

Data is reported in this order:

mp/bp (solvent) data °C; $[\alpha]_D^{26}$ +/- data (*c* conc in g/100 mL, solvent); R_f data (solvent);

IR (neat or solvent) data cm^{-1} ^1H NMR (400 MHz CDCl_3) data; ^{13}C NMR (100 MHz,

CDCl_3) data; MS (EI) *m/e* (rel. intensity) data; HRMS calcd for $\text{C}_{11}\text{H}_{14}\text{O}_3\text{S}$ (M^+)

X.XXXX, found X.XXXX. Anal calcd for $\text{C}_{13}\text{H}_{16}\text{O}_4\text{S}$: C, 58.19; H, 6.02. Found:

C, 57.86; H, 6.11.

Common errors:

- The number of sig. Figs in the reagents should correspond to the sig. Figs in the yield
- mL, mp, bp, mmol, min, and h do not have periods.
- *in vacuo* is in italics
- If you used saturated aqueous ammonium chloride solution, then write it out.
- mp, bp, R_f and $[\alpha]_D^{26}$ do not have equal '=' signs.
- For -78 °C. Note: en dash for minus sign, and space between 78 and °
- $[\alpha]_D^{26}$:
 - The number of sign. Figs. In the conc. Of the rotation should correspond to the sig. Figs. In the rotation.
 - There are no units reported for the rotation.
- R_f : note that the f is in italics and is subscripted.
- IR: You only need to list 6-8 diagnostic bands.
- ^1H NMR:
 - Chemical shifts are reported in highest to lowest.
 - Chemical shifts are reported to two decimal places
 - *J* values are in hertz (Hz) and have one decimal place. The *J* is in italics.
 - There are spaces between the *J*, the equal sign, and the number (*J* = 7.2).
- ^{13}C NMR: Chemical shifts have one decimal point.
- Low res MS: You only need to have 8-10 peaks, and these should be the most intense with those of higher mass taking precedence. The M^+ peak should be included if at all possible.
- HRMS: reported to four decimal places.