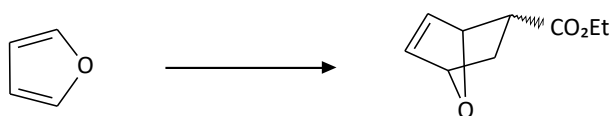


Created: 2023-11-04 14:00

Project 1

Finalized: 2024-01-12 11:13



A: 86.0%

Reaction

Apparatus:

Four-necked bottom flask containing a thermometer, a mechanical stirrer and a nitrogen inlet.



Symbol image

A solution of

20.0 g **Furane** (1.00 equiv; 294 mmol)

47.1 g **Ethyl acrylate** (1.60 equiv; 470 mmol)



Ethyl acrylate safety sheet.pdf

was cooled to 3°C. Then

172 g **Zinc bromide** (1.30 equiv; 382 mmol; 50%)

- was added during 30 min, keeping the temperature at 25°C max.
- heated solution to 50°C during 30 min.
- kept at 50°C during 4.5 h



In-process GC after 5min



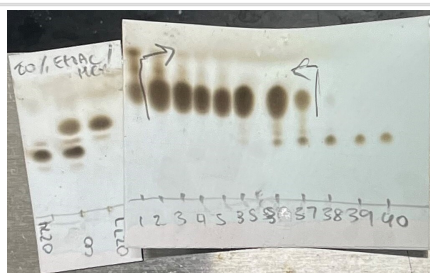
In-process GC after 1 h



In-process GC after 4.5 h

14.0 mL **Tetrahydrofurane** (0.7 volEquiv)

- added during **10 min**, keeping temp at 40°C.
- cooled solution to 25°C during 5 min.



Sample TLC image

Solvents: Toluene/EtOAc (1:1)

Detection: Sulfuric acid spray

Workup

The solution was washed with a mixture of

66.6 mL **Crushed ice** (3.33 volEquiv)

100 mL **Water** (5.00 volEquiv)

The organic phase was dried over

3.33 g **Sodium sulfate anhydrous** (0.167 wtEquiv)

- filtered at 0°C
- evaporated at 40°C / 15 mbar during 1 h
- dried at 40°C / 2 mbar for 1.5 h



A: 42.5 g Product (86.0% yield)

[MW: 168.19; EM: 168.08; C₉H₁₂O₃]



Analytics Summary.xlsx