

## How to Perform a Recrystallization

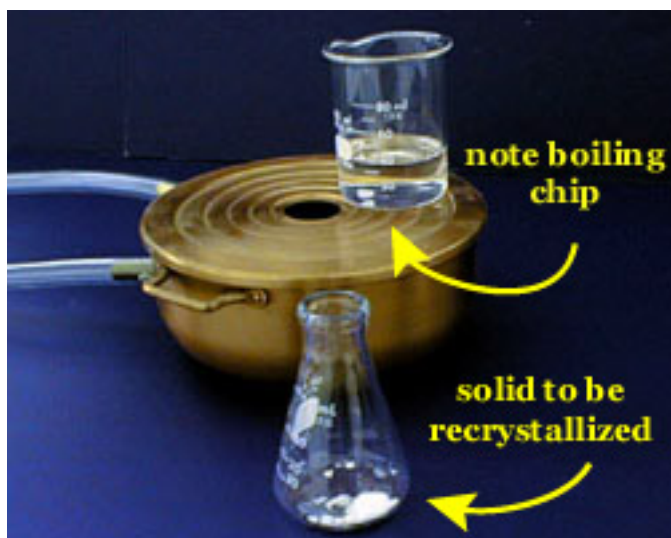
### ~Purification of all solid compounds isolated or synthesized~

\*Please note: You will be using a “warm plate” in place of the steam bath depicted in the pictures below. DO NOT turn your hot plate up to a hot temperature; it should be like a warm stove – hot plates will evaporate your solvent so rapidly that you can never dissolve your compound. When you dissolve your solid and let the resulting solution slowly cool to Room Temp, you should still have a SOLUTION – pure crystals floating in the solvent – the solvent should not be evaporated. If it is, then you still have impure crystals!

\*Recrystallizations must be performed very carefully: the hot solution must be cooled SLOWLY & UNDISTURBED in order to form pure solute crystals. If you do not let your solution cool undisturbed to Room Temperature BEFORE icing, your solution will cool so rapidly that all your impurities are trapped back in your crystals leaving you with your original impure compound!

### How To Do a Recrystallization

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Heat some solvent to boiling  
(remember to use a boiling chip)  
Place the solid to be  
recrystallized in a 50mL beaker  
or Erlenmeyer flask.



Pour a small amount of the hot solvent into the flask containing the solid. **\*Please note: both containers should be kept on the warm plate - you cannot dissolve your compound if you keep your flask on the cold lab countertop! Plus the cold countertop will facilitate crystallizing, not dissolving!**



Swirl the flask to dissolve the solid.



Place the flask on the warm plate to keep the solution warm.



If the solid is still not dissolved, add a tiny amount more solvent and swirl again.



When the solid is all in solution, set it on the bench top. Do not disturb it!



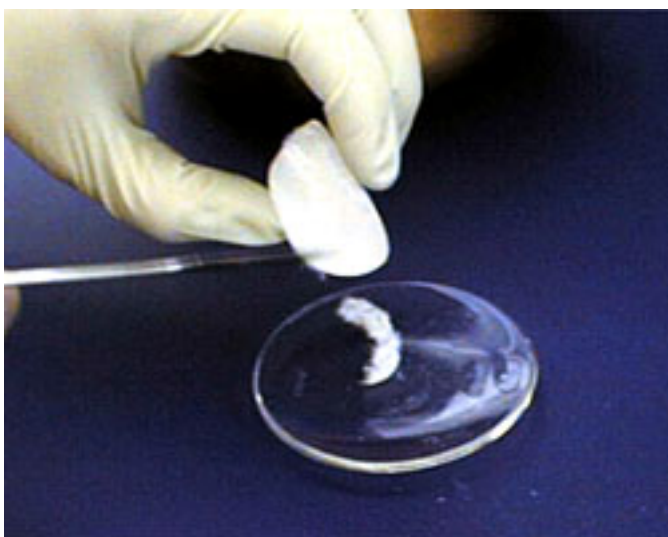
After a while, crystals should appear in the flask.



You can now place the flask in an ice bath to finish the crystallization process.



You are now ready to filter the solution to isolate the crystals.  
**\*Please note: Use your microkit vacuum filtration set-up to filter - you will not have to scrape off of filter paper as depicted in the pics, but rather just scrape off of the tiny white reusable filter plug that remains plugged in the plastic micro filter.**



After your crystals are filtered from the solution, put them on a watchglass.



Let the crystal finish drying on the watchglass.