Aug. 2001

Purifying Decane

A. Prepare Packing Material

1. Weigh out 100 g of grade 12 (28-200 mesh) silica into a 600-ml beaker.
2. Weigh out 200 g of chromatographic grade (80-325 mesh) alumina into a 600-ml beaker.
3. Place both beakers in oven overnight and heat at 200 degrees Celsius.

B. Prepare Column

1. Wash column in toluene followed by acetone to remove any contaminants from previous use. Also be sure to clean caps.
2. Rinse column in decane once the acetone is dry.
3. Fill the bottom screw cap with fiberglass to prevent escape of packing material.
4. Seal bottom of column and fill column with packing material. The order of the silica and alumina is not important. Column should be about ¾ full.

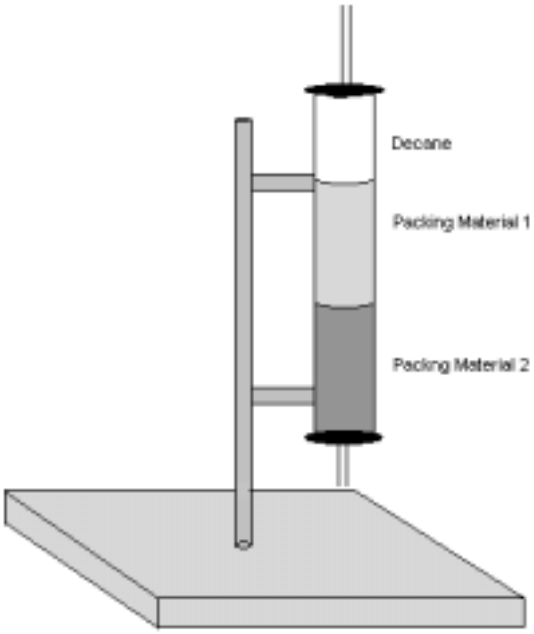
Note: Always fill the column in the hood to avoid breathing in fine alumina and silica particles.

C. Purification

1. Add decane to the remaining space at the top of the column.
2. Seal top of column and connect to nitrogen tank. Set the pressure between 20 and 30 psi and open valves on column to begin purification.
3. As liquid line approaches the top of the packing material, close both valves, open the top of the column, and refill with decane.

Note: Never allow top of packing material to contact the air after it has been wetted by decane

4. Collect the first 20 ml to flow through the column in a small beaker and discard.
5. Collect the remaining decane in the original bottle.



Purification Column