

FTIR Instructions

1. Sign on the notebook.
2. Turn on the computer and sign in.
3. Tune on the power of the instrument, wait until the initialization succeeded. In the small panel of instrument “Perkin Elmer Spectrum 100 Series” will be shown if the initialization succeeded, otherwise come to see Jianhua first.
4. Clean the sample holder by acetone with Kimwipes, make sure not to splash the acetone on the instrument.
5. Launch the “spectrum” software on the desktop with User Name of “Analyst” and Password “analyst”, then select “Spectrum 100”
6. Select “Instrument setup” button, “Scan and Instrument Setup” dialog will pop up, input your sample name, scan range (the range limit is $650\text{-}4500\text{ cm}^{-1}$), and scan number.
7. Click the “back ground” button to collect back group information of the sample holder.
8. Place you sample on the sample holder. If your sample is liquid, you can go ahead and press “Apply” and then “Start” to collect the spectrum. If your sample is solid, click the “monitor” button on the “Scan and Instrument Setup” dialog first, and then lower down the pressure arm, through the “monitor” dialog to monitor the total pressure applied to the sample, set the “Force Gauge” to be around 80, then click “finish”. Press “Apply” and then “Start” to collect the spectrum.
9. Data processing:
Peak label: Select “view” from the menu, and then “label peaks”. If you want to label a special peak, “view”-----“cursor”-----“vertical continuous”, then move the cursor to the peak you want, and then “view”-----“label cursor”.
Data saving: you can save your data as ASCII by “File”-----“Save as”, the select “ASCII (*. ASC) as the save as type.
- 10. Turn off the software, log off the computer, and switch off the instrument. Make sure to clean the sample holder completely before you leave**

FTIR Instrument Policy

1. The Instrument is managed by Dr. Qun (Treen) Huo, if you are from Dr. Lei Zhai, Dr. J. Manuel Perez, and Dr. Swadeshmukul Santra’s group, you can use this instrument directly, otherwise come to see Dr. Qun (Treen) Huo first.
2. You must receive usage training from Dr. Jianhua Zou in order to use this instrument. If you have not done so previously, please contact Dr. Zou for this training.
3. Use the instrument properly as described in the FITR SOP, if you find something wrong with the instrument, please inform Dr. Jianhua Zou immediately. Please do not use the instrument before the problem is solved.
4. No corrosive chemical, such as strong acid and base, is allowed to be placed on the sample holder. The corrosive sample will do permanent damage to the sample holder, and you will response for the total cost of the repair.
5. Clean the sample holder and take away your samples and trash after each time usage. Failure to do that will lead to your privilege of using the instrument to be suspended.