

## **Test Procedure for Rotoevaporation Use of Flaked Ice**

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*CAUTION: Do procedure in Chemical Fume Hood!*

Follow the SOP for general Rotoevaporation setup and procedure. This test procedure is to verify whether you can use flaked ice (“crushed ice”) rather than dry ice in your rotoevaporation setup with your particular solvent(s). It will also indicate how many ice traps you need with your particular solvent(s). This **MUST** be done with each different solvent or a change in temperature with the same solvent.

1. Ice the catch pot.

This **MUST** be done. It has been found that approximately 1/3 of the solvent goes past one trap on to the pump/drain when the catch pot is **NOT** iced.

2. Place ice and rock salt inside the “dry ice” trap.
3. Run your rotoevaporation and watch for solvent collection in the catch pot, and dry ice trap. Also watch for any moisture droplets forming at the outlet of the vacuum pump.
4. If you have **ANY** moisture at the outlet of the vacuum pump, you **MUST** add another ice trap.
5. While adding the additional trap, be sure and disconnect the inlet tubing to the vacuum pump and let it run to dry it out.
6. Add a side-arm flask “trap” between the dry ice trap and vacuum pump.
7. Place “trap” into an ice container to catch any additional solvent fumes carried past the first trap.
8. If moisture is gone from outlet of pump, connect everything and you’re ready to run your rotoevaporation again.
9. Watch for moisture droplets forming again at the outlet of the vacuum pump.
10. If you still have moisture (solvent) droplets forming at the outlet of the vacuum pump after icing the catch pot, and having two ice traps between the condenser and the vacuum pump, then you have no choice but you **MUST** use dry ice rather than flaked ice to make it cold enough to chill your particular solvent fumes.

Note: Solvents should be poured into proper bottles and labeled for waste collection.