

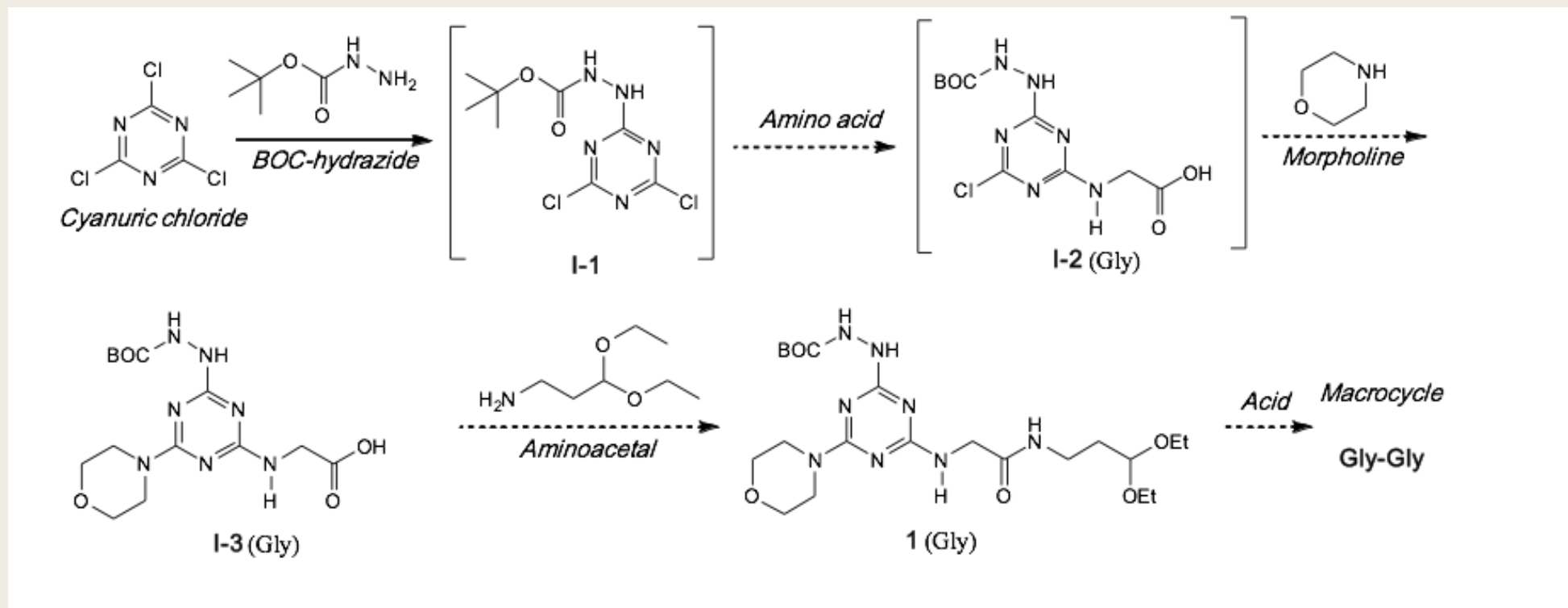


OPTIMIZING THE SYNTHESIS OF MACROCYCLES

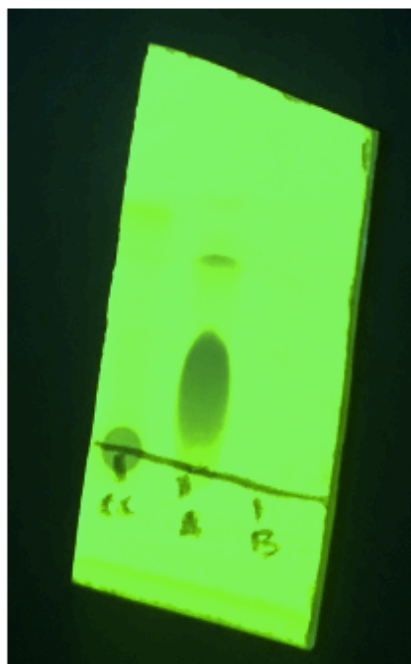
Isabella Aguiar



Overview



Reaction of BOC-Hydrazide and Cyanuric Chloride



SHORT WAVE

Solvent: 19/1 $\text{CH}_2\text{Cl}_2/\text{MeOH}$

Lanes:

- 4. CC
- 5. Reaction 1
- 6. BOC

Shows clean spot streak for BOC-CC product



NINHYDRIN

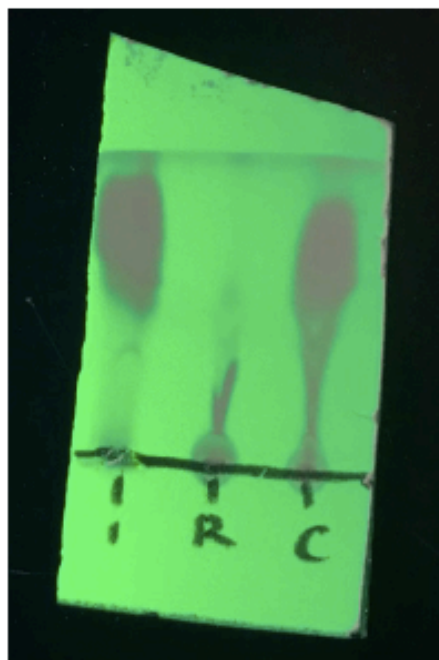
Solvent: 19/1 $\text{CH}_2\text{Cl}_2/\text{MeOH}$

Lanes:

- 1. CC
- 2. Reaction 1
- 3. BOC

Yellow streak displays the product

Addition of Glycine



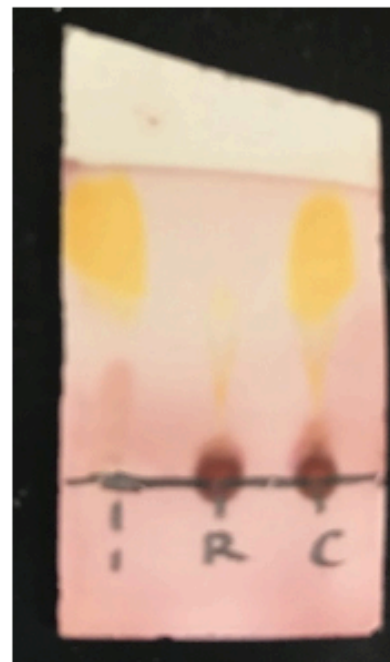
SHORT WAVE

Solvent: 9/1 $\text{CH}_2\text{Cl}_2/\text{MeOH}$

Lanes:

4. Reaction 1
5. Reaction 2
6. Cospot

Seems to be no yellow for the lane with reaction 2 so the reaction went to completion, not much byproduct.



NINHYDRIN

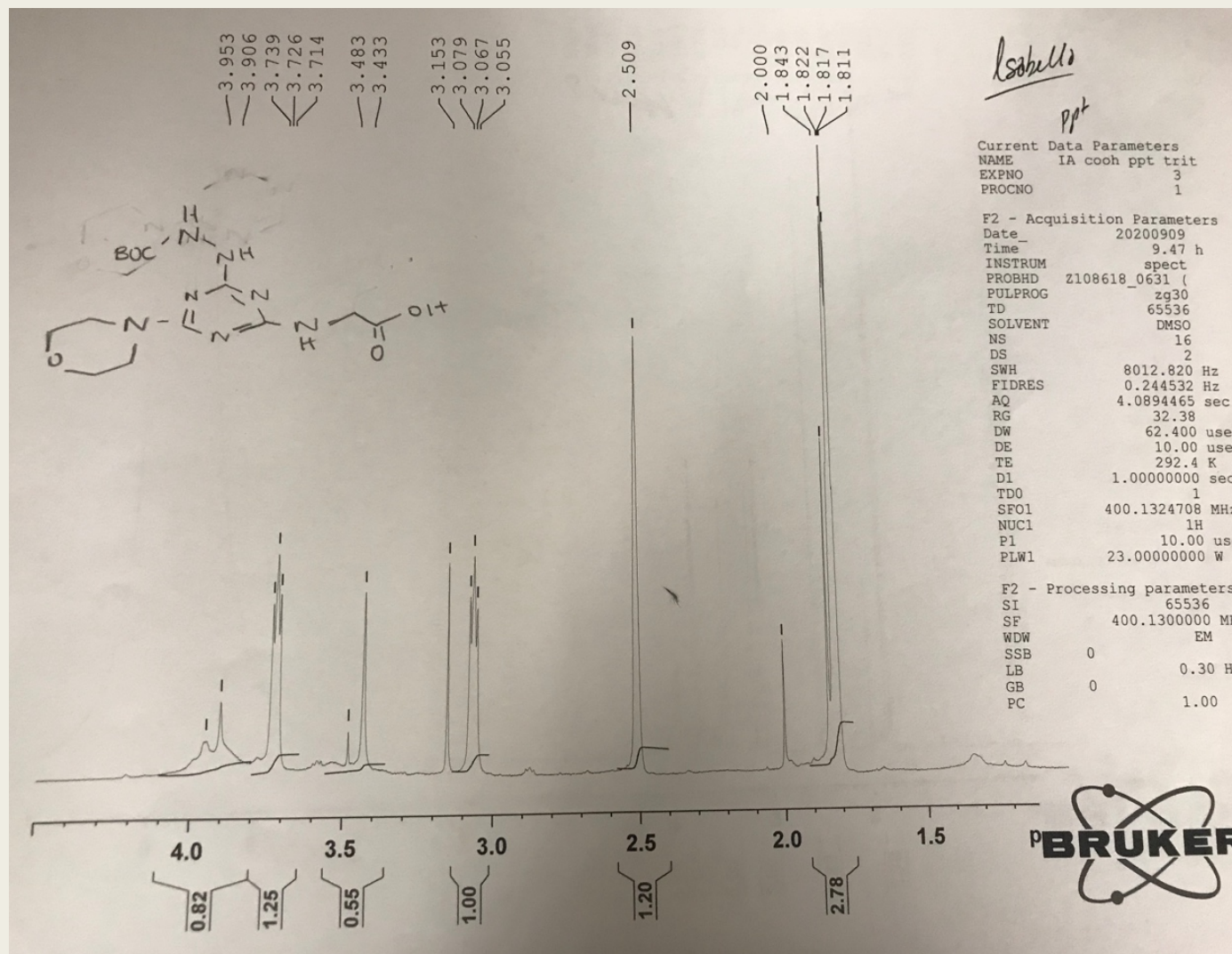
Solvent: 9/1 $\text{CH}_2\text{Cl}_2/\text{MeOH}$

Lanes:

1. Reaction 1
2. Reaction 2
3. Cospot

After staining it is apparent that there is minimal yellow appearing, demonstrating the reaction worked and went to completion.

Addition of Morpholine

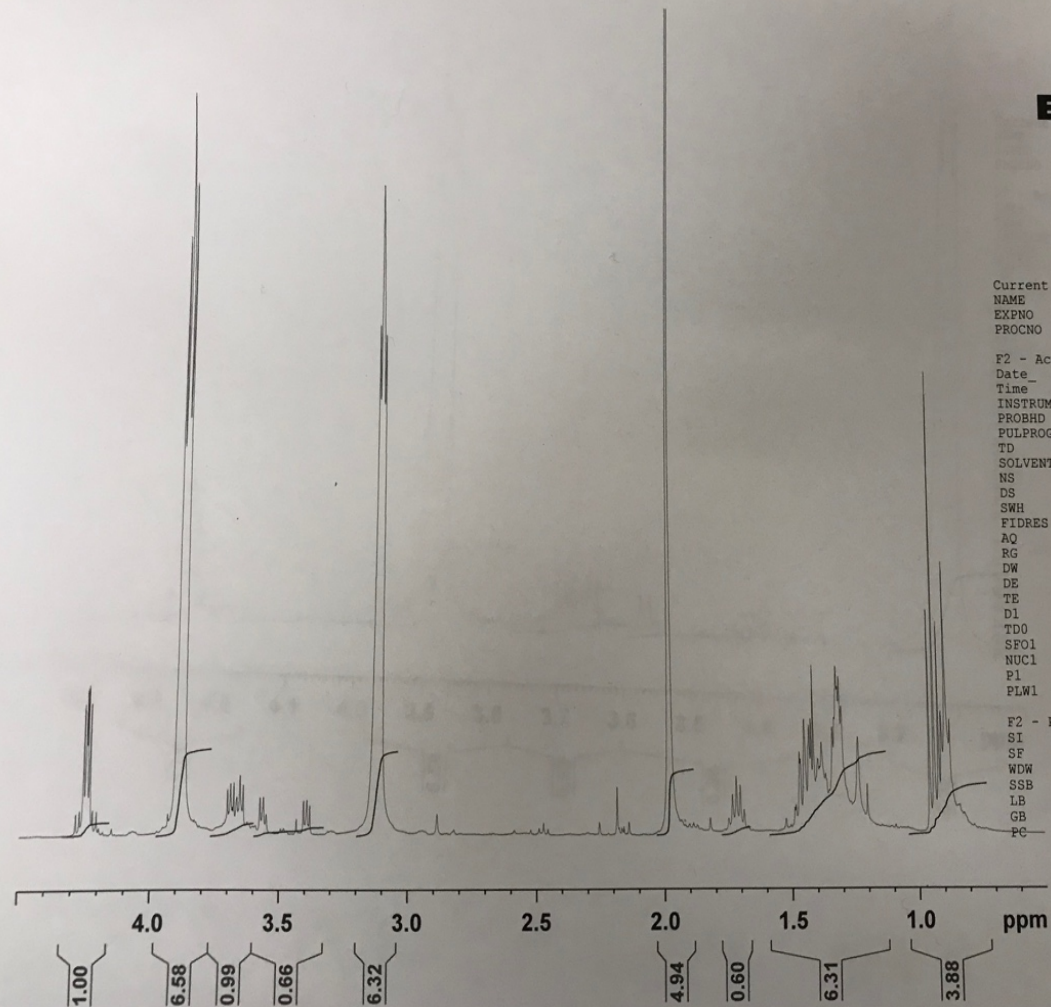


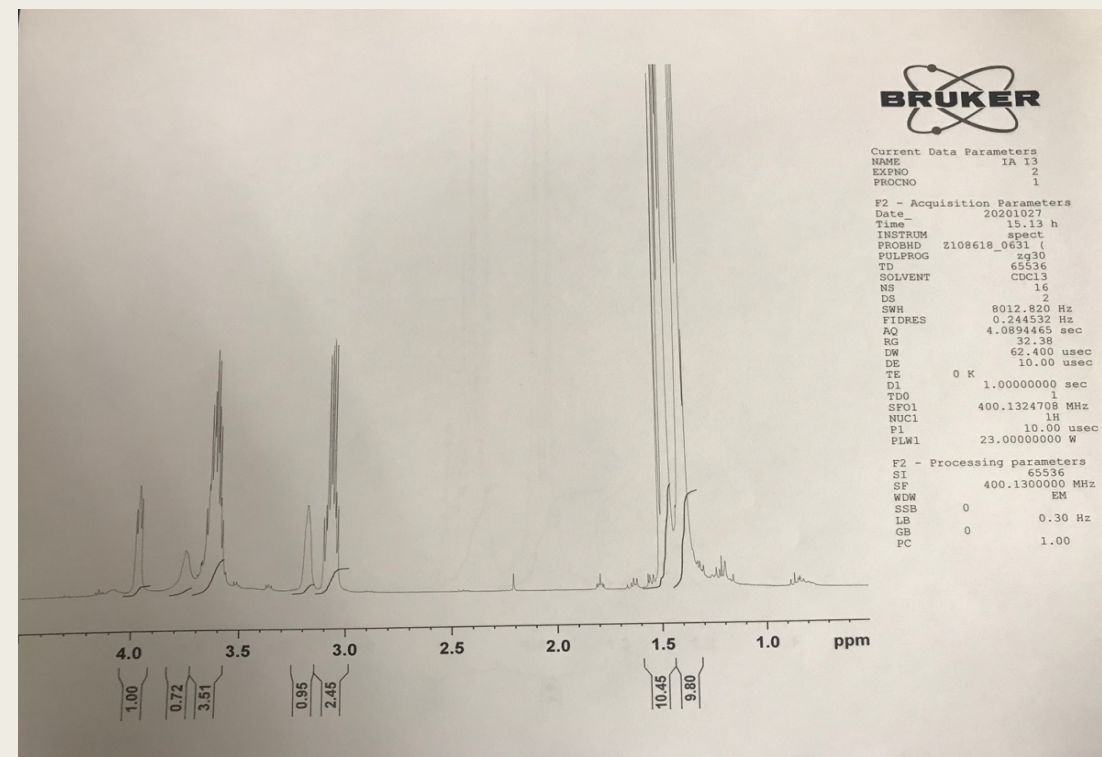
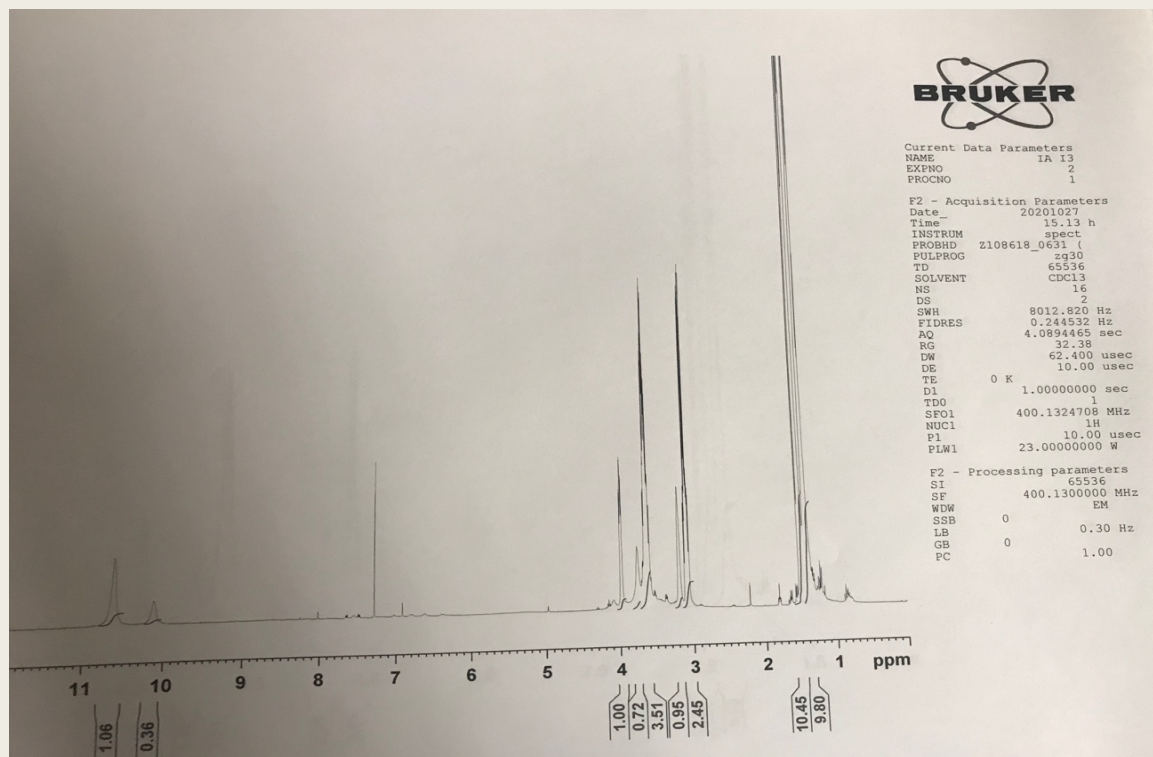


Current Data Parameters
NAME IA tritulant 9 sep 2020
EXPNO 1
PROCNO 1

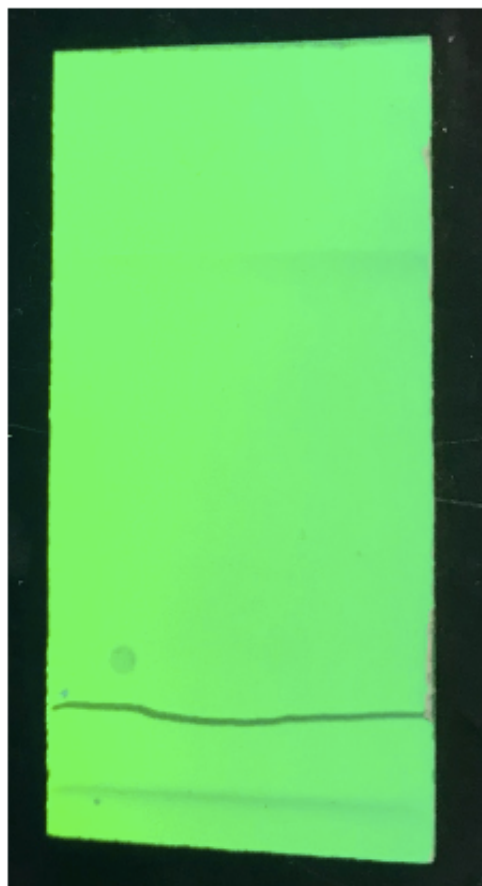
F2 - Acquisition Parameters
Date_ 20200909
Time 15.06 h
INSTRUM spect
PROBHD Z108618_0631 (
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8012.820 Hz
FIDRES 0.244532 Hz
AQ 4.0894465 sec
RG 32.38
DW 62.400 usec
DE 10.00 usec
TE 292.5 K
D1 1.00000000 sec
TD0 1
SFO1 400.1324708 MHz
NUC1 1H
P1 10.00 usec
PLW1 23.00000000 W

F2 - Processing parameters
SI 65536
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00





Purification



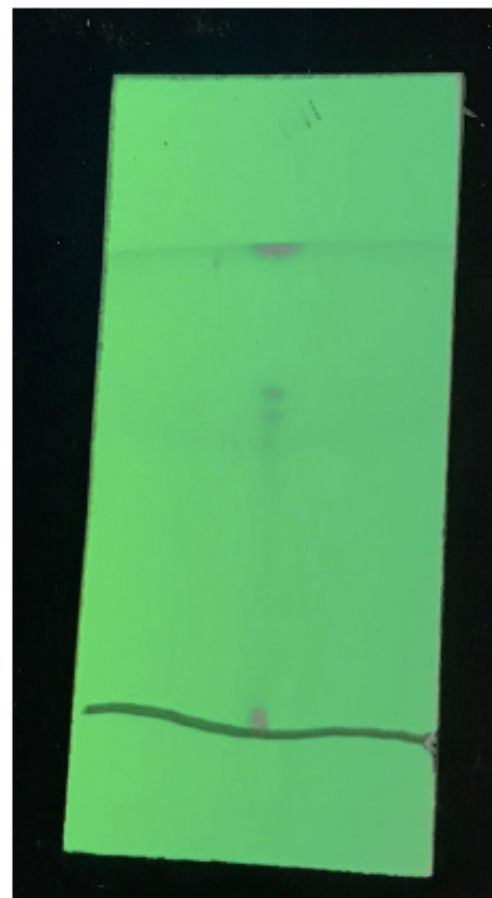
SHORT WAVE

Solvent: 19/1 $\text{CH}_2\text{Cl}_2/\text{MeOH}$

Lanes:

1. Organic Layer

There is no movement from the baseline, implies the product was all in the first fraction and impurities were removed.



SHORT WAVE

Solvent: 9/1 $\text{CH}_2\text{Cl}_2/\text{MeOH}$

Lanes:

1. Organic Layer

The organic layer was also ran in 9:1 and it appears to be a little streaky, some movement from the line and unsure of what is happening.

