

CHEM 332 - STUDY GUIDE

/Techniques/

Recrystallization - A method to purify solids

* Dissolve a solid in a solvent at elevated temperature, allowing crystals to form as the solution cools.

* This works because of the trend that solids tend to be more soluble in a hot solution than a cold one

* So if you are trying to recrystallize A from B, choose a solvent with the following properties:

- B is highly soluble in the solvent
- A is highly soluble in hot solvent but sparingly soluble in cold solvent

- Therefore, as the solvent cools, A will crystallize while B remains dissolved

* Sometimes hot filtration is necessary before crystallization to remove colored impurities.

