

ACID WASHING GLASS BEADS FOR BEAD BEATER

Materials:

- 1) 0.5 mm glass beads (Biospec Products) 1-4 lbs
- 2) 1% Triton-X100
- 3) 95% EtOH
- 4) 6N HCL (Conc. is 12N)
- 5) 6N HNO₃ (Conc. is 15N)
- 6) Large glass beaker (at least 4x the volume of glass beads)
- 7) Glass Stirring rod

Procedure:

- 1) First make sure there is plenty of water in the distillation tank and make sure the deionized water feed is running. This washing goes through an enormous amount of distilled water so make sure there will be some left for others to use when your done!
- 2) Add the beads to the beaker and fill the beaker with ddH₂O. Add TritonX-100 to 1% and stir with the glass rod until the detergent is dissolved. Continue to stir intermitently for 10 more minutes. Carefully pour off the fluid and repeat the wash for another 10 min. Rinse 2X with ddH₂O. Note: for each of the following washes you should stir for at least 2 minutes before pouring off.
- 3) Wash 3-5 times with 95% EtOH (use the cheap stuff in the red can). Rinse 2X in ddH₂O.
- 4) Wash 2X with 6N HCl. Obviously you need to be careful with all the acid solutions in this procedure, wear gloves etc. Rinse once with ddH₂O.
- 5) Wash 2X with 6N HNO₃.

7) Rinse 3X in ddH₂O, then let it sit 5 min with stirring, repeat twice and then until the pH of the rinse is approximately the same as the ddH₂O from the tap (usually ~pH 6). You may want to rinse once with 10 mM Tris pH 7-8 to speed things up (but make sure the Tris is washed away before baking)

8) Drain as much of the fluid as possible from the beads and let them air-dry overnight. Cover the beaker with foil and bake at 350°C for 2-3 hrs. Store in the cold room.