For a review of cyclic voltammetry, see: <http://en.wikipedia.org/wiki/Cyclic_voltammetry>

A CV experiment gives information about HOMO and LUMO energies as well as the chemical stability of species made by oxidizing or reducing a compound.

**Using the BAS Epsilon Electroanalyzer**

To take a cyclic voltatmmogram:

Turn on computer.

Turn on Epsilon (switch is in back, lower left).

Run EpsiolonEC-2000 program.

Set up voltammetry cell as instructed by your instructor.

Attach electrode leads:

White = Reference (generally an electrode that was stored in a solution)

Red = Auxiliary (generally an electrode with a coiled wire at the end)

Black = Working (generally an electrode with a small “button” surface showing)

Choose Experiment/Select New Experiment/Cyclic Voltammetry(CV); Select

Parameters: For starters use the following:

Initial Potential = 0 # Segments = 2

Switching Potential = 1600 Scan Rate = 100

Switching Potential 2 = blank Quite Time = 2 seconds

Final Potential = 0 Full Scale = 100 uA

Be sure all the electrodes are submersed.

Be sure you added electrolyte to your solution.

Press RUN

When the scan has completed, File/SAVE.

To make an Excel usable file: File/Convert to Text file:

This does not convert the “active” window file. Instead you must select a \*.CVO file from those saved and choose Convert. The default parameters work fine and give you a comma delimited file.