

FTIR Hints:

1. DTGS detector scan rate should be ≤ 0.6329 if uncooled.
2. MCT can scan as fast as 1.8988,
3. Gain of detector should be set so for the interferogram the peak to peak reading is $\sim 10\text{ V p to p}$
4. In most cases you should scan forward and back and 2 sided
5. Quick
6. Checks of Instrument:
 - a. **DTGS** detector. With nothing in beam path, using the DTGS detector, scan rate of 0.4747, aperture of 100% , and gain of 1, you should see a interferogram peak of about +5 and min of -3 or a max to min of about 8V.
 - b. **MCT** detector. With nothing in beam path, using the MCT detector cool (i.e. LN2 in detector), scan rate of 1.8988, aperture of 18% , and gain of 1, you should see a interferogram peak of about +7.4 and min of -6 or a max to min of about 13.4V.
 - c. **ATR** accessory. Run background with nothing in the beam. Using the same conditions (mirror velocity, aperture, detector, etc) run a “sample” spectra with only the ATR in the beam and no sample. The throughput should be 30% for the diamond Smart ATR at 1000 cm^{-1} , and Seagull at 2000 cm^{-1} . For the Horizon and Praying Mantis it should be 24 and 40% at 2000 cm^{-1} .