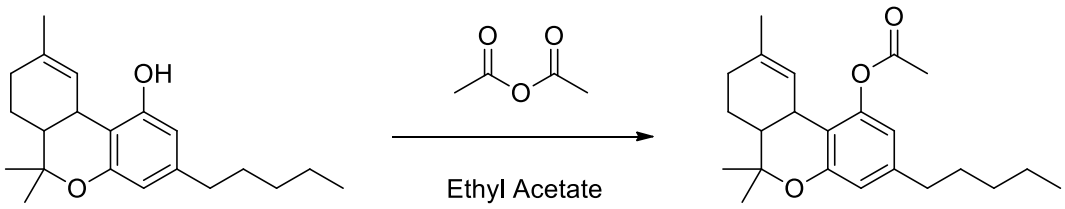


$D_9$ THC THC-OAc

## Materials needed:

5L Round Bottomed Flask

Teflon coated Stir Bar

THC distillate

Acetic Anhydride

https://www.sigmaaldrich.com/catalog/product/sial/242845?lang=en&region=US

Ethyl Acetate

https://www.sigmaaldrich.com/catalog/product/sigald/319902?lang=en&region=US

Rotoevaporator

Weigh Scale

TLC kit

## Common Websites to purchase chemicals:

Fisher Scientific, Millipore Sigma, Spectrum Chemicals, GFS Chemicals

## Process:

1. To a 5L Round bottomed flask equipped with a Teflon coated stir bar, THC distillate (1000 g) was dissolved in Ethyl Acetate.
2. Acetic Anhydride (649.37 g or 601.3 mL) was added to the reaction mixture.
3. The reaction stirred for 30 minutes.
4. TLC the reaction. Ensure that all THC has been consumed.

5. If the reaction is not complete, continue to add acetic anhydride (649.37 g or 601.3 mL) until TLC shows full consumption of the starting material.
6. Once the reaction is complete, remove the stir bar.
7. Place the reaction mixture into the rotoevaporator flask.
8. Evaporate all solvents. (You will know when this is done…it will not smell like vinegar).
9. Weight out the round bottomed flask and calculate the percent yield.
10. Store the product in a cool, dark space.
11. To verify the product, send off for Mass Spectrometry, or Liquid Chromatography—Mass Spectrometry.

## Important equations:

$$Theoretical\ Yield = \left(\frac{grams\ of\ THCa}{mass\ of\ THCa}\right)(Mass\ of\ product)$$

$$Percent\ Yield = \left(\frac{Actual\ Yield}{Theoretical\ Yield}\right)100\%$$

## Safety Data Sheets:

Acetic Anhydride
https://www.sigmaaldrich.com/Graphics/COfAInfo/SigmaSAPQM/SPEC/24/242845/242845-BULK_____SIAL_____.pdf

Ethyl Acetate
https://www.sigmaaldrich.com/Graphics/COfAInfo/SigmaSAPQM/SPEC/31/319902/319902-BULK_____SIGALD___.pdf