

Ap/Ad Sample Readings – Lambda 18 Spec

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- Open Lambda18 program and wait for the computer to initialize. If there are error messages regarding communication between the spec and computer reboot the computer with the spec on. Once you have done this turn on spec – do this all about ½ hour before readings
- Program window should open with the message “*instrument ready*” in lower left hand corner
- If the spec has initialized correctly the Abscissa reading before you start will read ~ 650.2. If it read higher (670) then this is a symptom of the UV lamp starting to go and the self calibration not working well.
- Go to the **MSC** tab and open the **KNP** program (or whatever you have named the methods file as)
- Go to the **SAMPLE** tab and enter file name as julian date and number of spec reading—e.g. 0140001 where 0001 is the first scan to be read and 014 is the julian date.
 - On the same tab enter the sample number (the consecutive number from hard copy data sheets), highlight column and fill down.
- Hit the “*set up*” button

Running samples

- Place an unfiltered blank (GFF filter moistened with nanopure water) on the back of the spec
- Place a filtered blank on the front
- Hit “*start*”—this is a baseline reading and it will take about 4 minutes
- A pop up window will come up that will say “*enter sample # xxx*”, make sure that the number corresponds with the number on the log sheets
- Scan the same filtered blank 3 times, turning each time and record then...
- Scan the same sample 2 times and turning each time
- Scan an FB between each sample
- Repeat the above two steps until finished
- At the end of the samples scan the FB three more times
- When you are done with the last three FB readings, hit “cancel” on the pop up window to cancel the method.
- Exit program, upon exiting the program will ask you if you want to replace certain files...hit OK

Always be sure to check that the UB is moist as well as your sample discs, when necessary remove from spec and rewet

Data Management

- Under windows explorer select correct folder (ie. **UVWinlab\Data\016\LMG0801**)
- Here you will find a master file with the file name ##### (julian date and starting scan number), along with every scan that you have done so far in both a 'sp' (spectral file—use this to call up the scan image again in the UVwinlabs software) and an 'rls' (which we will convert to an excel format).
- Create a folder here with the julian date of the reading and in that folder drag all these files.

Converting Files

- Once you have folders with the “sp” and “rls” folder for each scan in an appropriately named folder, open the rls files in Excel, and save the file as an excel folder. (Initially when we were saving the files we also inserted 9 rows and then added the spectrum name/scan number to cell B2 ... you may or may not choose to do this, but it was to keep things consistent. In the beginning the auto save was doing this to the files)
- Now you have 3 files per scan done...create and “excelfile” folder and a “:specfile folder” and drag and drop appropriately

Blanks

- Filter the AP logs to have only the blank (FB) reads
- Open up all the excel files that are for FB in a particular folder
- Create a new excel file named “#####blanks” where the ##s are the same as before, julian date and scan number (this way we know what blanks belong with what folders). Copy the blank scans (anywhere from 3-12 or more for a particular folder) and average them all so that now there is one average blank value for the scans done and saved in the corresponding folder