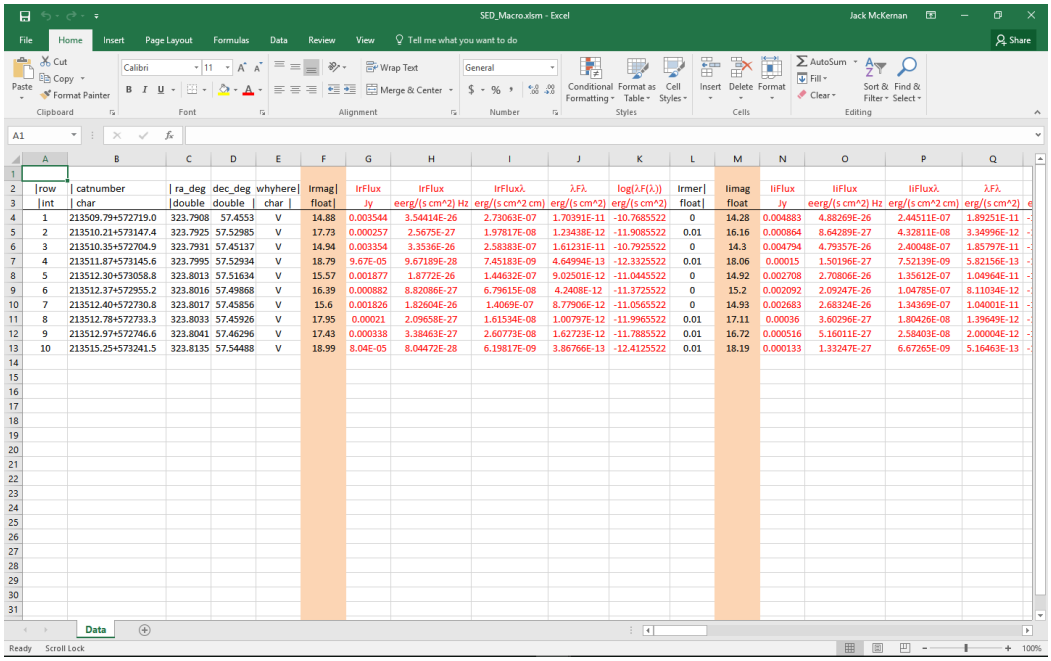
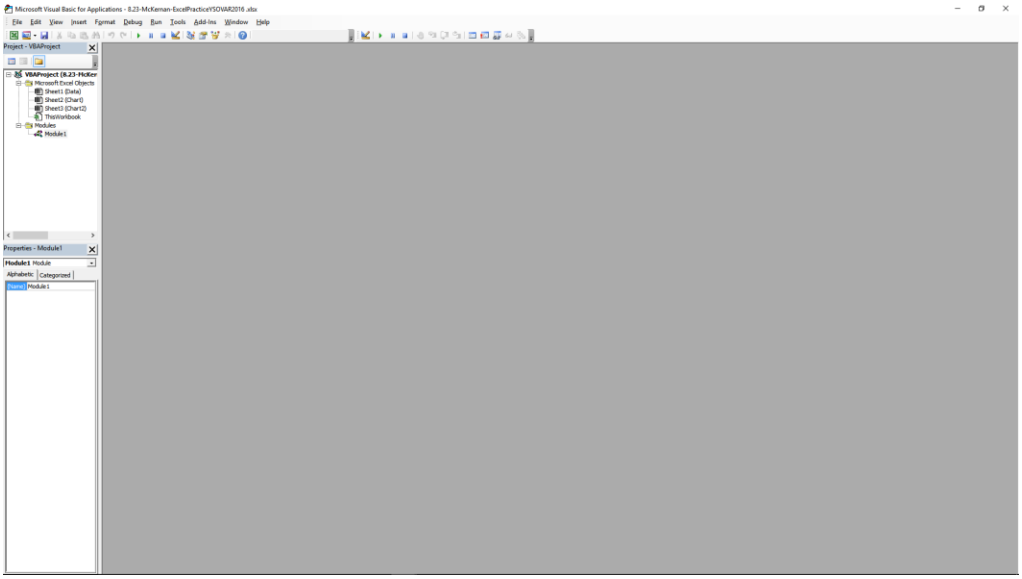
**Instructions for using the CreateSED macro -**

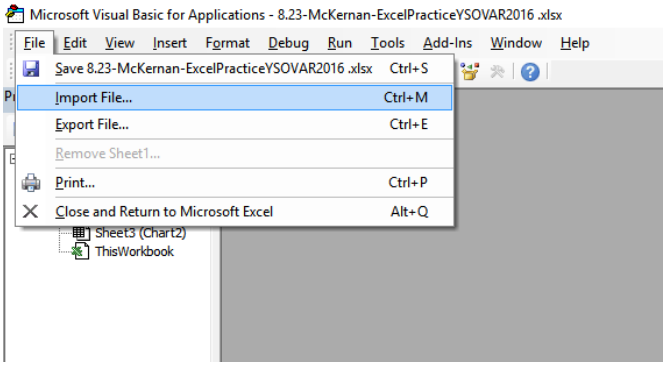
1. Open the data sheet in which you want to create the SED.

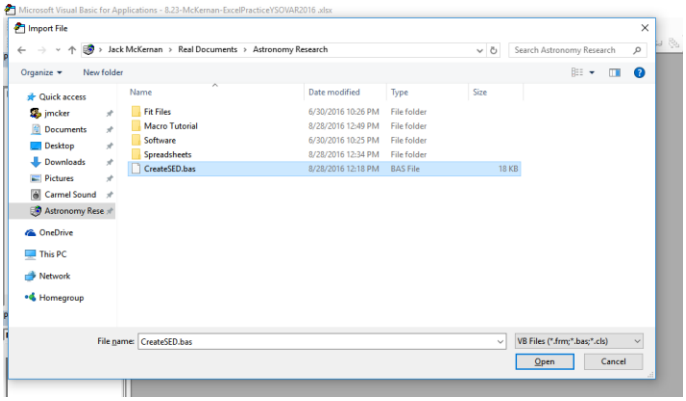


2. Press *Alt – F11* on Windows or *Option—F11* on Mac to open the VBA editor window.



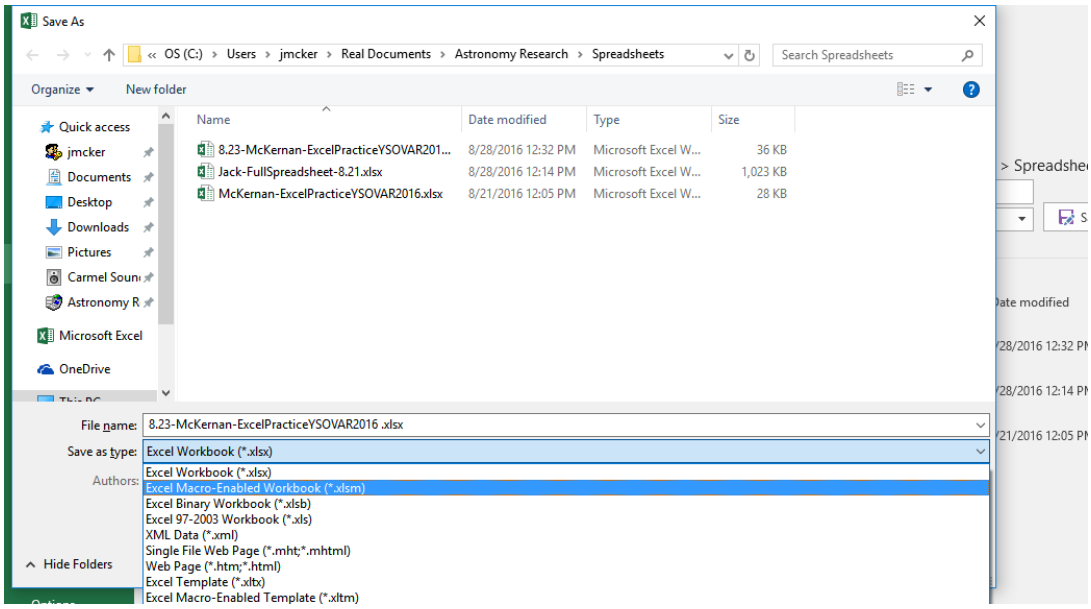
3. Select *File—Import File…* and navigate to the file that you downloaded called “CreateSED_v1.x.bas”.



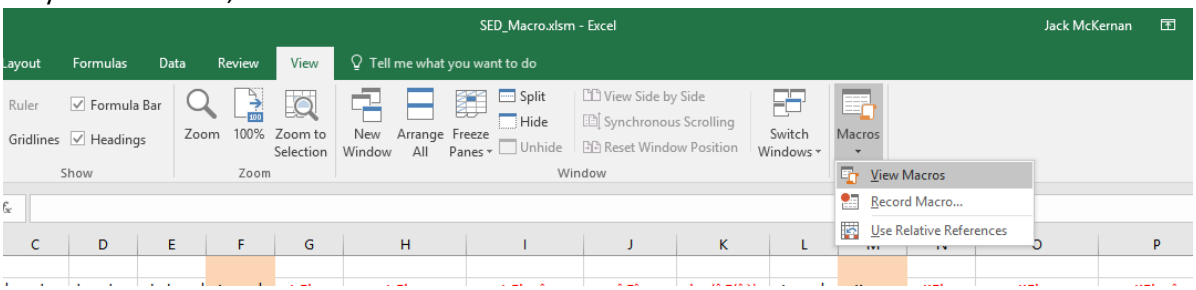




4. Select “CreateSED_v1.x.bas” and click *Open*. The VBA screen should remain the same and nothing should happen.

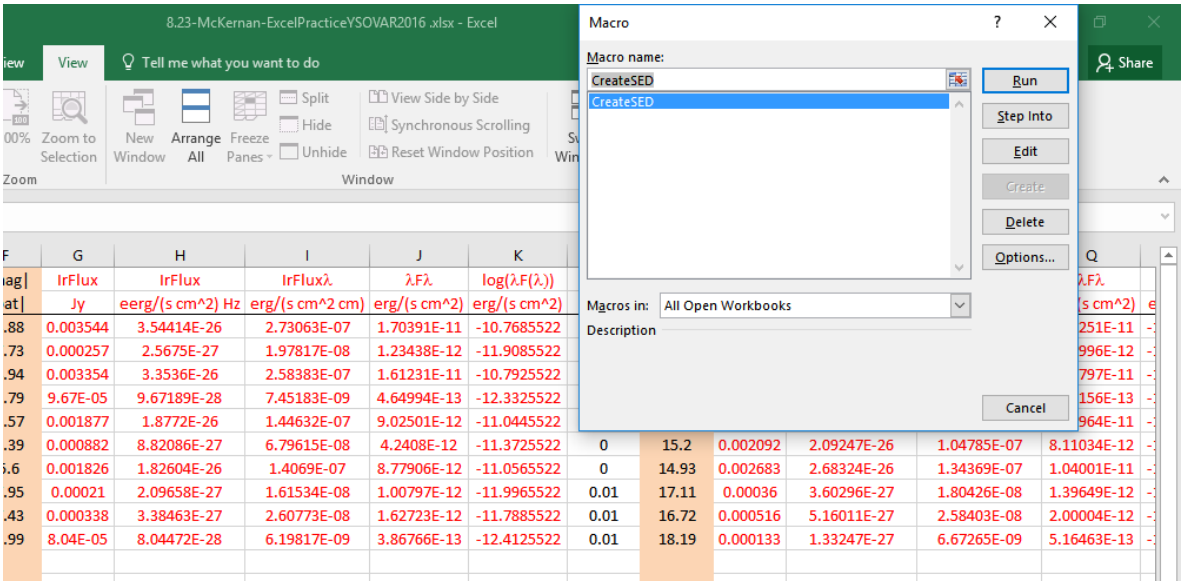
5. Close out of VBA and return to the spreadsheet.
6. **Changing the title of the sheet that all of your data is stored in to a single word—"Data" is always simple—is helpful now and prevents errors later.**
7. **To save the sheet with the added macro, you must *File—Save As* and select a macro enabled workbook with the extension *.xlsm* from the *Save As Type* menu.**



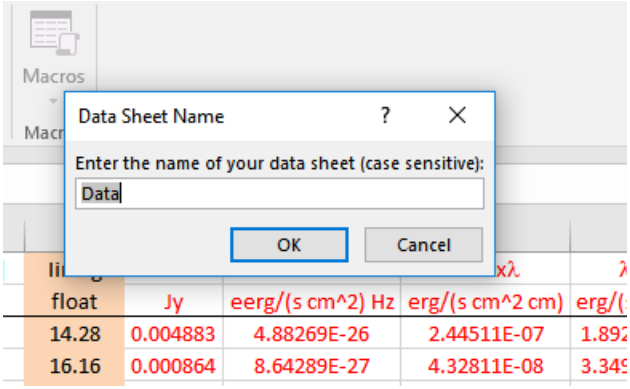

8. Once you have saved, select *Macros—View Macros* under the *View* tab.



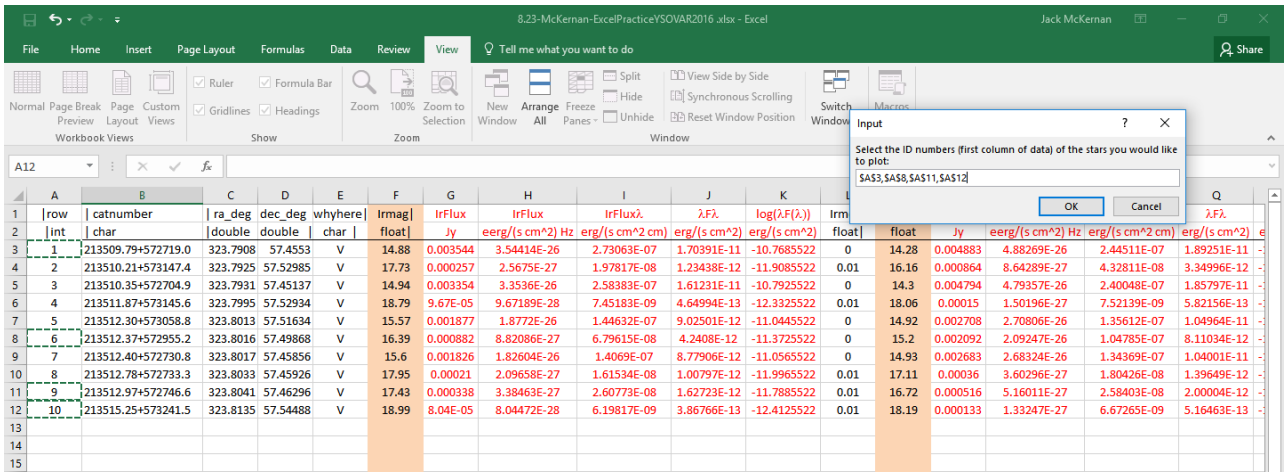

9. In the resulting dialog box, select "CreateSED" and click *Run*.



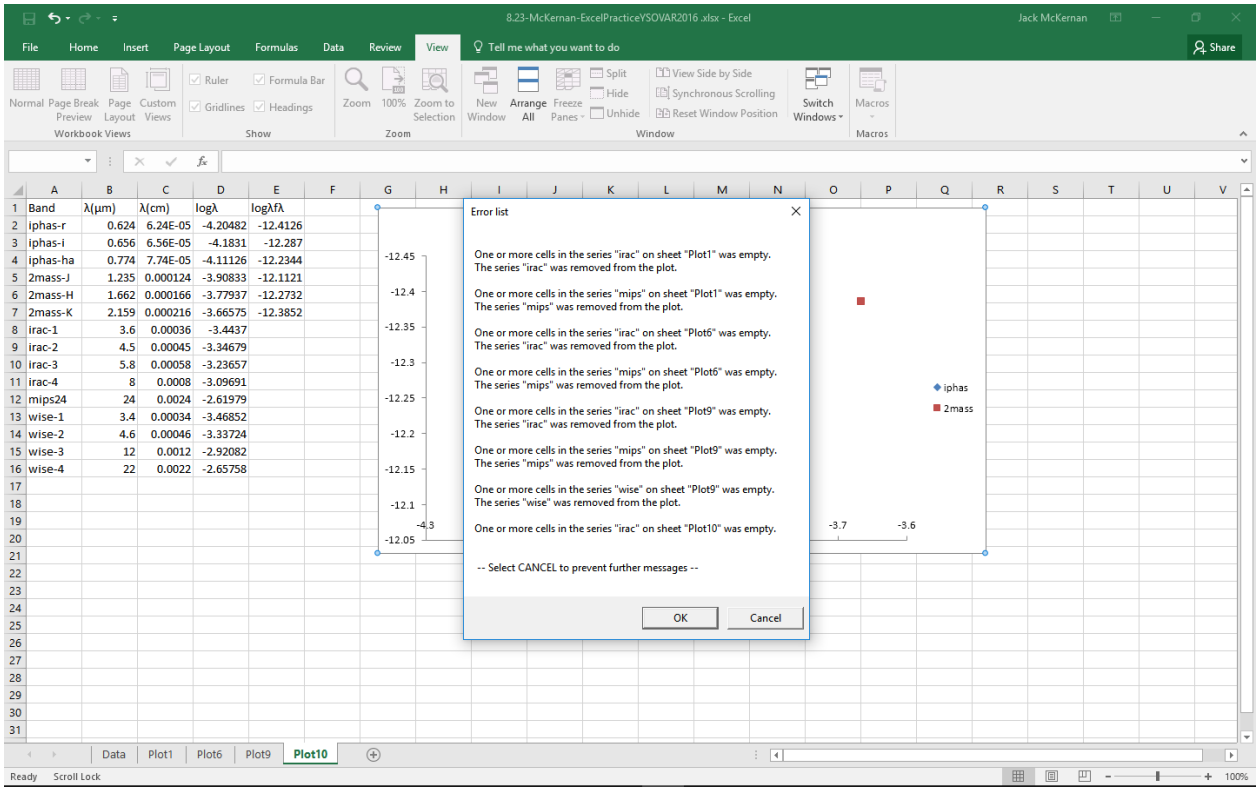
10. Enter the name of your data sheet ("Data" if you changed it per step 6) and click *OK.*



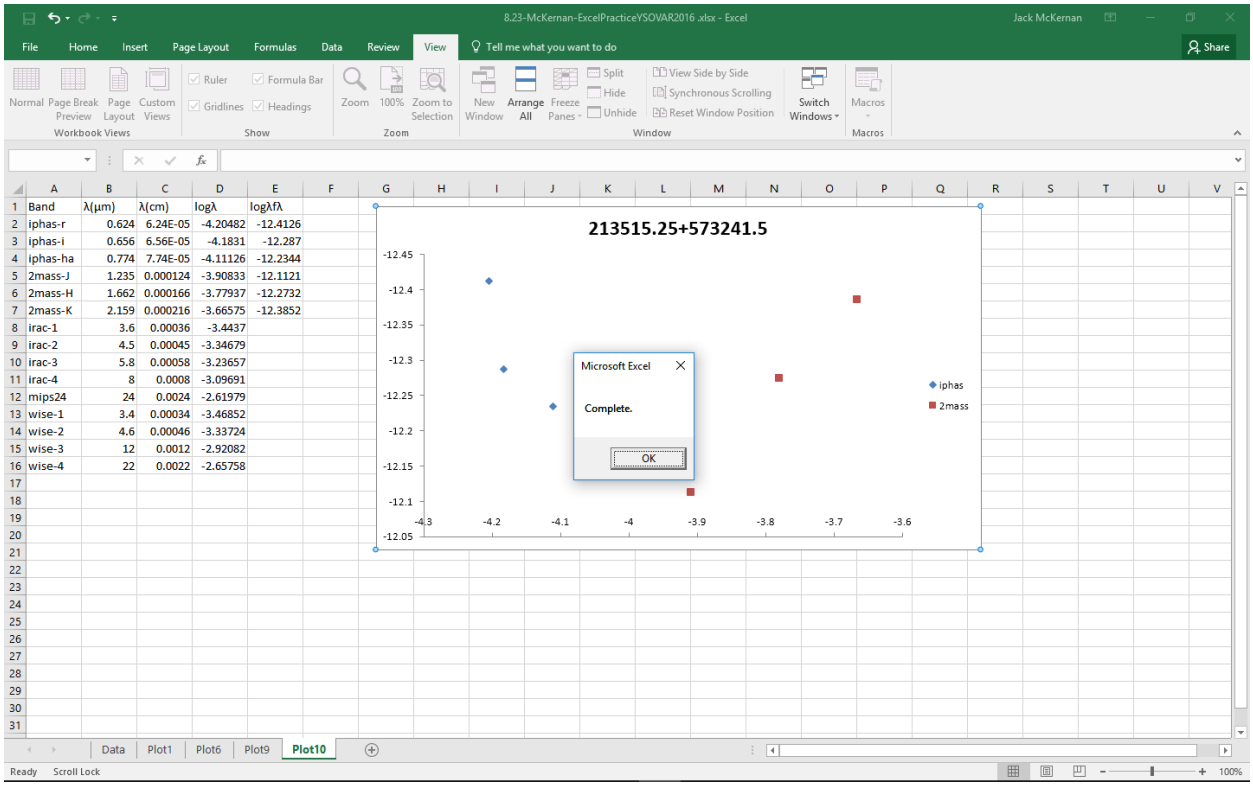

11. Select the Ids of the star or stars that you would like to plot by holding Shift or Ctrl and clicking the cells containing their Ids. When you have selected all of the desired stars, click *OK.*




12. If any data is not present in the data sheet, an error message will appear stating that the series has been removed from the plot.



13. The SEDs should now be complete for each of the stars that you selected. If you have any questions, bugs, or errors messages, feel free to send them my way at jmcker@outlook.com, and I can patch things up. Hopefully this can alleviate some redundant work.




| Band | λ(μm) | λ(cm) | logλ | logλfλ |
|---|---|---|---|---|
| iphas-r | 0.624 | 6.24E-05 | -4.20482 | -12.4126 |
| iphas-i | 0.656 | 6.56E-05 | -4.1831 | -12.287 |
| iphas-ha | 0.774 | 7.74E-05 | -4.11126 | -12.2344 |
| 2mass-J | 1.235 | 0.000124 | -3.90833 | -12.1121 |
| 2mass-H | 1.662 | 0.000166 | -3.77937 | -12.2732 |
| 2mass-K | 2.159 | 0.000216 | -3.66575 | -12.3852 |
| irac-1 | 3.6 | 0.00036 | -3.4437 | |
| irac-2 | 4.5 | 0.00045 | -3.34679 | |
| irac-3 | 5.8 | 0.00058 | -3.23657 | |
| irac-4 | 8 | 0.0008 | -3.09691 | |
| mips24 | 24 | 0.0024 | -2.61979 | |
| wise-1 | 3.4 | 0.00034 | -3.46852 | |
| wise-2 | 4.6 | 0.00046 | -3.33724 | |
| wise-3 | 12 | 0.0012 | -2.92082 | |
| wise-4 | 22 | 0.0022 | -2.65758 | |

**Error Handling –**

**"Error: The sheet _____ does not exist"** – The data sheet name that you provided does not exist inside the workbook. Try renaming your datasheet (see step 6) or check for typos in the name you entered.

**"One or more of the selected cells is empty. Please try again."** – One of the cells that you selected as the ID number of a star to be plotted does not contain any data. Be sure that you selected a valid range or ID.

**Incorrect data is sourced to the charts** – More than likely, the columns in your spreadsheet differ from the ones that the program is designed for. You have the option to adjust your spreadsheet to fit the program, or adjust the program to fit the spreadsheet.

**Adjust the spreadsheet:**

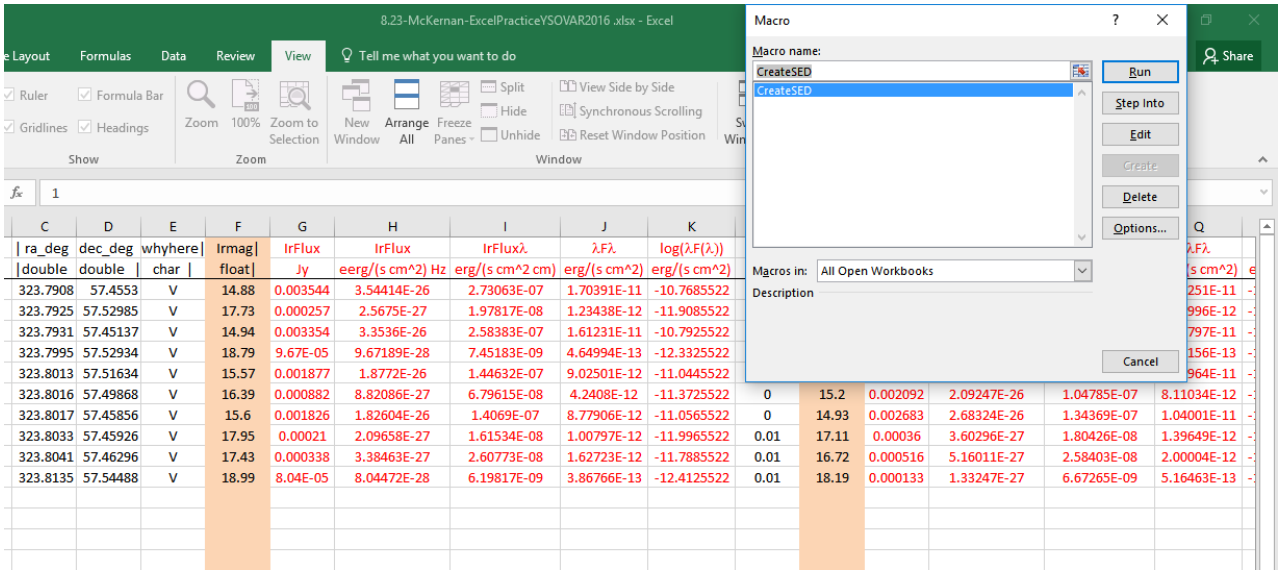
The log(λF(λ)) value for each respective source should fall in these columns:

K, R, Y, AG, AO, AW, BE, BM, BU, CC, CK, CS, DA, DI, DQ

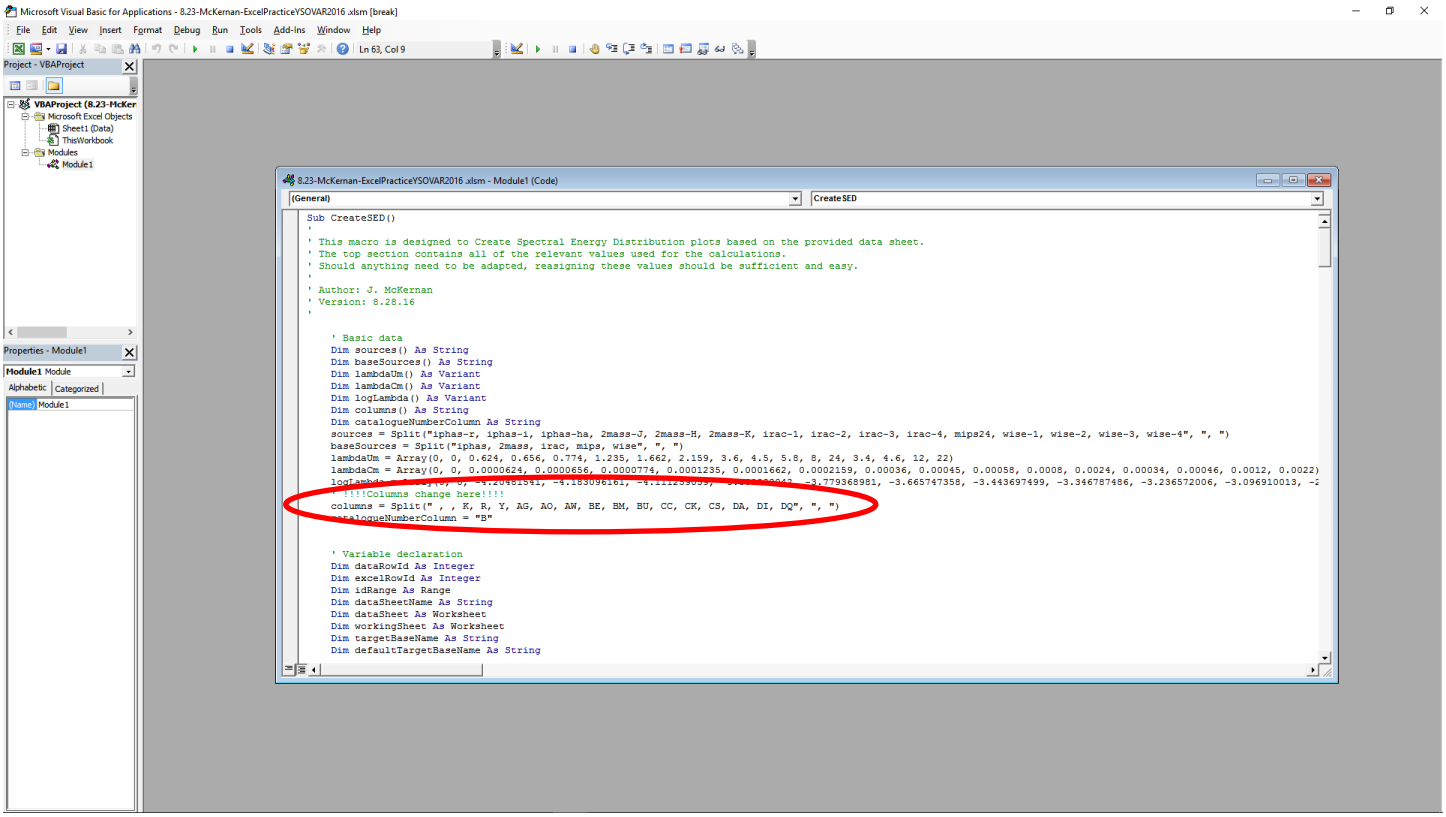
Insert or delete columns as needed to adjust your sheet.

**Adjust the program:**

To adjust the program, the column letters listed above simply need to be changed to the column letters that represent log(λF(λ)) on your datasheet. To do this, select *Macros—View Macros* under the *View* tab and click *Edit* instead of *Run.*




This should pull up the VBA edit window. Where the comment says “Change columns here,” replace the respective column letters in the code with your sheet specific letters. Saving, closing the VBA window, deleting any previously created plots, and running the macro again as usual should set you on the right track.



**Run-time error '424': Object required** – This error only occurs when selecting cancel from the ID selection prompt. If you encounter it, simply select *End,* and the macro can be run again as usual.