

ReadMe Notes on Data Table 1 (table on next page)

1. The first day you must get through runs 1A/1B through 8A/8B. (A& B are a duplicate set).
2. To prepare to run a set: setup two cuvettes (A&B) at the same time with the EtOH test solution and add the 250 μL of NAD. Put the A cuvette in the cell holder and check that the stirbar is rotating before adding the 250 μL of ADH which will initiate the reaction run. Repeat for the B cuvette.
3. If the reaction rates for duplicate runs (e.g., run 1A & run 1B) generated by the program don't agree within 5% of each other, try another run with the same EtOH concentration. If you are having problems achieving this precision, check with one of the instructors.
4. For the Kinetics program, input a 20-s delay time and a 30-s measurement time except for runs 8A/8B use a 10 s delay and a 30-s measurement time. Use a 1000ms measurement interval.
5. Be diligent and set the SCM gain as given in the Table as it changes for different runs. Also enter this value in the Kinetics program. Double check that these are correct.
6. Table 1 is posted on the course supplemental page in Excel. Make a local copy and fill it in as you proceed through the measurements. Construct the calibration curve while you are working.
7. Note that 2.0 mL of the test solution yields a final cuvette [EtOH] of $2.0/2.5 = 0.8 \times$ the test solution concentration (i.e., the total volume in the cuvette is 2.5 mL).
8. The Beer Sample test solution is the solution after the 2nd dilution with buffer indicated in section IIC.