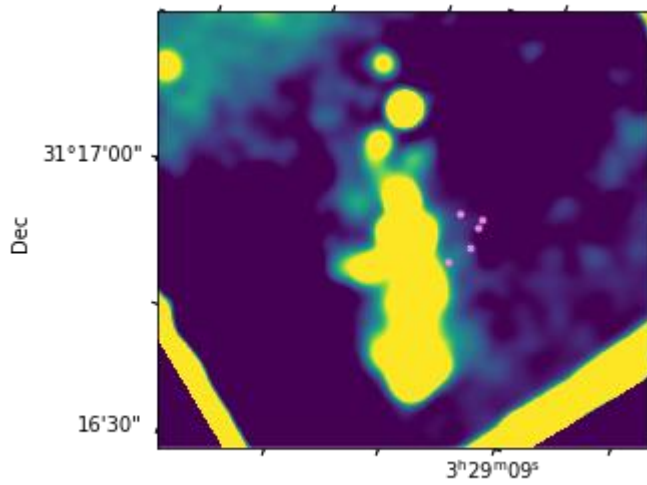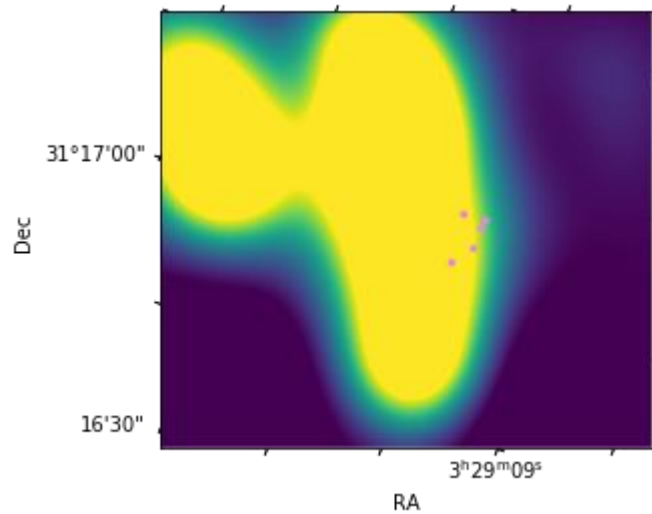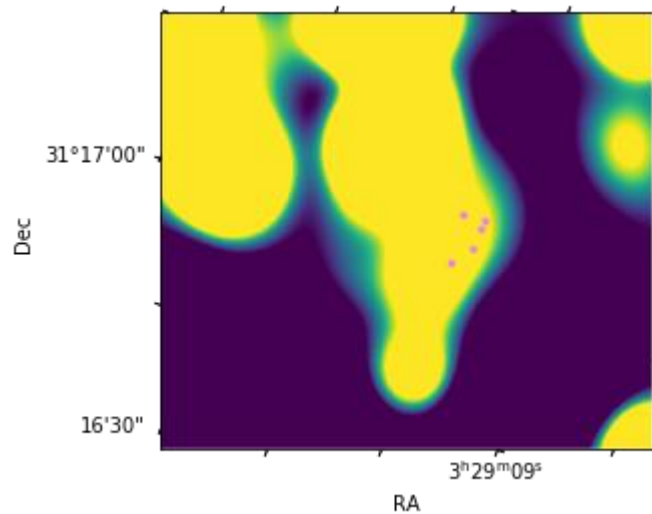# Images of Pixels Plotted (Low Res Version)

Below, plotted images in order of increasing wavelength. The **purple dots** plotted show successful, perfect fits. The **red dot** is the original pixel I tested where I could not make a perfect fit. NOTE I CAN fit pixels *next to* (1 pixel to right / left) of that red dot.
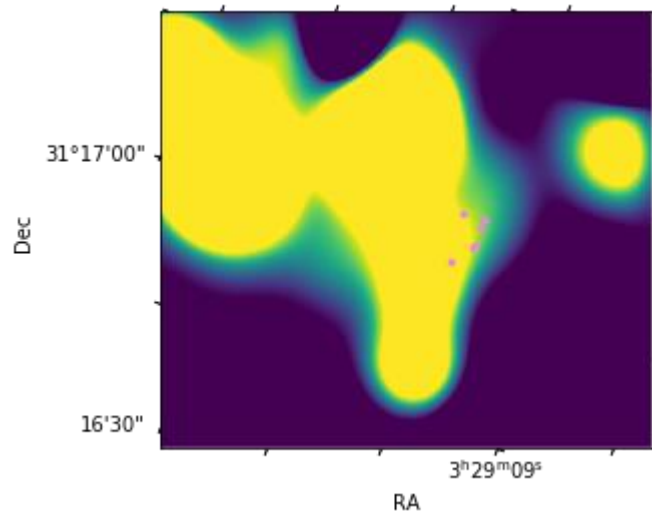

Hα:

1.26:

1.28:

1.64:

Blackbody Fits

Fitting the blackbody fits
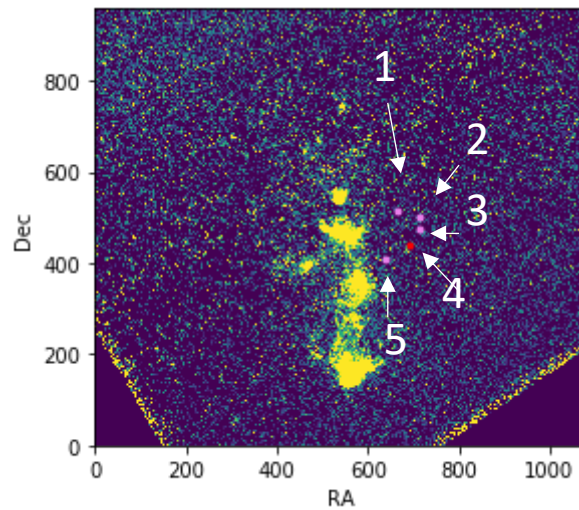Repeat labeling the regions by number only for reference on relative position:
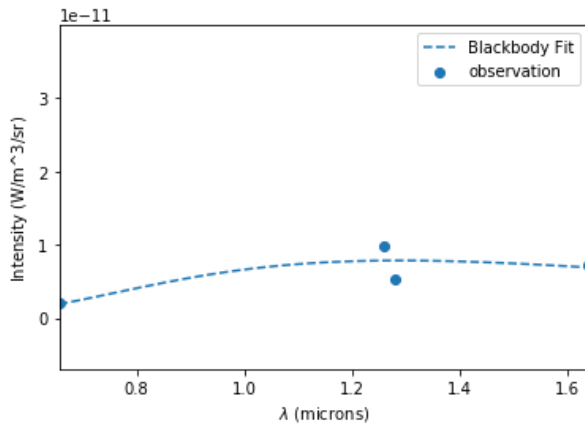

Table of fit properties:

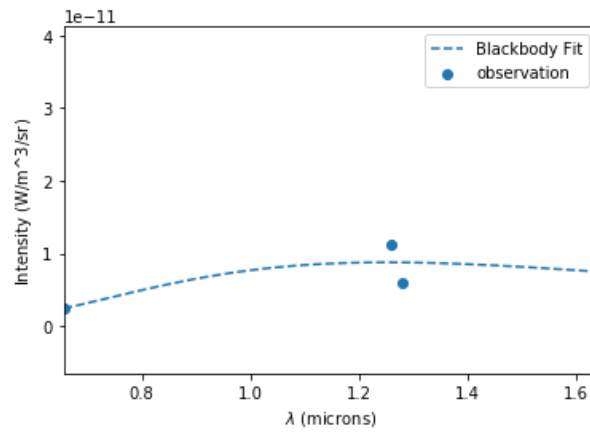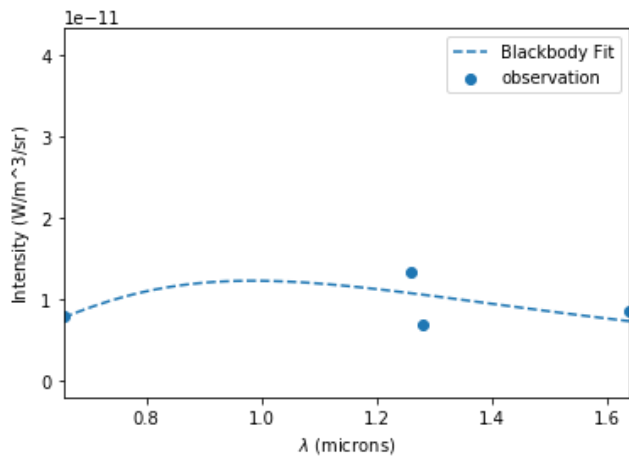| Region #	T (K)	C
1	2.69276711e+03	2.08456832e-23
2	2.24833984e+03	3.34560847e-23
3 (translated by ~10 pixels)	6.75899674e+03	1.24505865e-24
4	2.94369669e+03	1.35597189e-23
4 (1 pix right, up)	2.87200831e+03	1.47657956e-23
4 (1 pix left, up)	2.95519163e+03	1.34915941e-23
5	3.72003286e+03	9.19077176e-24

Blackbody plots (same order as table):

1...
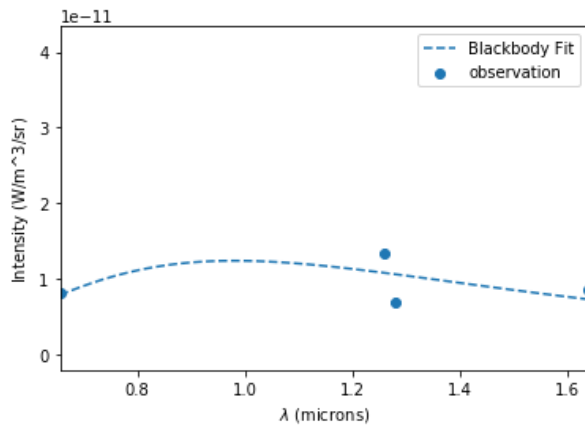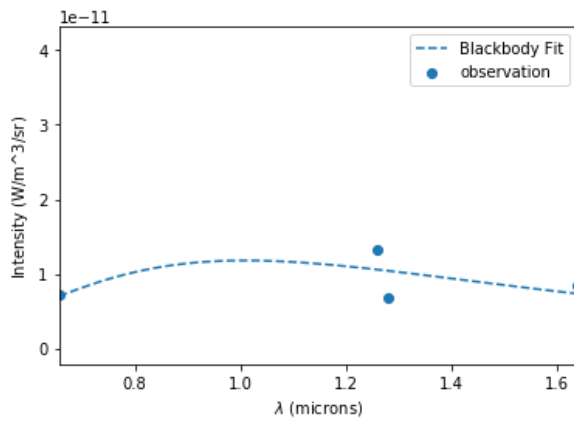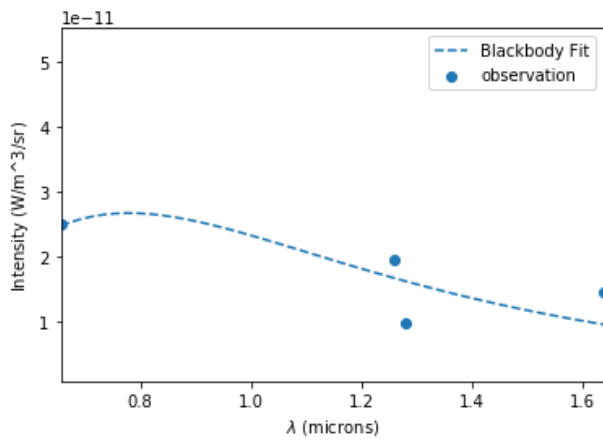

2...
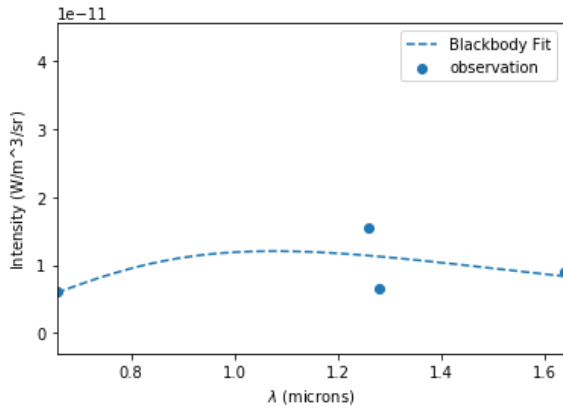
3 (translated by ~10 pixels)...

4…

4, 1 pix up, right…

4, 1 pix left, up…


5…

Fitting Non-Lin Equs for Multiple Pixels

For each pixel, I *fit by scipy curve_fit*. Newton-krylov will converge to a similar but slightly more accurate value from my tests on the one pixel that didn't fit, but it is slower to do that, so I'm doing this for efficiency. I consider a fit with the sum of squares is ~1E-40 to 1E-50 (and I can't distinguish the points on the plot):

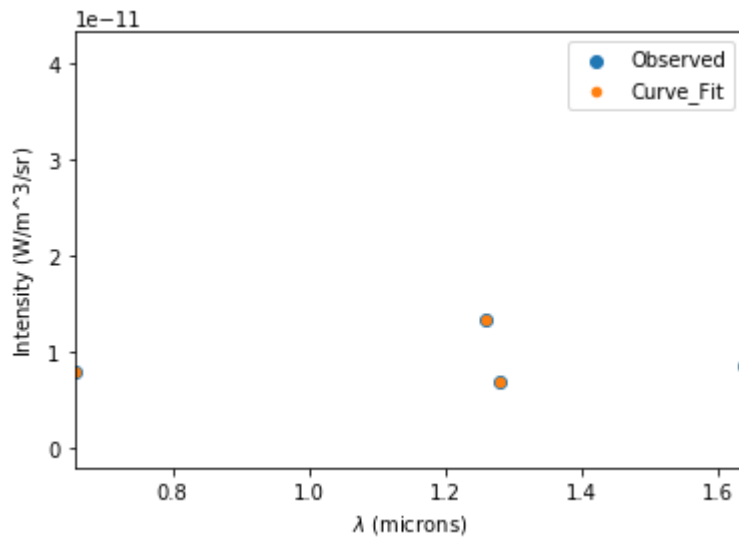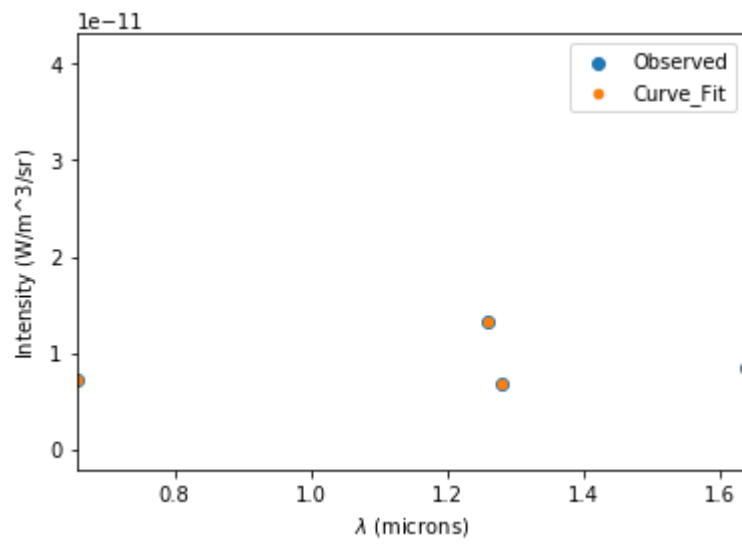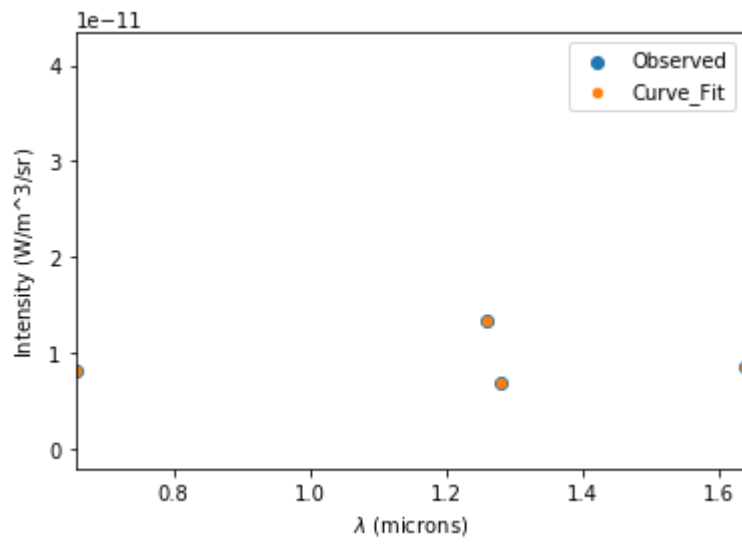| Fit Parameter	C	A_V	f_H	f_{Fe}	Σ(squares)
1	-2.45977472e-22	8.35379303	1.84369177e-10	1.34018699e-10	4.698219216958938e-53
2	-2.07689865e-22	8.96471430	9.86578776e-11	7.42284712e-11	5.383376186098783e-54
3 (translated by ~10 pixels)	-2.35471551e-24	2.82156371	2.88044647e-11	2.35900626e-11	3.817303113779137e-52
4	-1.28619614e-22	7.67381288	1.46538320e-10	9.86143311e-11	5.22024357439882e-54
4 (1 pix right, up)	-1.36093123e-22	7.78094390	1.43399847e-10	9.73817504e-11	3.6541705020791737e-53
4 (1 pix left, up)	-1.27406439e-22	7.64724499	1.47216483e-10	9.90226620e-11	2.871133965919351e-53
5	-3.35046118e-23	5.57218751	9.89995454e-11	7.14174382e-11	1.044048714879764e-52

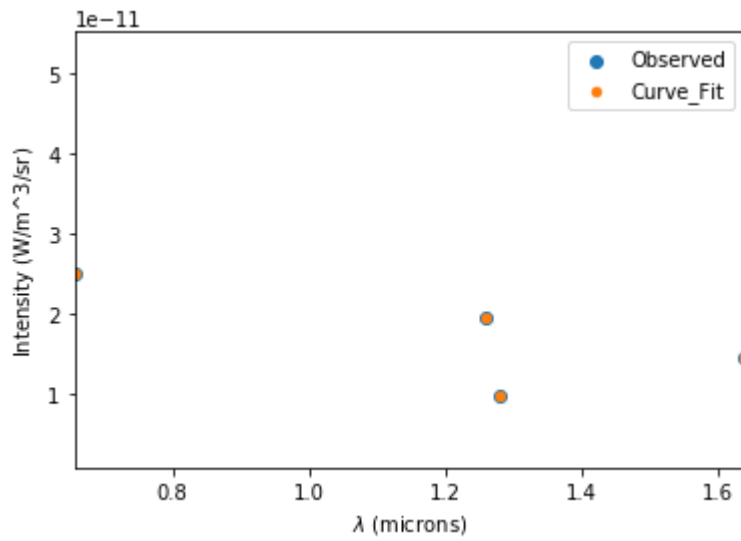Intensity Plots of Fits (same order):

1…

2…
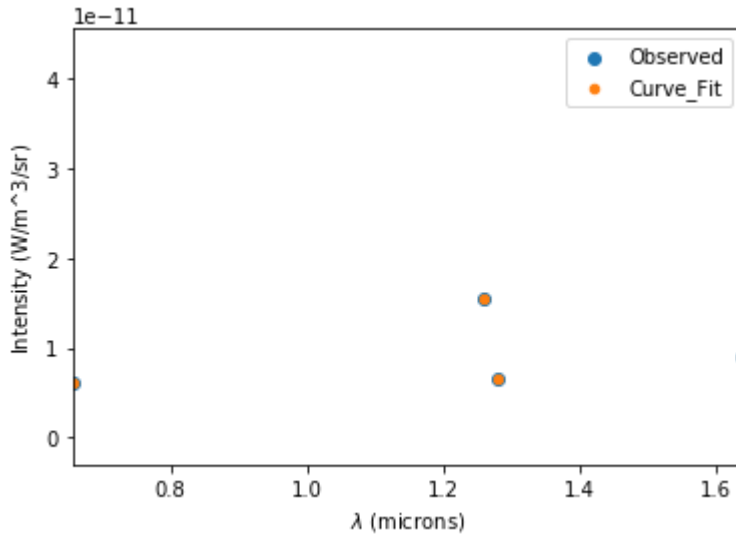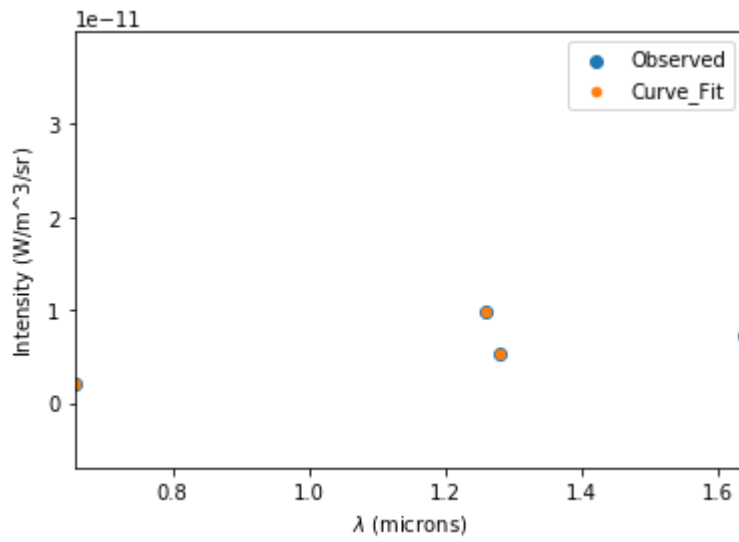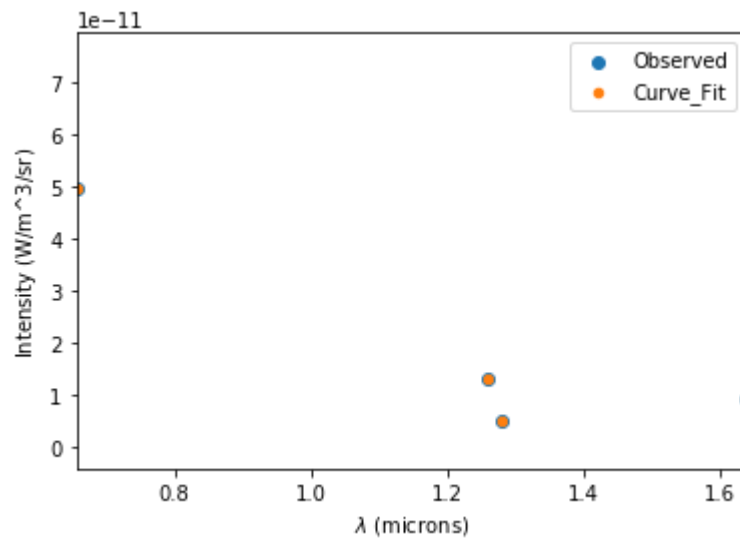
3 (translated by ~10 pixels)…

4…

4, 1 pix right, up…

4, 1 pix left, up…

5…