

## Additional Materials:

- Hydrogen supply assembly: Balloon, syringe adapter, long needle (gauge 22), small rubber stopper.
- Hydrogen vent: 1 mL plastic syringe (shell with plunger removed) short needle (gauge 24).

## Procedure:

- Place 1.0 mL of methyl oleate into a pre weighed 10 mL round bottom flask and reweigh. Add 6.0 mL of methanol, a magnetic stirrer as well as 30 mg of 10% Pd/C catalyst in small portions and then cap the vial with a new rubber septum. Install the vent needle by piercing the septum making sure that the tip remains above the methanol surface. Heat the flask in a water bath at 40 °C and control the temperature within plus or minus 2 °C (using chips of ice if required). Remove the rubber stopper from the needle of the hydrogen supply assembly and install the assembly by piercing the septum, making sure the tip of the syringe reaches well below the surface of the reaction mass. Add 3 to 5 drops of methanol to the 1 mL vent syringe shell and verify positive hydrogen flow.
- Start the clock and run the reaction for 30 to 45 minutes.
- The flask should now contain visible solid white residue. Otherwise open the 10 mL vial and check the reaction mass for product using lab hack 3.
- Continue the experiment at text instruction "Stopping the Reaction".

