Nicolet 6700 Procedure:

Open: OMNIC

Got to File and Open Configuration. Open "MCF Configuration".

This is the standard MCF Configuration:
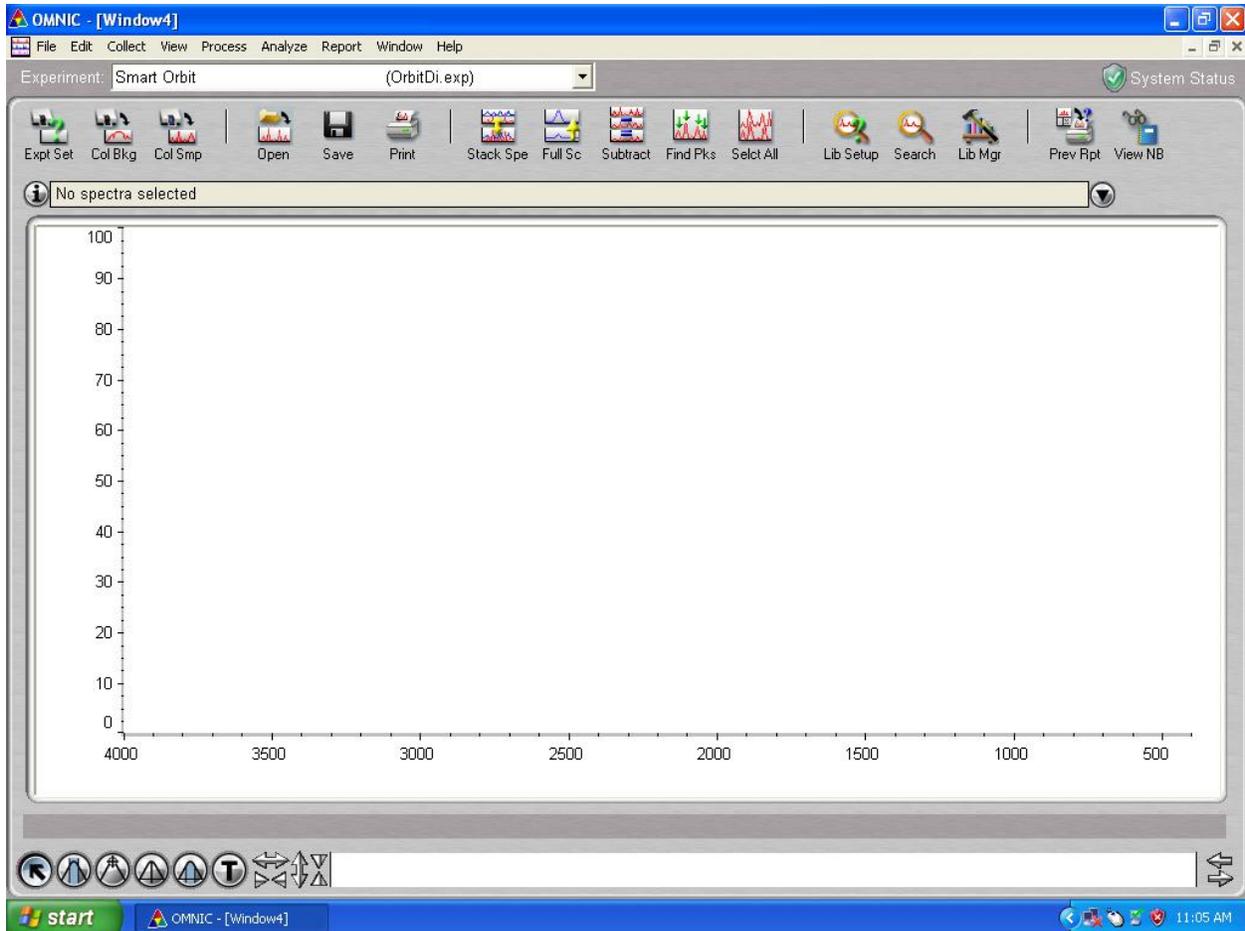
Experimental Setup

Collect: Experiment Setup

Bench: Wait until red line pops up and the instrument scan button starts blinking.

The figure below shows the standard settings for use with the Smart Orbit ATR attachment.
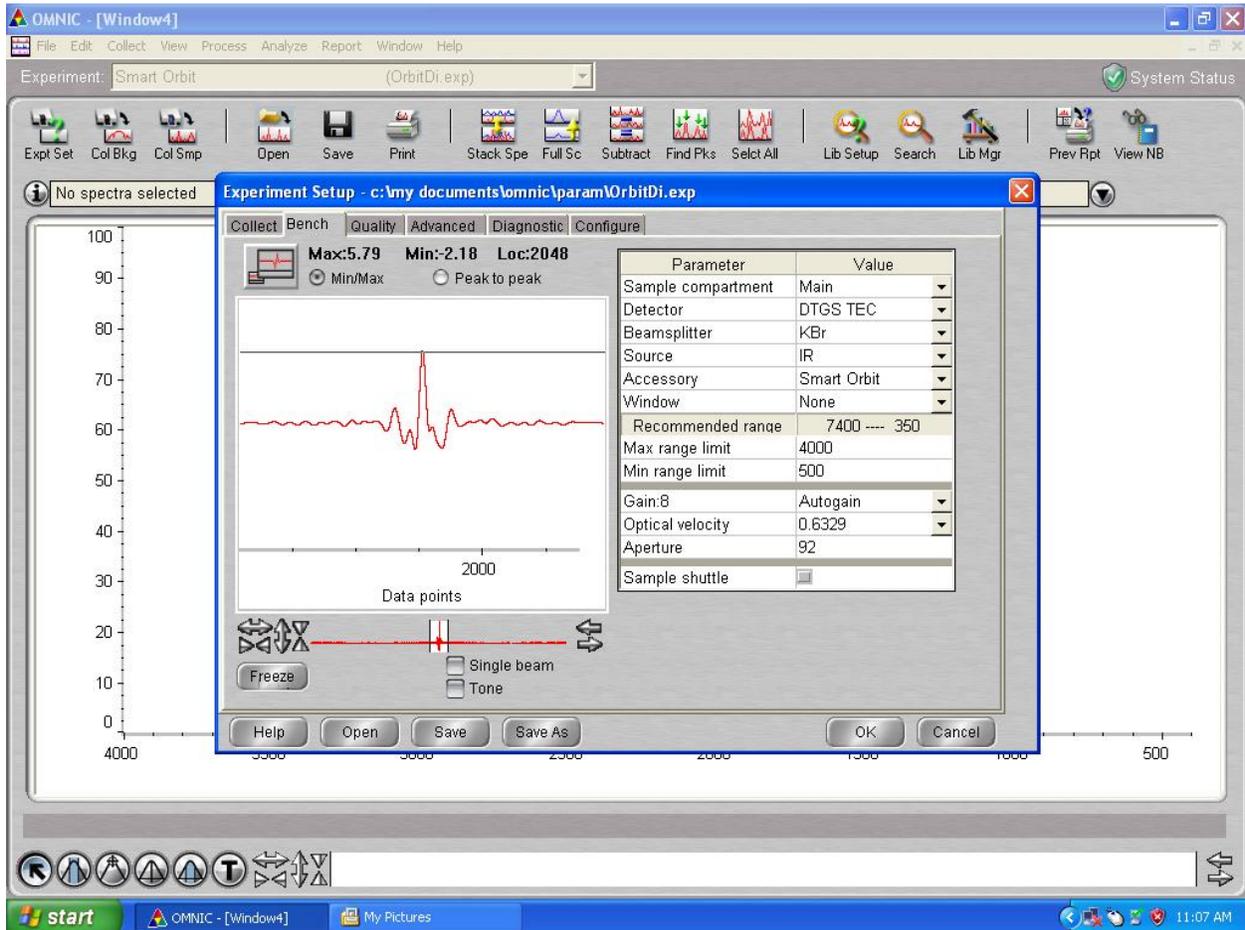
Under the experiment tab:
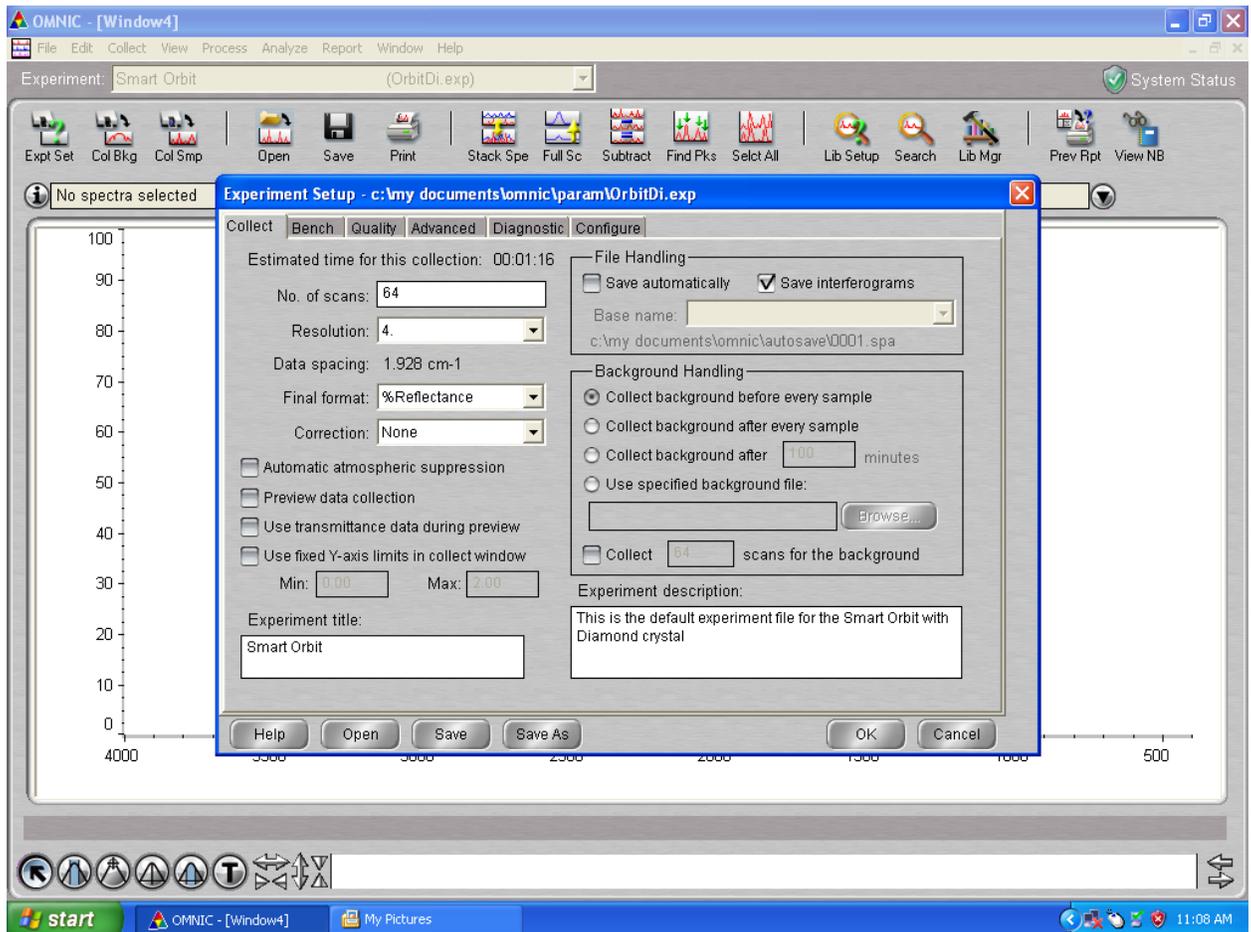
Defaults: Collect Background before every sample, number of scans is standard at 64 with a resolution of 4.

Close Experiment setup.

Data Collection

Click Collect Sample "Col Smp" button: Enter Sample Identification

The system will prompt for a background, say OK. Wait for the background to collect.
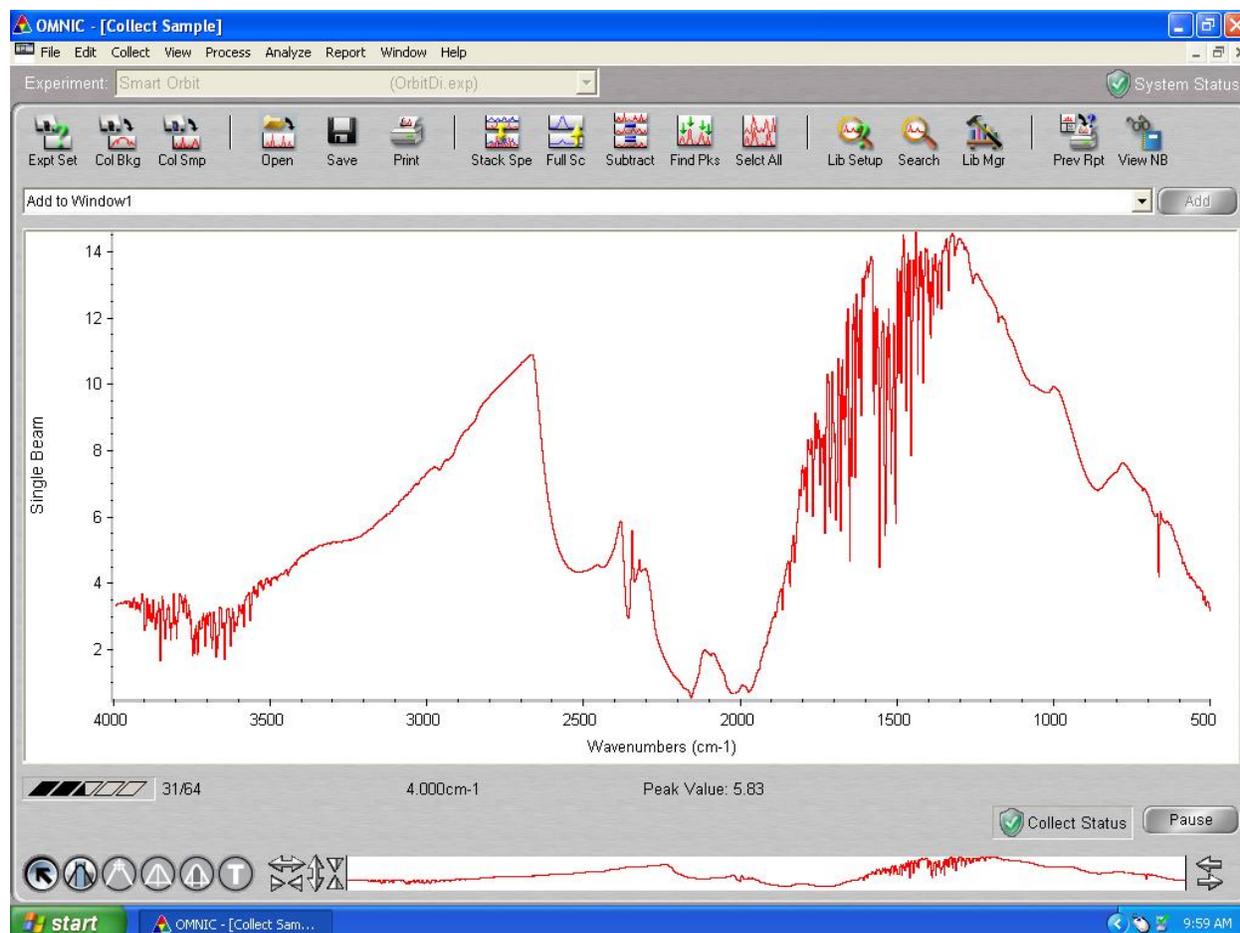
When the system prompts you to introduce the sample, place the sample on the diamond face and lower the upper clamp by turning the black knurled nob until the handle clicks. Click OK to start data collection.

Wait until sample collection stops, it will ask you if you would like to add it to a window. Click Yes/OK.

File: Save As and create a folder for yourself under Spectra and save the spectrum in your folder.

Analysis:

Control T to put the spectrum in Transmission units (if preferred).

Control K to find peaks.

Place the line on the spectrum where you would like the system to label the peaks. Adjust sensitivity upward or downward if there are too few or too many peaks labelled.

Replace spectrum in window.

Open Library Setup: Check to see if libraries are loaded. If none are loaded, select and add: "All condensed phase MAC"

Search Menu: Choose use whole spectral range.

Click Search: You will be presented with several possible compounds with a Match Index. Match index values of >90 are considered a good match. Less than this and the sample may be a mixture or not in the database.