

# PIPE2D-857

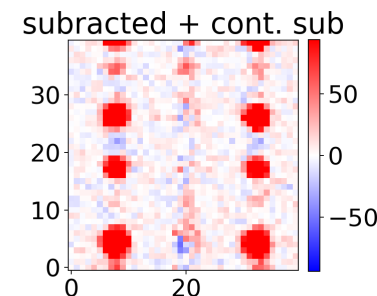
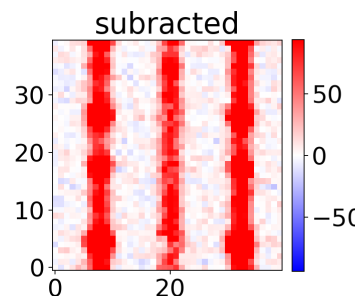
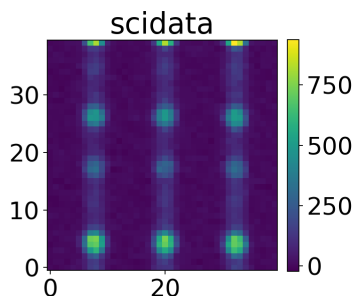
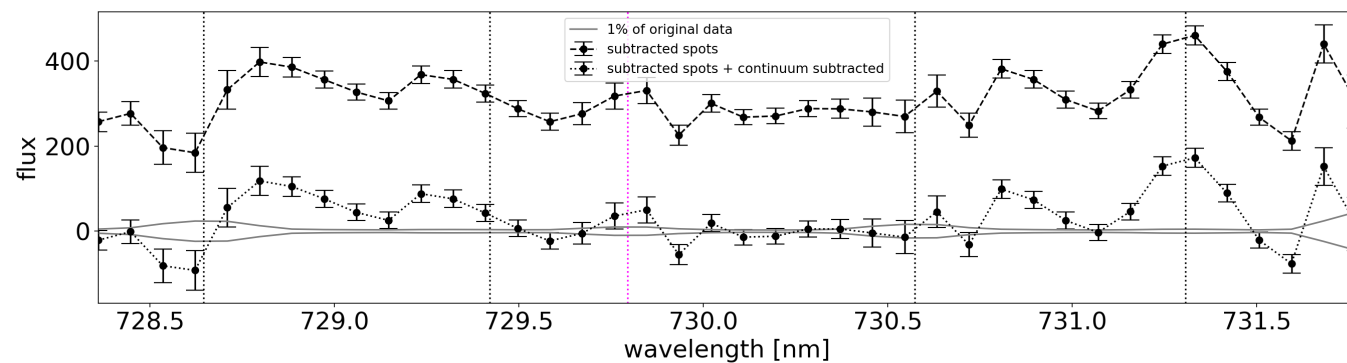
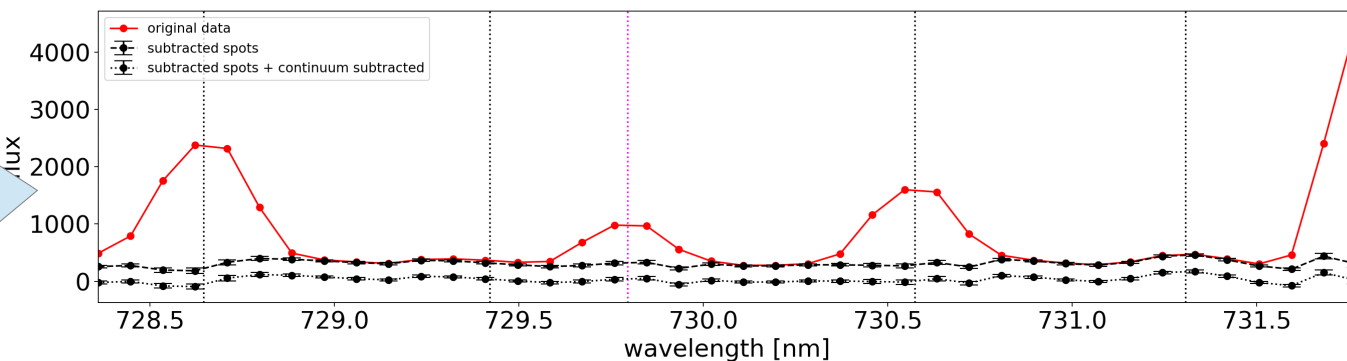
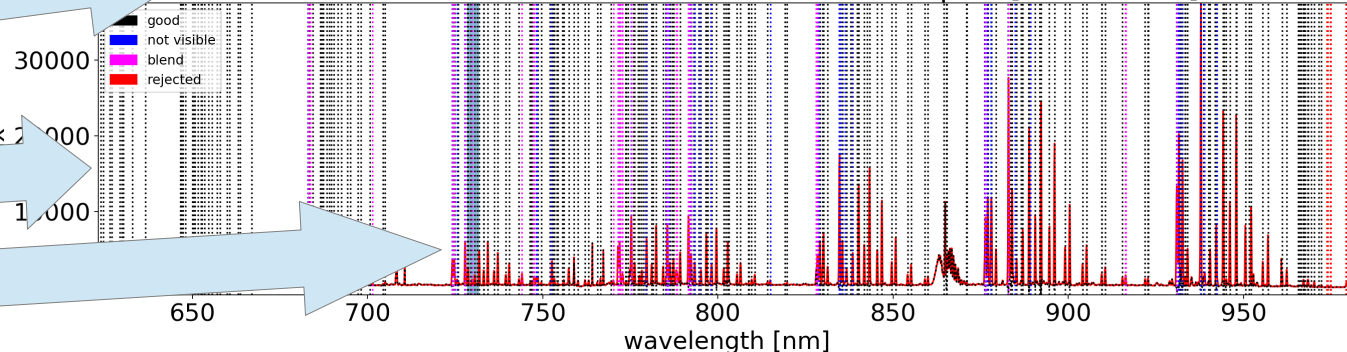
Also at [/home/ncaplar/Pipeline\\_notebooks/PIPE2D-857.ipynb](/home/ncaplar/Pipeline_notebooks/PIPE2D-857.ipynb)

- Problems noticed
- Continuum subtraction (large and small differences)
- Lines missed (feature at 863nm and weak lines)
- Possibly centering issues?
- Bad modelling

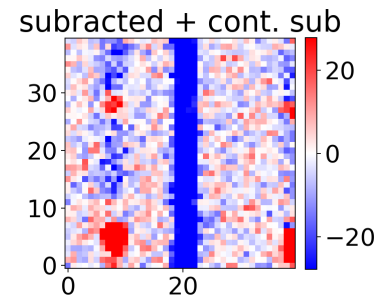
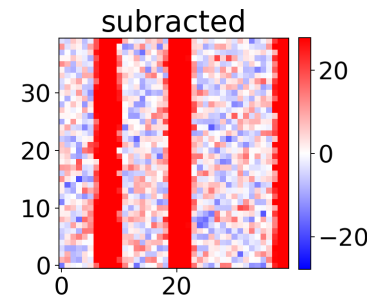
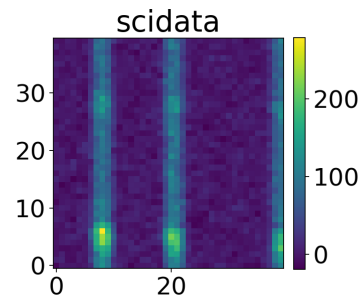
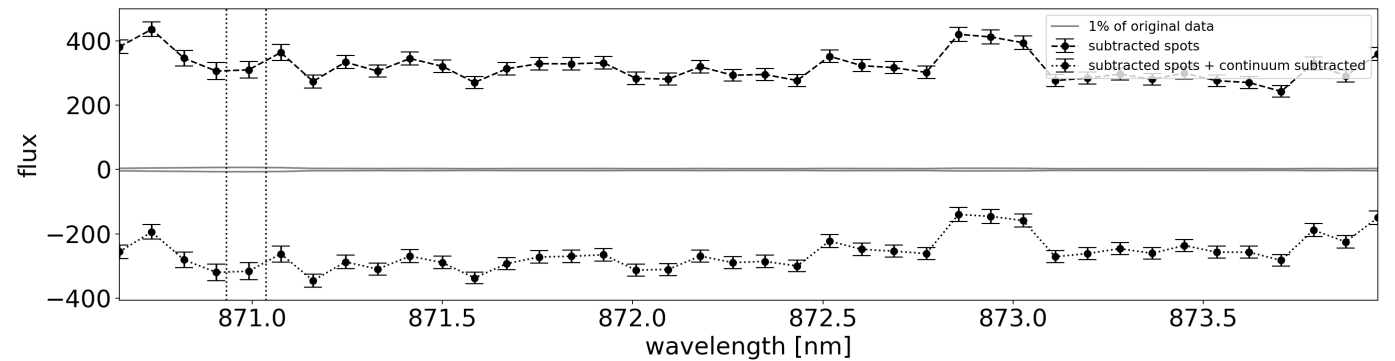
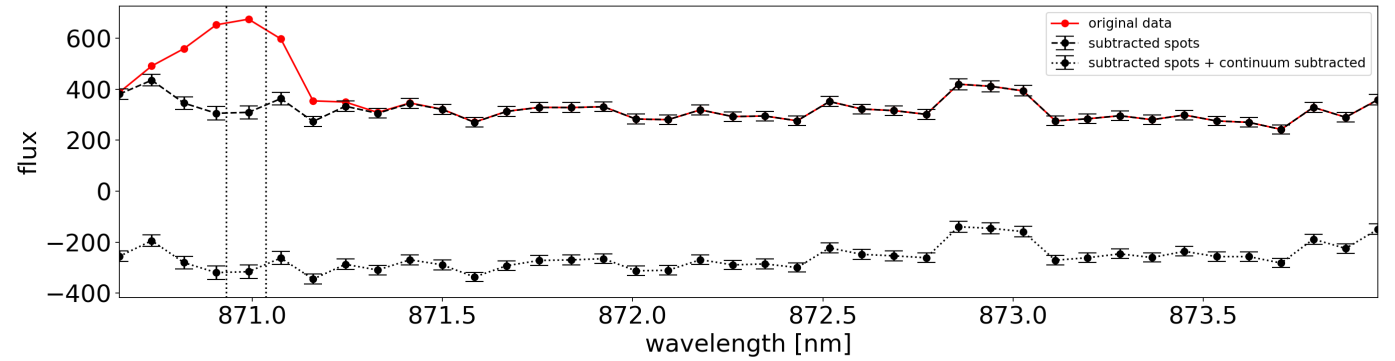
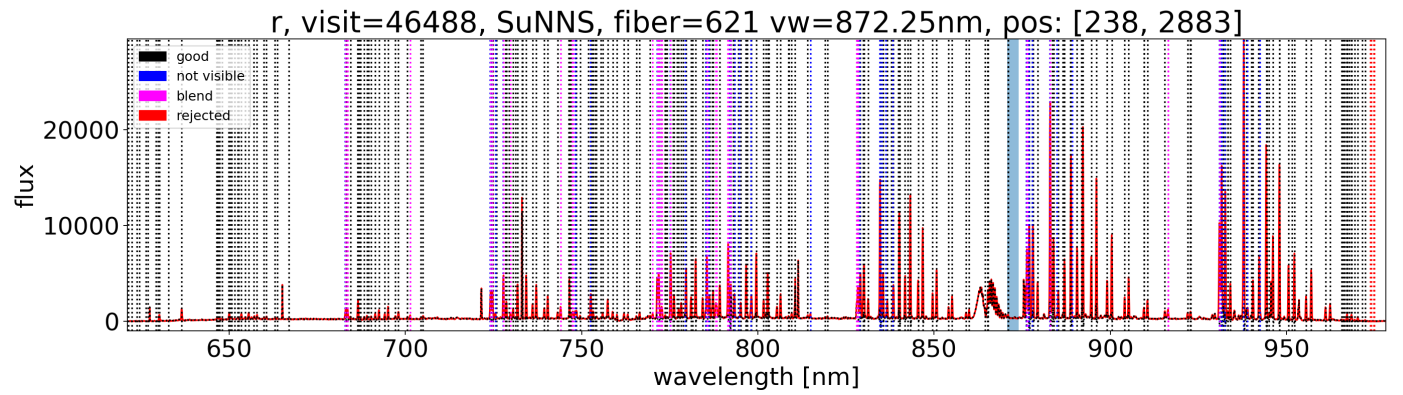
• V1, August 04, 2021

r, visit=46488, SuNNS, fiber=401 vw=730nm, pos: [1597, 1199]

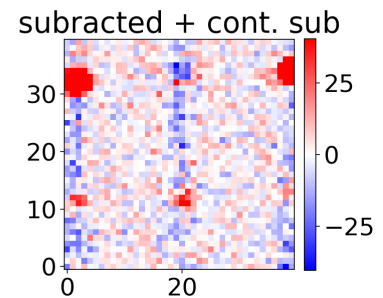
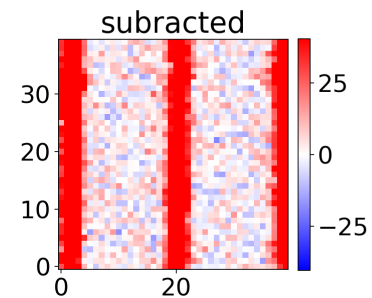
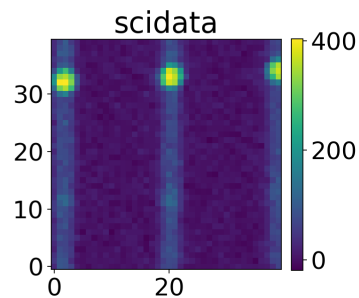
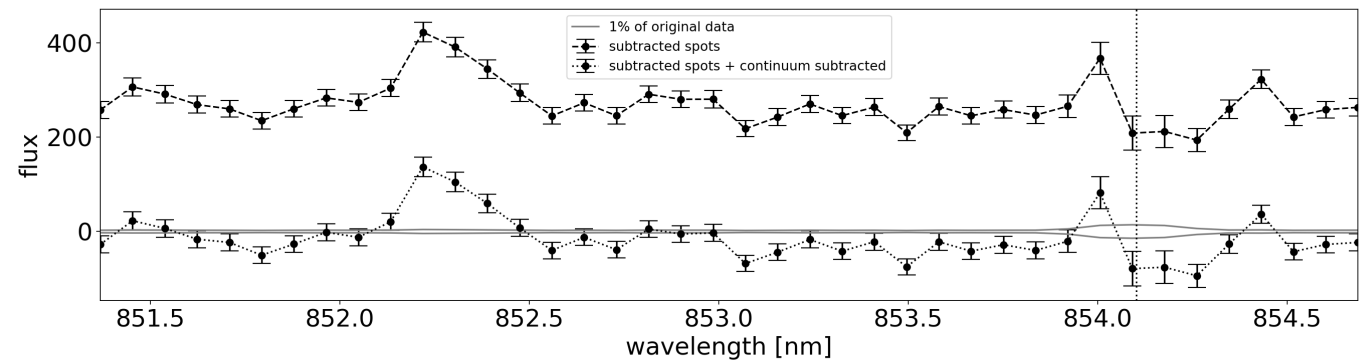
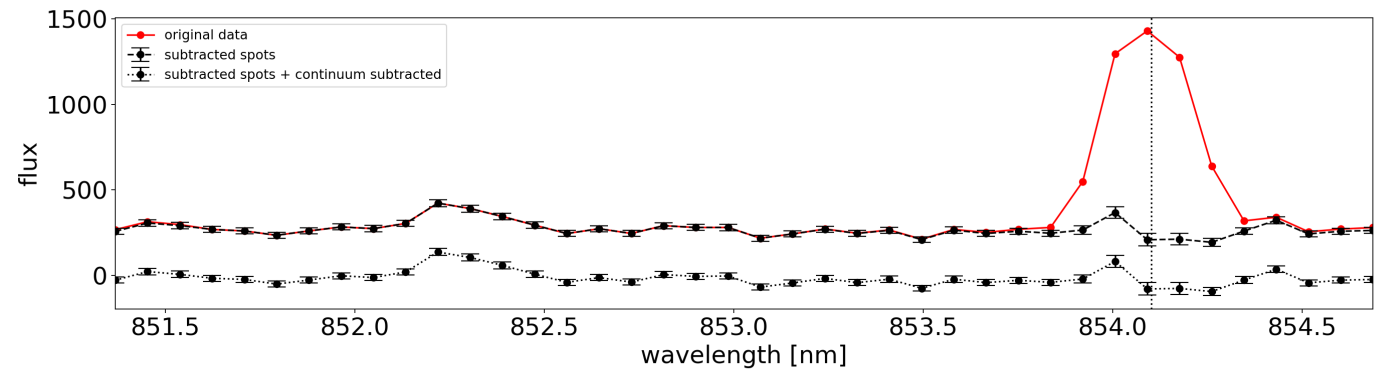
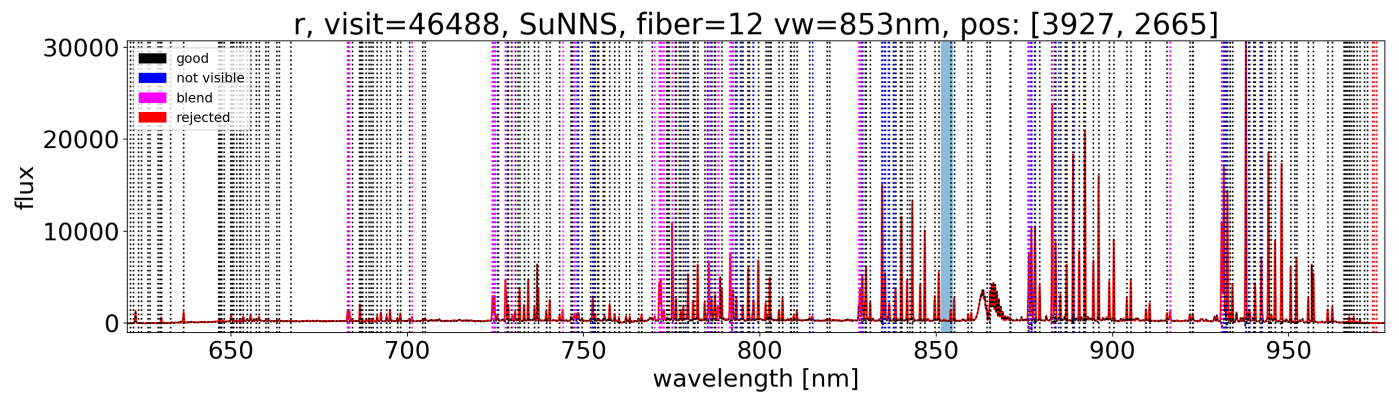
- Example
- Fiber, wavelength
- Full spectrum with all lines
- Shaded region shows the region of interest
- Zoom in on the region of interest. Red shows the data, dashed after subtraction of spots, dotted after continuum subtraction as well.
- Zoom in on the region of interest, on the subtracted spectrum. The gray line shows  $\pm 1\%$  of the data.
- 2d images of the region of interest. Left: original data, middle after spot subtraction, right after cont subtraction as well. Scaled to 10% of original image (sometimes 5%).



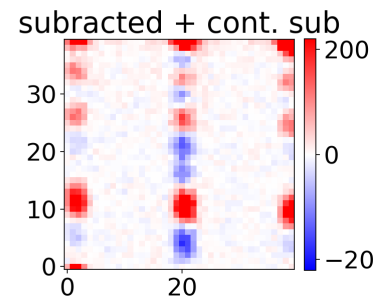
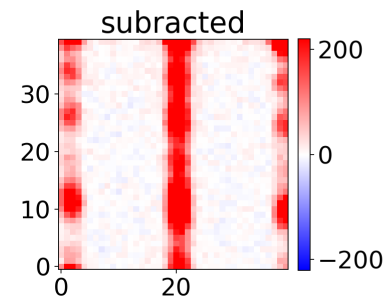
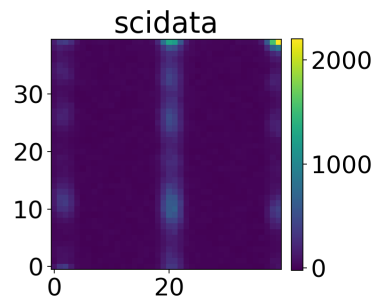
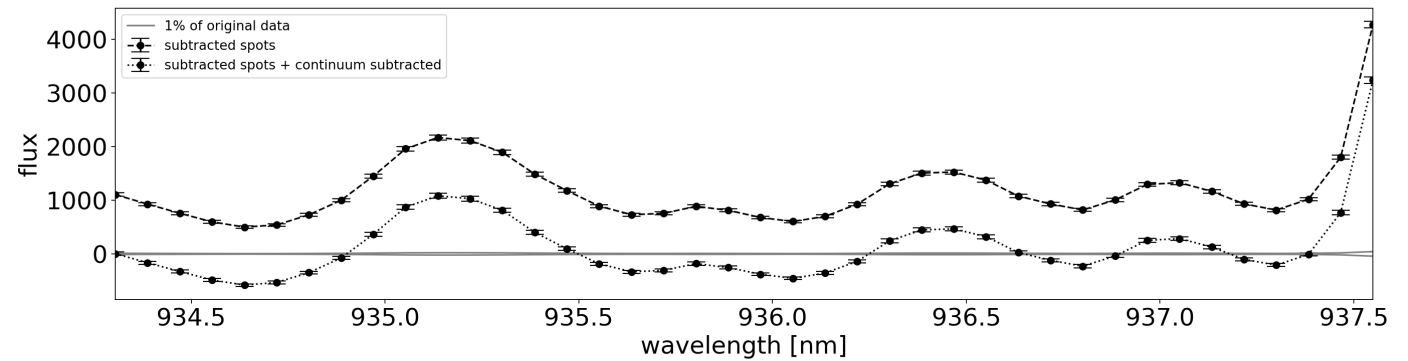
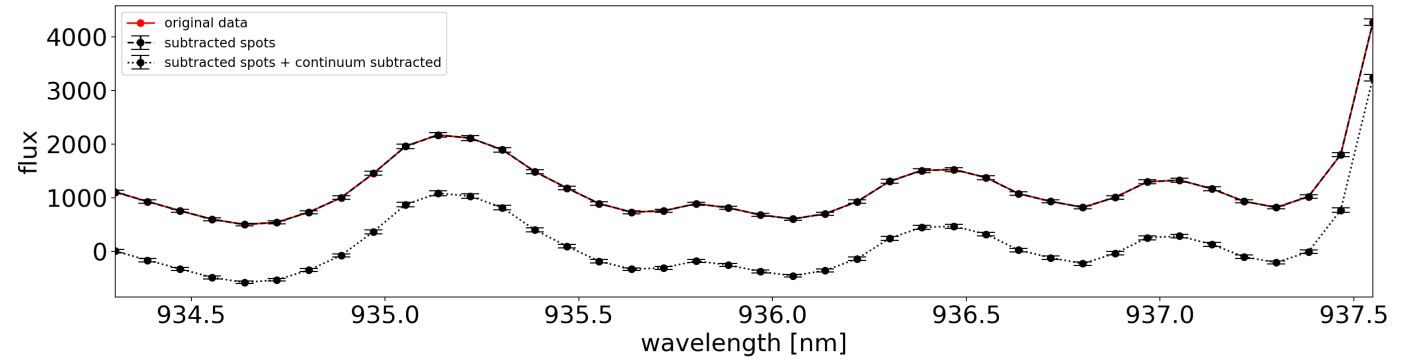
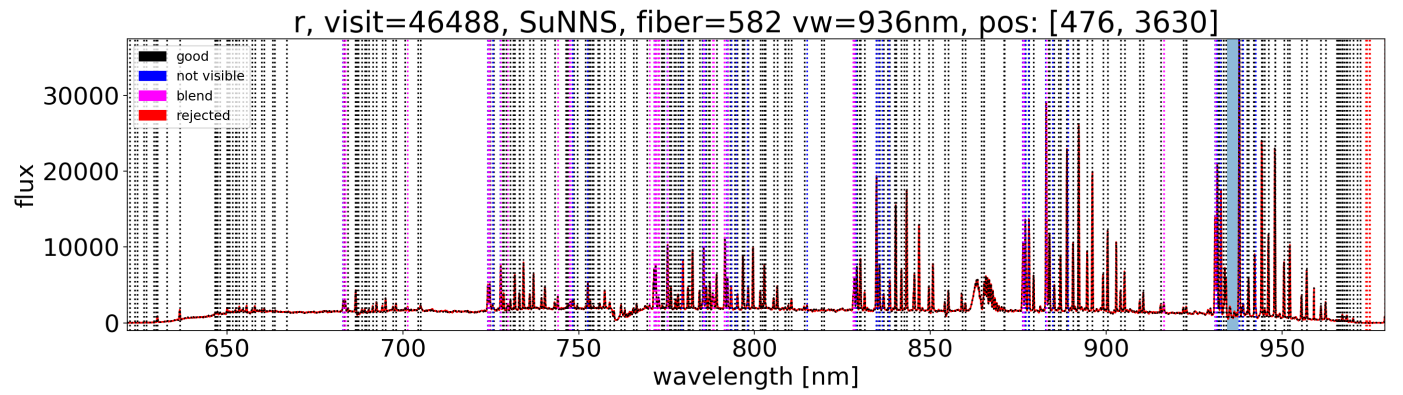
- Continuum subtraction I.
- Continuum subtraction seems off. In this case it very oversubtracted, in the area without many lines near by.



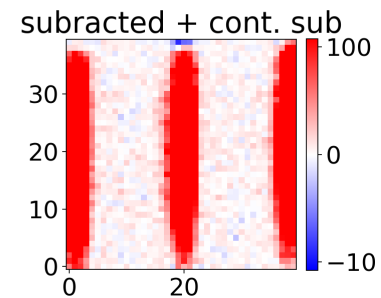
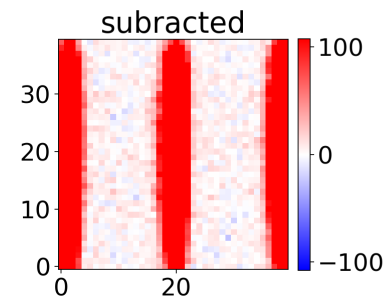
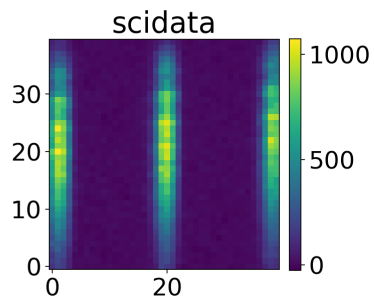
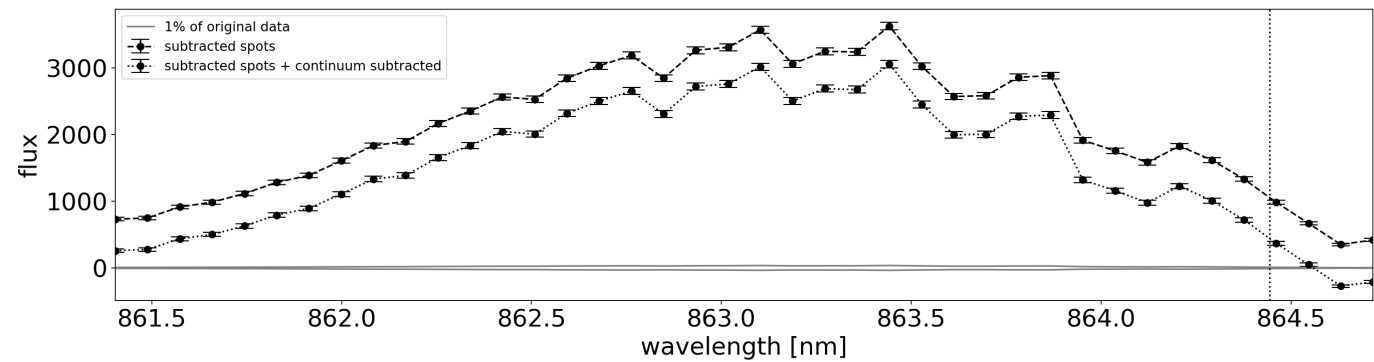
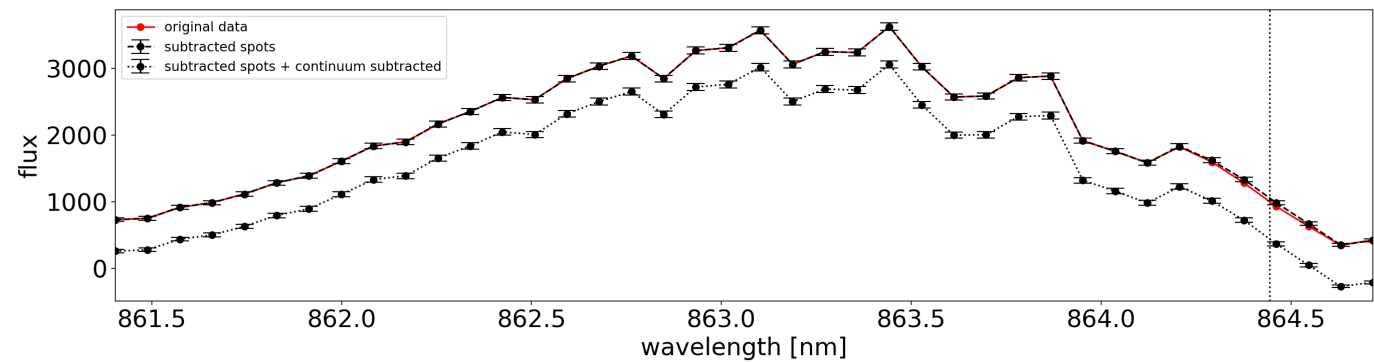
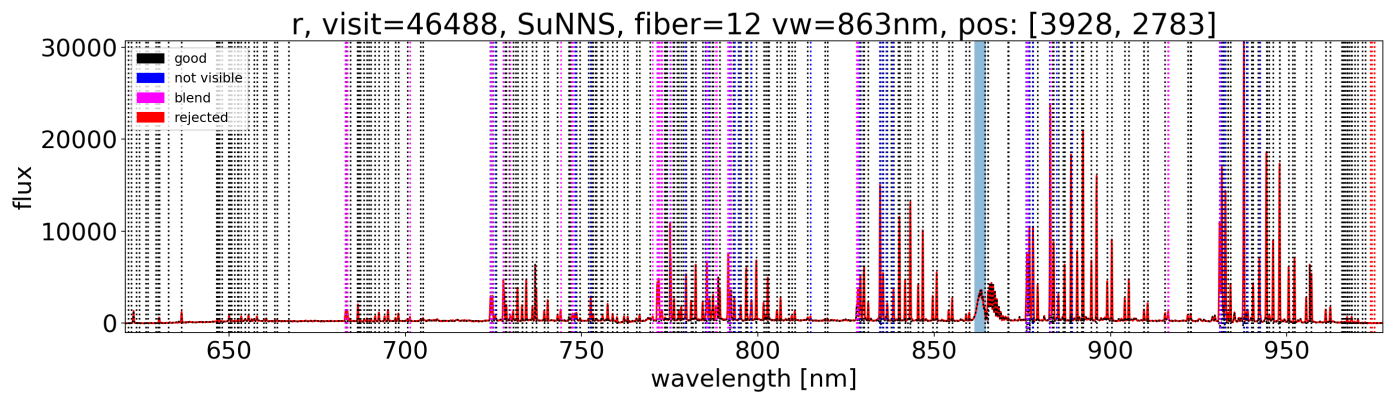
- Continuum subtraction II.
- In this case the continuum is just slightly oversubtracted.



- Continuum subtraction III (or missing lines)?
- Strong continuum in this fiber creates peculiar result?

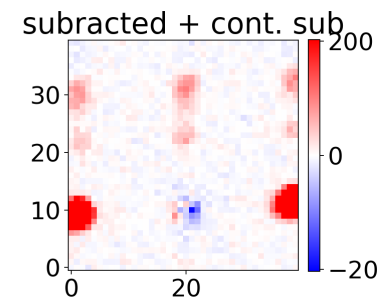
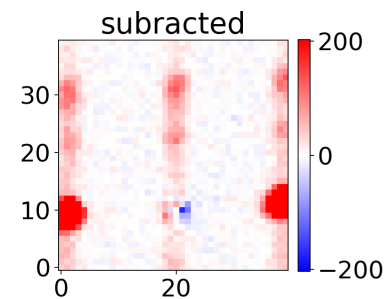
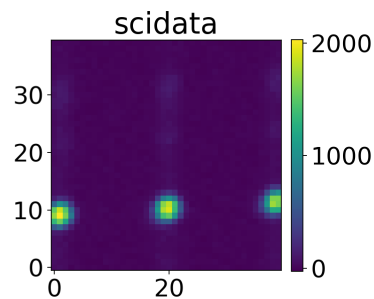
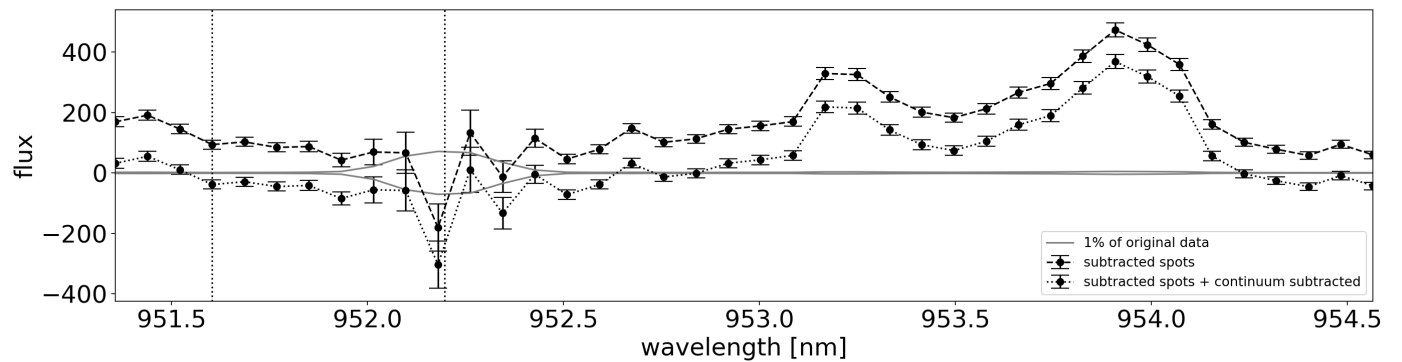
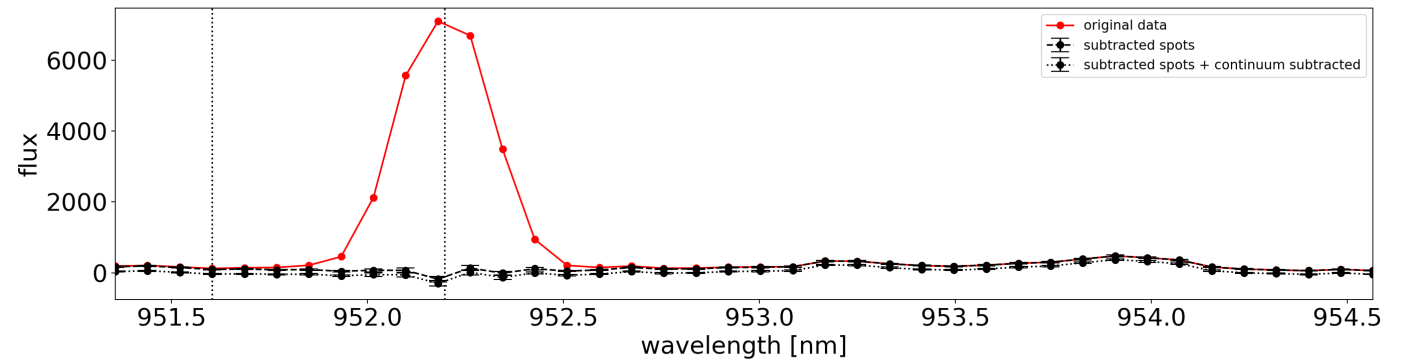
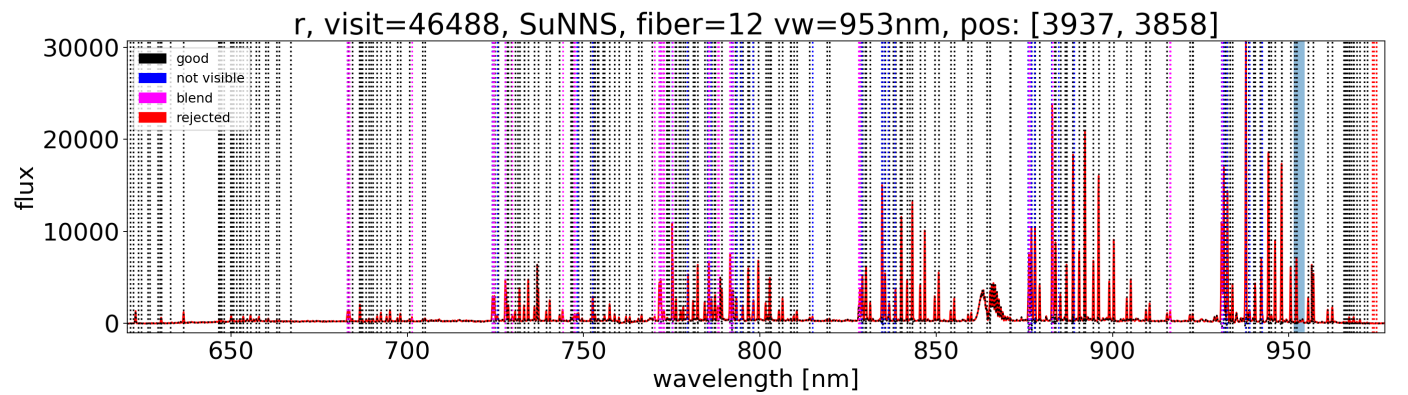


- Lines missed I.
- Dense feature around 863 nm not touched



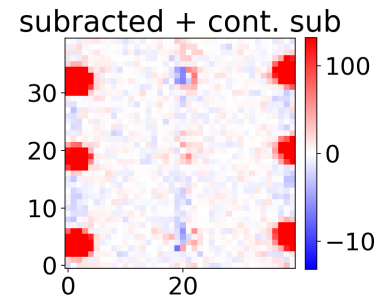
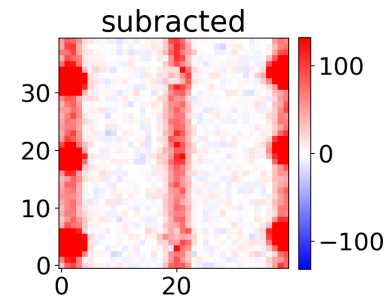
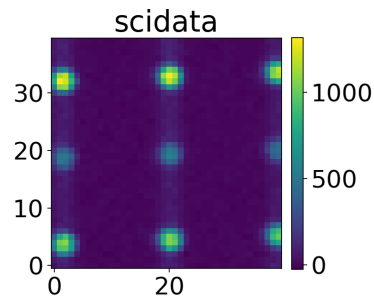
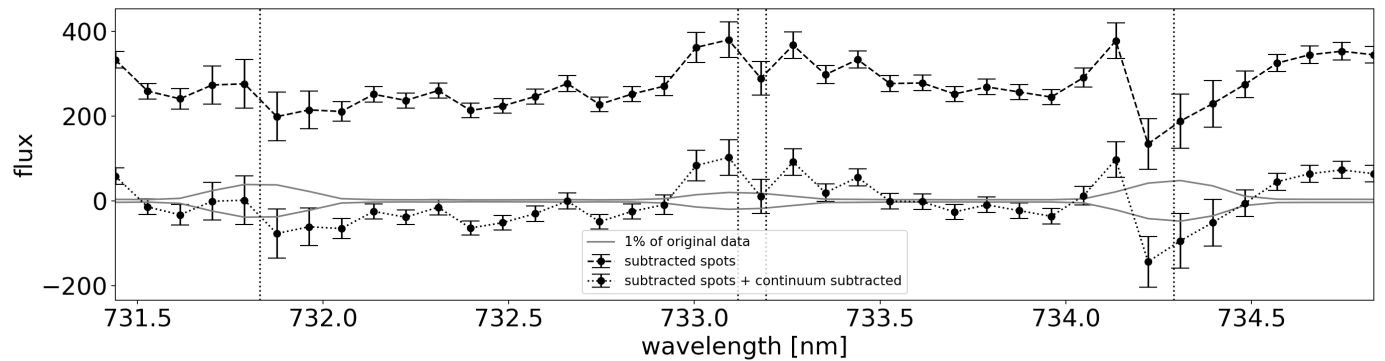
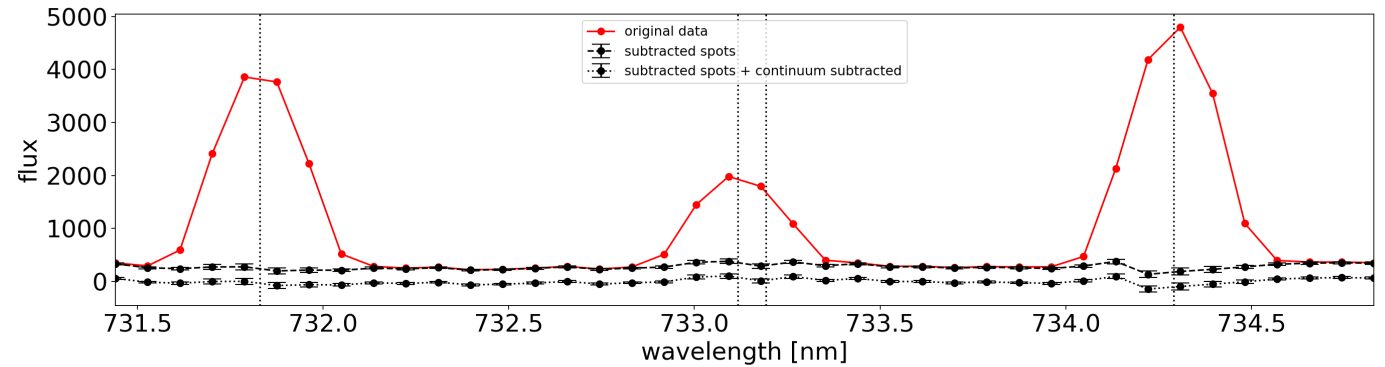
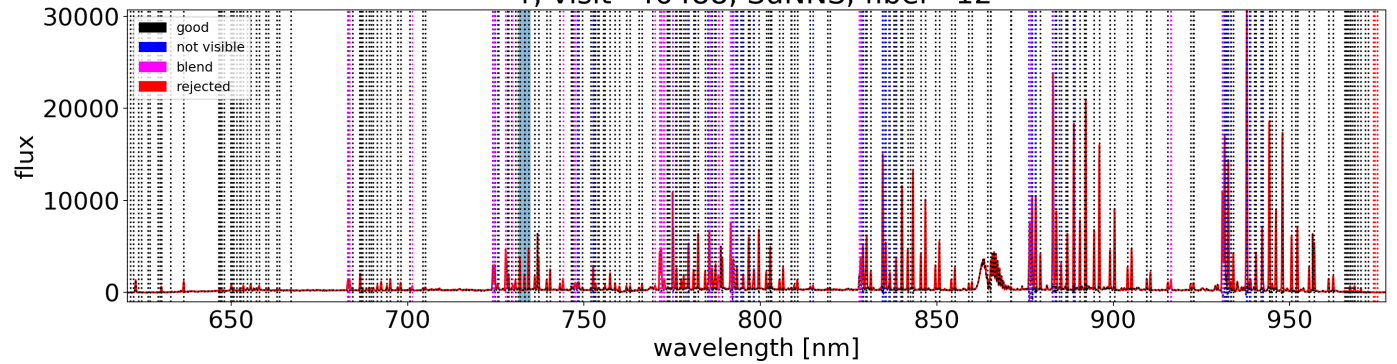


- Lines missed II.
- Some weak spots are not subtracted. In this example the bright spot is subtracted, but faint ones are missed.



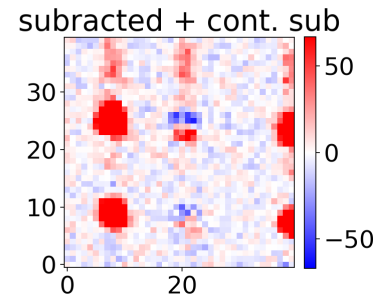
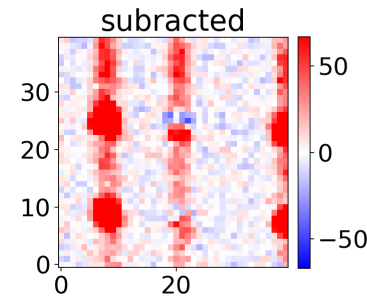
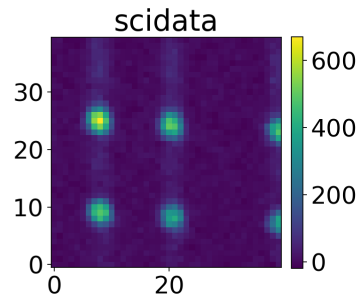
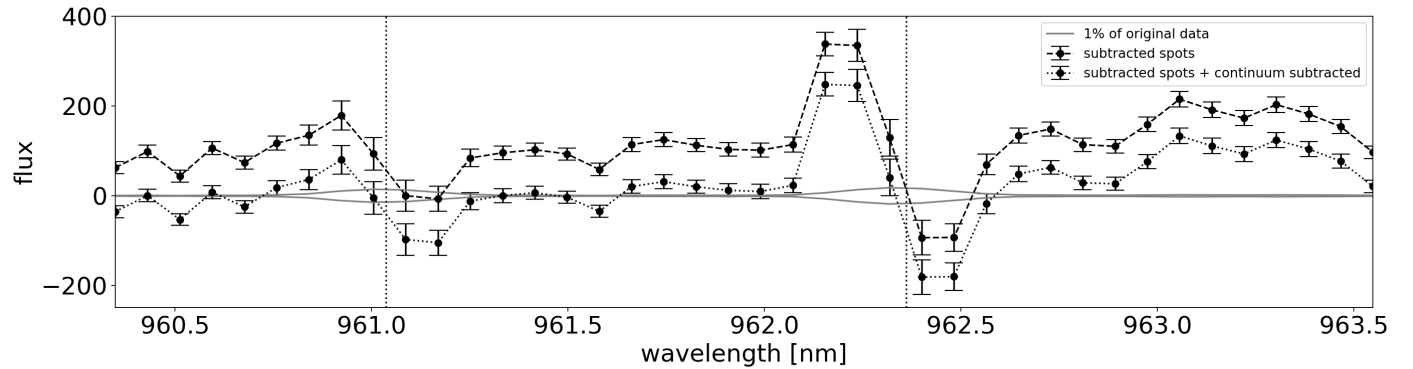
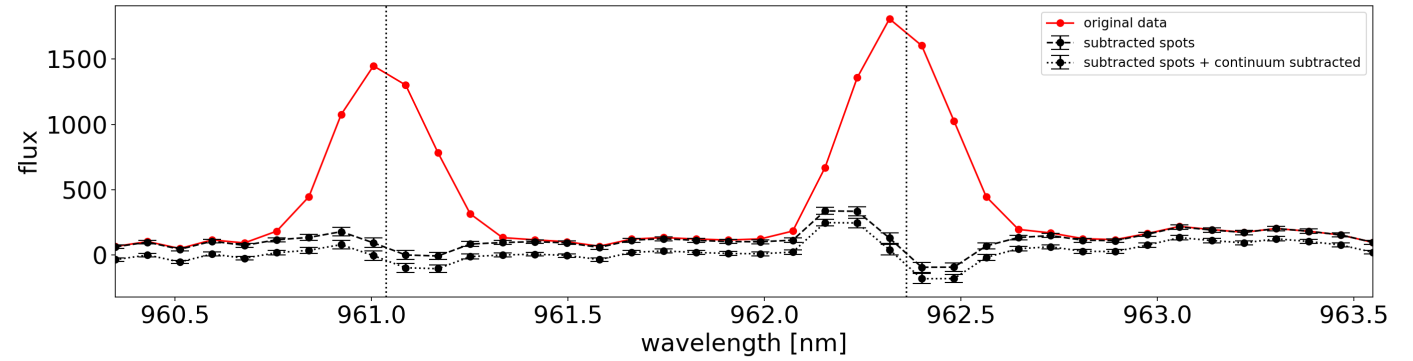
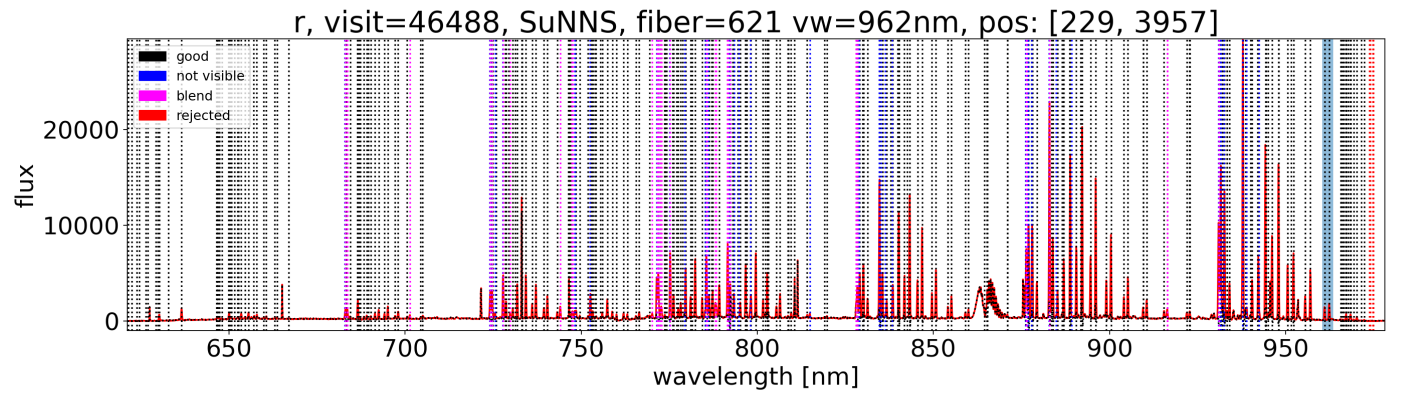
- Centering
- Possible problem in centring, with the whole subtraction being offset from the data.
- Possibly could be fixed by running a custom reduceArc.py for this particular dataset.

r, visit=46488, SuNNS, fiber=12





- Example of bad modelling and possibly some centering offset? Maybe some missed faint lines as well?



- Example of horrible modellin, completely wrong size?!

