

## Additional Notes: Synthesis of 4-Methylcyclohexene

### Assigned Reading

- Pavia 4<sup>th</sup> edition, Experiment 25, pages 211 to 217 (we will use the microscale procedure)
- Technique 12, Sections 12.5 & 12.9;

### Prelab Assignment:

Your prelab should include: Date, Introduction, Haz-Mat, Apparatus, Separation Scheme, Chemical Equation, Reactant Table, and Procedures.

### Procedure

We will be following the microscale procedure only. The apparatus is similar to the one shown in Figure 14.5, page 708, except that two (2) three-fingered clamps should be used to support the apparatus (one on the Hickman head and one on the water condenser). As usual, we will use a sand-bath as a heat source instead of an aluminum block.

### Separation Scheme

A separation scheme is a schematic block diagram used to trace the chemical changes and separations occurring during a synthesis. It is a useful device to keep track of the major changes and you should refer to it from time-to-time during the course of the experiment so that you don't get lost in the details. Your instructor will usually supply you with a separation scheme, but often part of the scheme will be left for you to complete. The compounds shown within the blocks should reflect the chemical and physical changes occurring for the reactants and products. Not shown, are the structures of possible unwanted side products (there are possible side products produced in this reaction).

