# DCIF FTIR OPERATING INSTRUCTIONS
## PERKIN-ELMER MODEL 2000

**Specifications**: Range 7800 $cm^{-1}$ to 370 $cm^{-1}$, Resolution 0.25 $cm^{-1}$ to 64 $cm^{-1}$

Note: the instrument body, sample chamber and detector chamber are constantly purged with nitrogen. Do not turn off the supply of nitrogen. See attached sheet about the danger of "fake peaks."

Click the icon to open the Spectrum V. 2.00 software.

1. To check and/or change the background parameters:
   Select **[Instrument]> [Scan Background]** (from the pulldown menu)
   Change the appropriate parameters (e.g., single beam, filename=scanbsgl.sp, start=4000, end=400, 1 scan, 4 $cm^{-1}$ resolution, interval=1, etc.)
   Click **OK**. (Overwrite old background.)
   [or click the **BkGrd** button for default settings]
   NOTE: If ADC overload occurs, reinitialize the FTIR by selecting…Setup > Instrument > [Init]

2. To check and/or change the scan parameters (place sample in spectrometer):
   Select **[Instrument]> [Scan Sample]** (from the pulldown menu)
   Change the appropriate parameters (ratio, filename=scan_rto.sp, start=4000, end=400, 1 scan, 4 $cm^{-1}$ resolution, interval = 1 $cm^{-1}$, etc.)
   Click **OK**. (Overwrite old scan.)
   [or click the **Scan** button for default settings]

3. Click the **Peaks** button.
   Click the **Peaks** button again to turn off the peak picking.
   Adjust the threshold by *right-clicking* the **Peaks** button. (Click OK.)
   Click the **Peaks** button again. (Repeat as necessary.)
   Select and drag the peak labels or delete unwanted labels.

4. Select a region to expand…
   *Left-click and drag* to select region to be expanded.
   Then *double-click* the region to be expanded.

5. Save the file in your group's directory (**Save As…**)
   You can also save in ASCII format and copy to 3.5" floppy or USB stick.

6. Click the **Text** button to add titles and annotations.

7. Print the file by clicking the **Print** button.

8. Mathematically manipulate spectra using the **Tools** button.
   Select the **Spectral Calculator** button.
   Select a spectum (lower left corner) to manipulate.
   Load other saved files to manipulate.

- Use [File]>[New] to collect a second sample

Close the Spectrum V. 2.00 software when finished and Logout.