ Spectroscopic data is provided that establishes a product's identify (^{1}H, ^{13}C, IR required).

☐ Copies of ^{1}H and ^{13}C NMR for all compounds should be provided with integration of all resonances.

☐ The product's purity is established by either satisfactory elemental analysis (preferred) or quantitative NMR, GC, or HPLC analysis of the material on which yield is based..

☐ Enantiomeric purity determination is described for all non-racemic products.

☐ Characterization data and copies of NMR spectra are provided for all non-purified synthetic intermediates.

Discussion

☐ The background discussion provided in the text conforms to *Organic Syntheses* requirements.

☐ Titles are provided for all Tables, Schemes, and Figures.

☐ The references conform to *Organic Syntheses* requirements.

☐ A current mailing address and email address for the lead author, along with acknowledgment of financial support, should be provided in Endnote 1.

☐ Electronic photographs and 100-word biographies are provided for each coauthor.

☐ ChemDraw files are provided for all Figures, Tables, and Schemes.

Each step of the procedure has been performed at least twice on the scale reported in the procedure. The reported yields and characterization data are from those efforts.

Corresponding Author