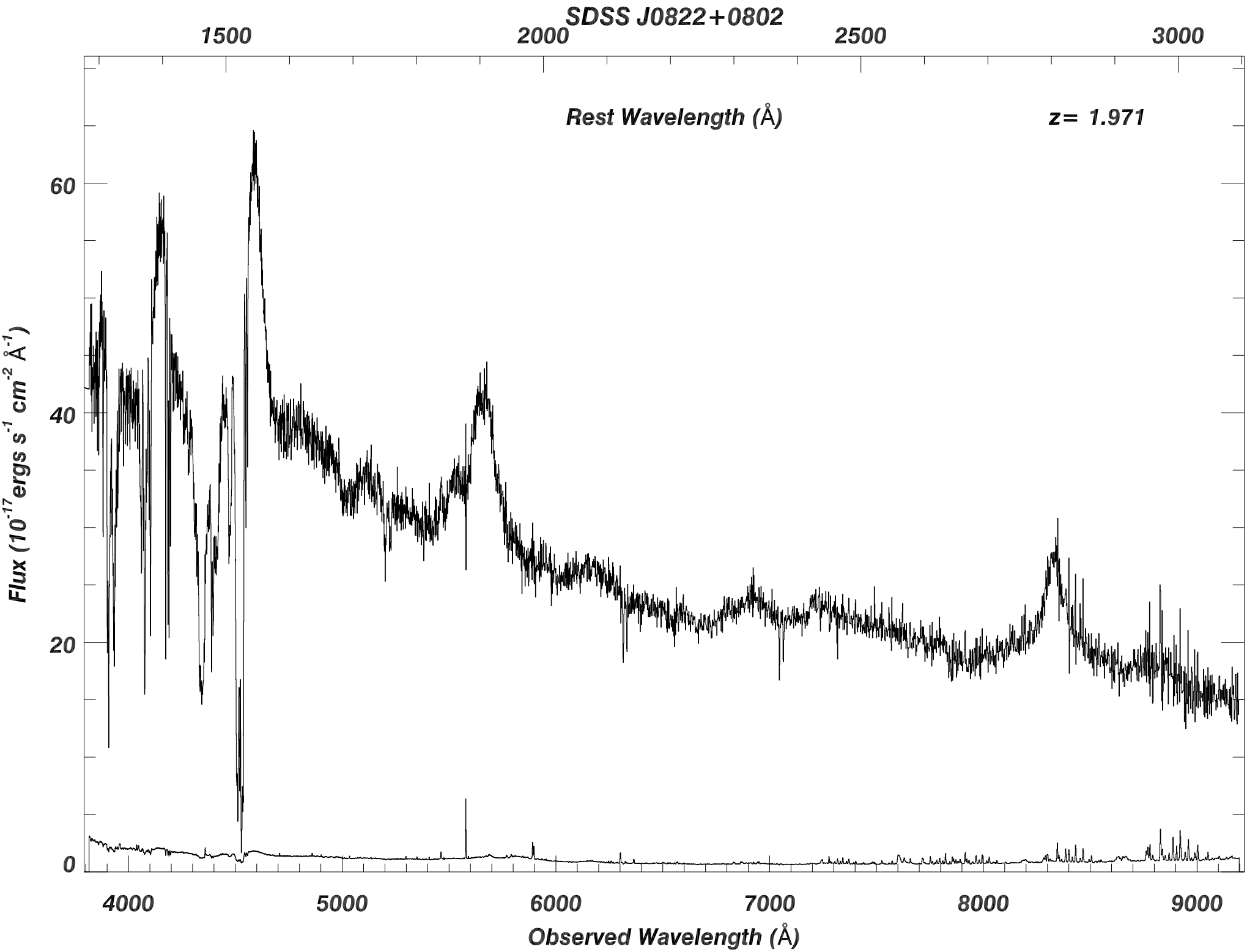
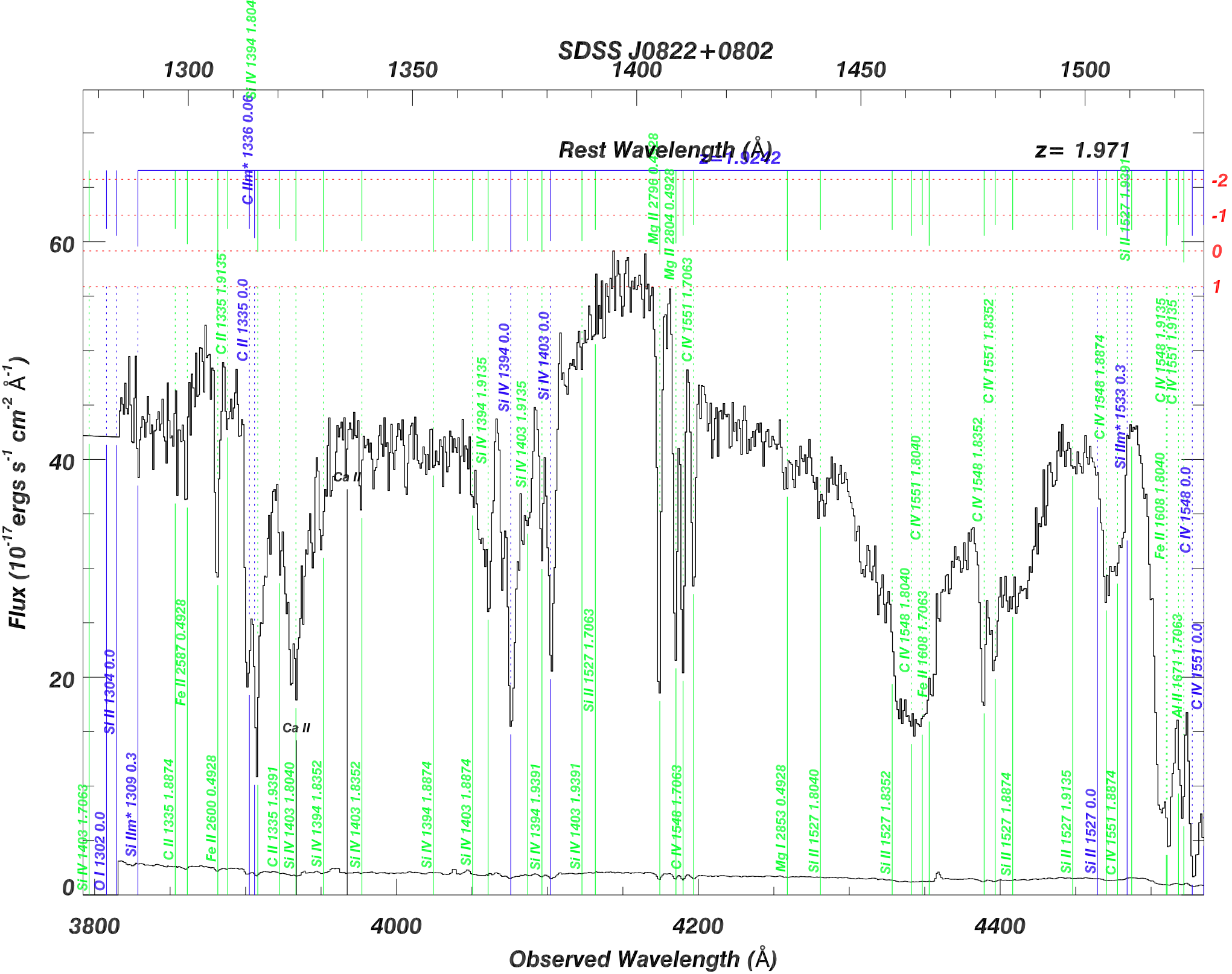
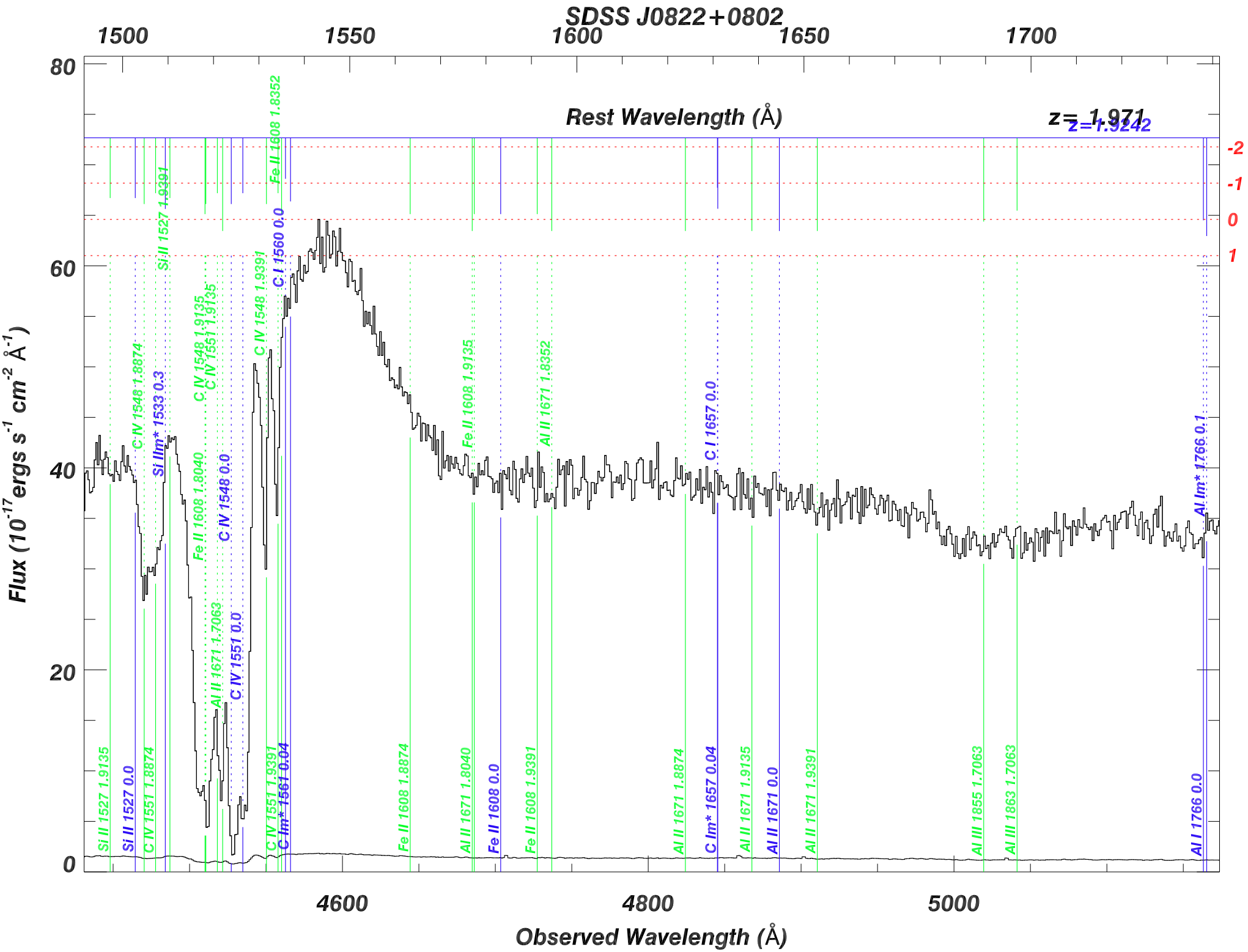
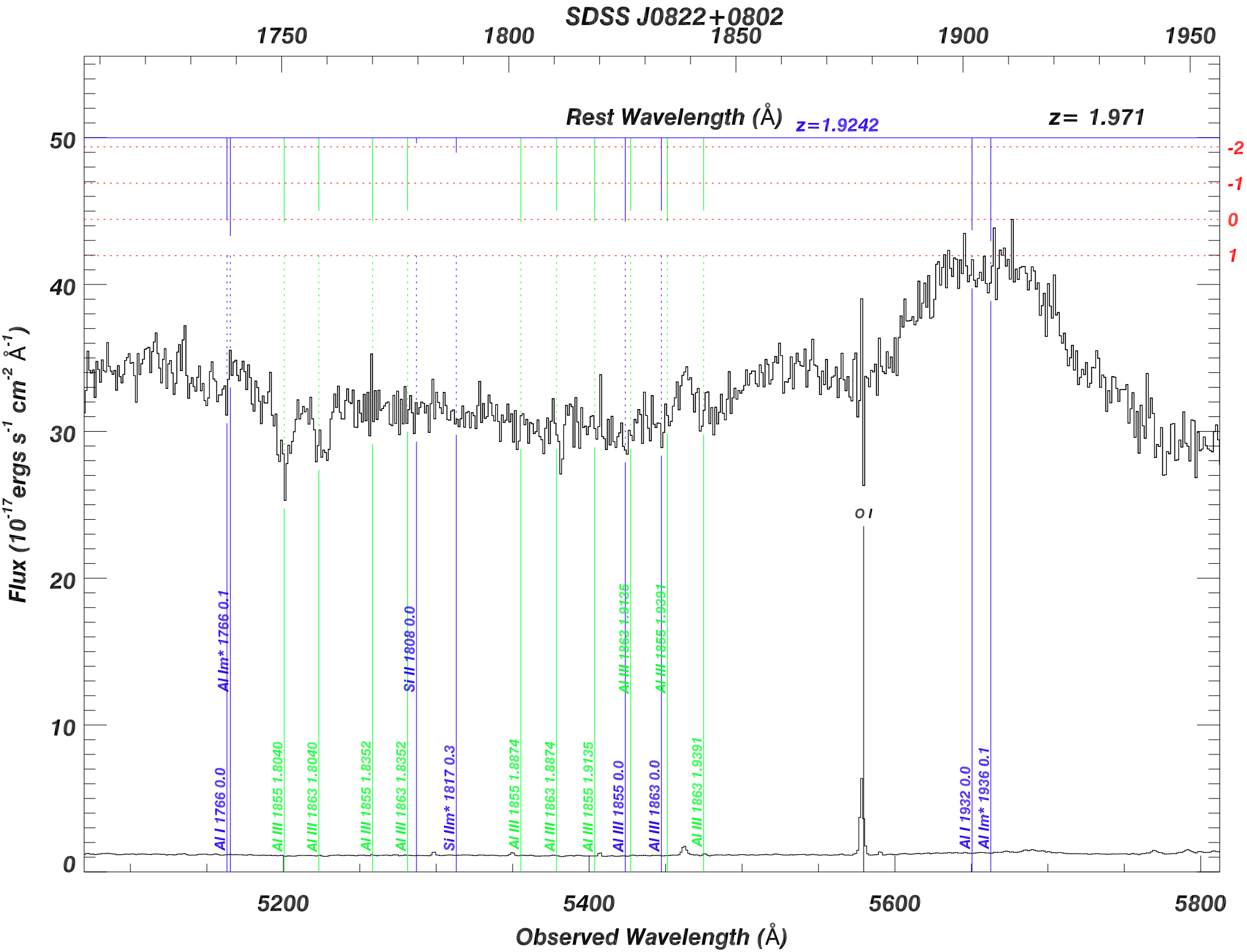
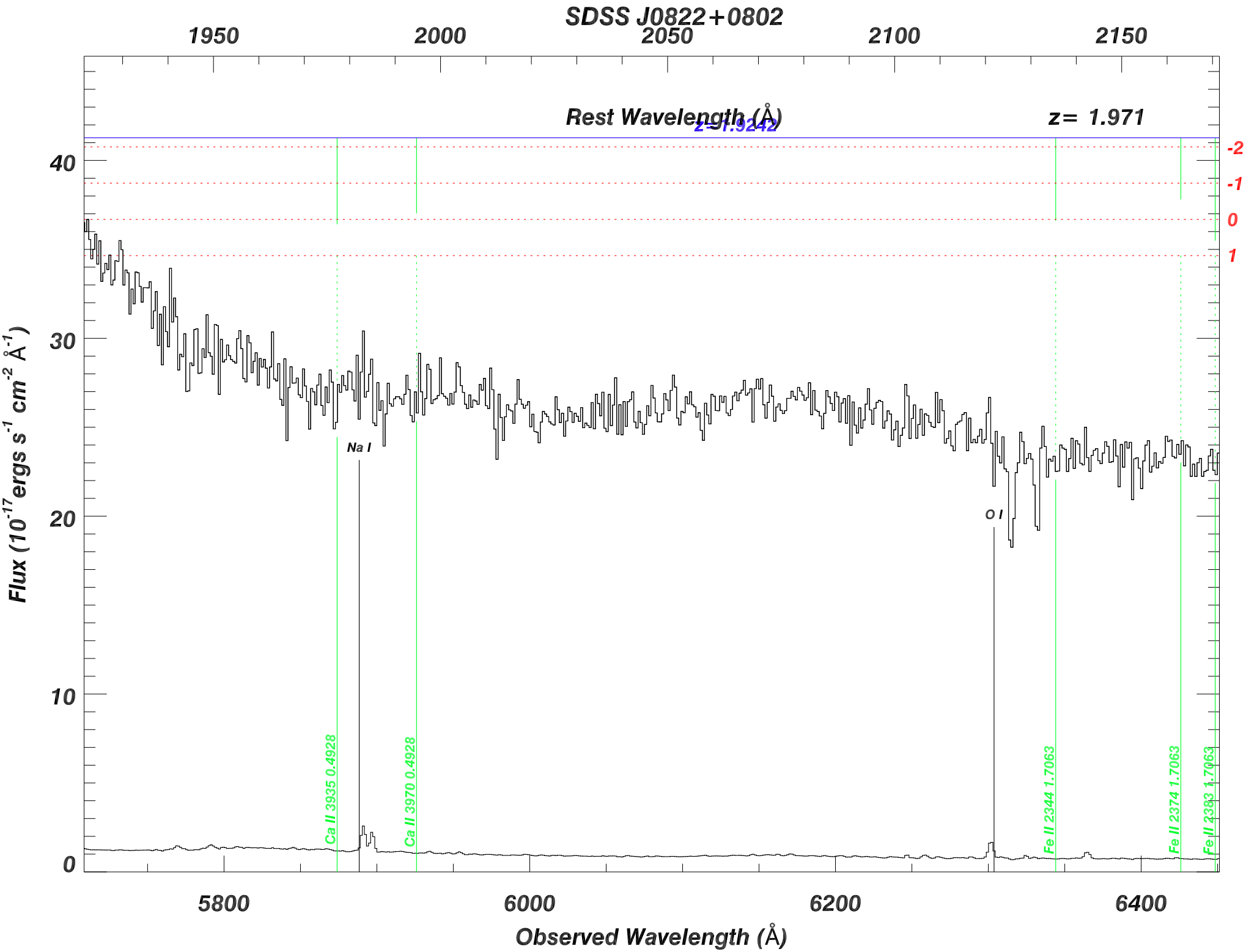
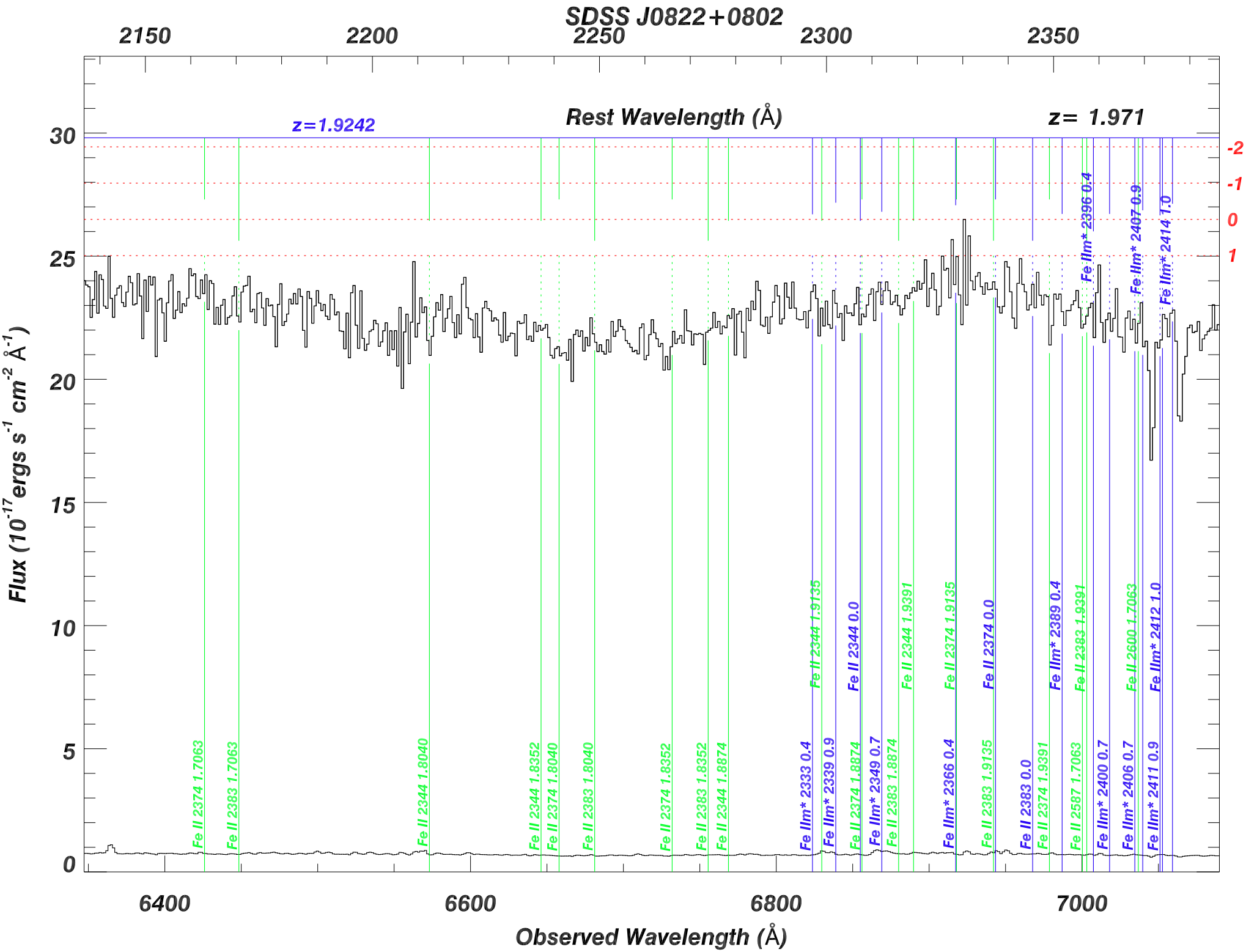

SDSS J0822+0802
1500
2000
2500
3000
Rest Wavelength (Å)
z= 1.971
60
40
20
0
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
4000
5000
6000
7000
8000
9000
Observed Wavelength (Å)

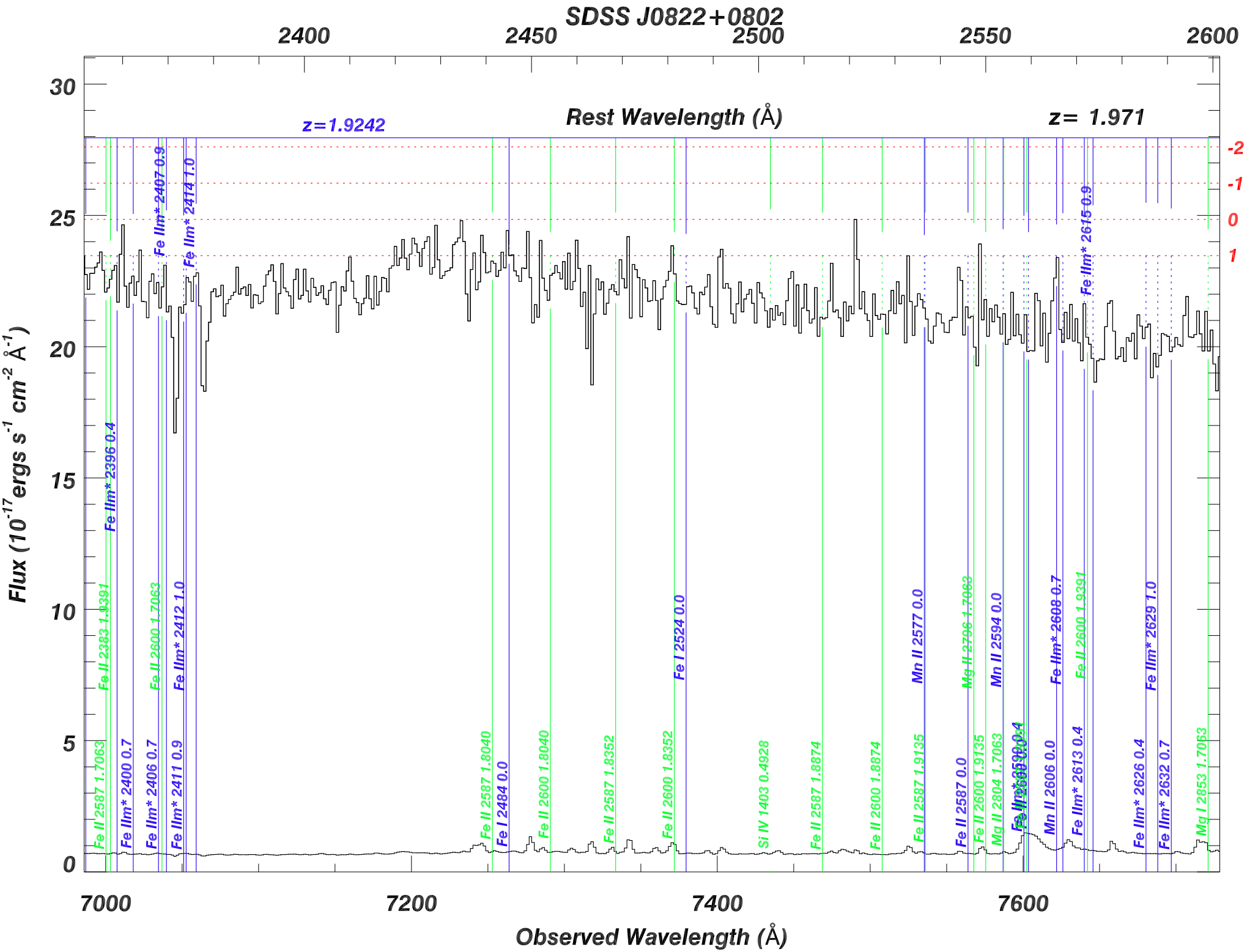

SDSS J0822+0802
Rest Wavelength (Å)
z= 1.971
z= 1.9242
Observed Wavelength (Å)
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
1300
1350
1400
1450
1500
3800
4000
4200
4400
0
20
40
60
-2
-1
0
1
Si IV 1394 1.8040
C IIm* 1336 0.06
Mg II 2796 0.4928
Mg II 2804 0.4928
Si II 1527 1.9391
C II 1335 1.9135
C II 1335 0.0
C IV 1551 1.7063
Si IV 1394 1.9135
Si IV 1394 0.0
Si IV 1403 1.9135
Si IV 1403 0.0
C IV 1551 1.8352
C IV 1548 1.8874
C IV 1548 1.8352
C IV 1551 1.8040
Si IIm* 1533 0.3
C IV 1548 1.9135
C IV 1551 1.9135
Fe II 1608 1.8040
C IV 1548 0.0
Al II 1671 1.7063
C IV 1551 0.0
Ca II
Ca II
Si II 1527 1.7063
Mg I 2853 0.4928
Si II 1527 1.8040
Si II 1527 1.8352
Si II 1527 1.8874
Si II 1527 1.9135
Si II 1527 0.0
C IV 1551 1.8874
C IV 1548 1.7063
Si IV 1403 1.9391
Si IV 1394 1.9391
Si IV 1403 1.8874
Si IV 1394 1.8874
Si IV 1403 1.8352
Si IV 1394 1.8352
Si IV 1403 1.8040
C II 1335 1.9391
Fe II 2600 0.4928
Fe II 2587 0.4928
C II 1335 1.8874
Si IIm* 1309 0.3
Si II 1304 0.0
O I 1302 0.0
Si IV 1403 1.7063

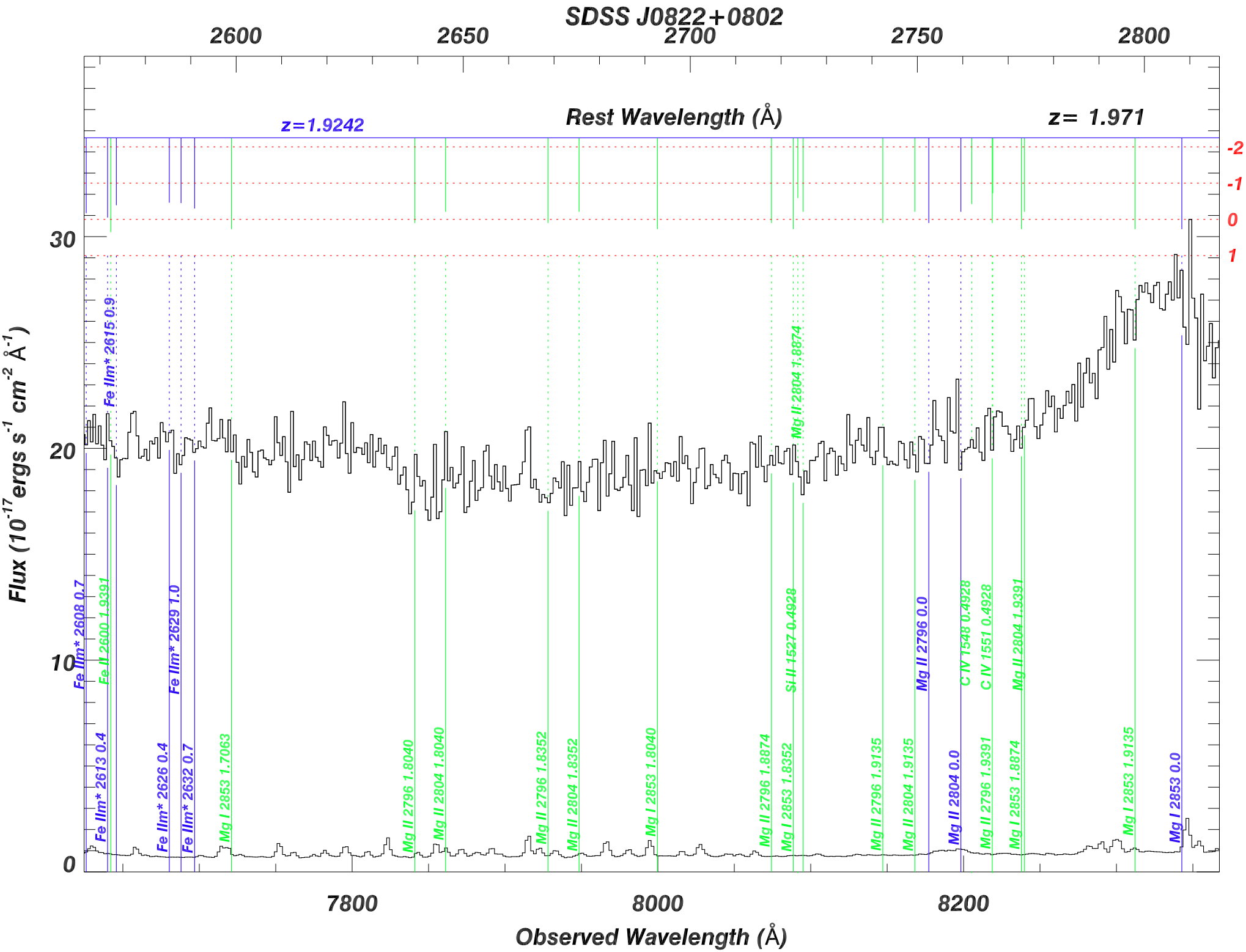

SDSS J0822+0802
Rest Wavelength (Å)
z = 1.971
z=1.9242
Observed Wavelength (Å)
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
1500
1550
1600
1650
1700
4600
4800
5000
0
20
40
60
80
-2
-1
0
1
Si II 1527 1.9135
Si II 1527 0.0
C IV 1551 1.8874
C IV 1548 1.8874
Si II 1527 1.9391
Si IIm* 1533 0.3
Fe II 1608 1.8040
C IV 1548 1.9135
C IV 1551 1.9135
Al II 1671 1.7063
C IV 1548 0.0
C IV 1551 0.0
C IV 1548 1.9391
C IV 1551 1.9391
C Im* 1561 0.04
C I 1560 0.0
Fe II 1608 1.8352
Fe II 1608 1.8874
Fe II 1608 1.9135
Al II 1671 1.8040
Fe II 1608 0.0
Fe II 1608 1.9391
Al II 1671 1.8352
Al II 1671 1.8874
C Im* 1657 0.04
C I 1657 0.0
Al II 1671 1.9135
Al II 1671 0.0
Al II 1671 1.9391
Al III 1855 1.7063
Al III 1863 1.7063
Al I 1766 0.0
Al Im* 1766 0.1

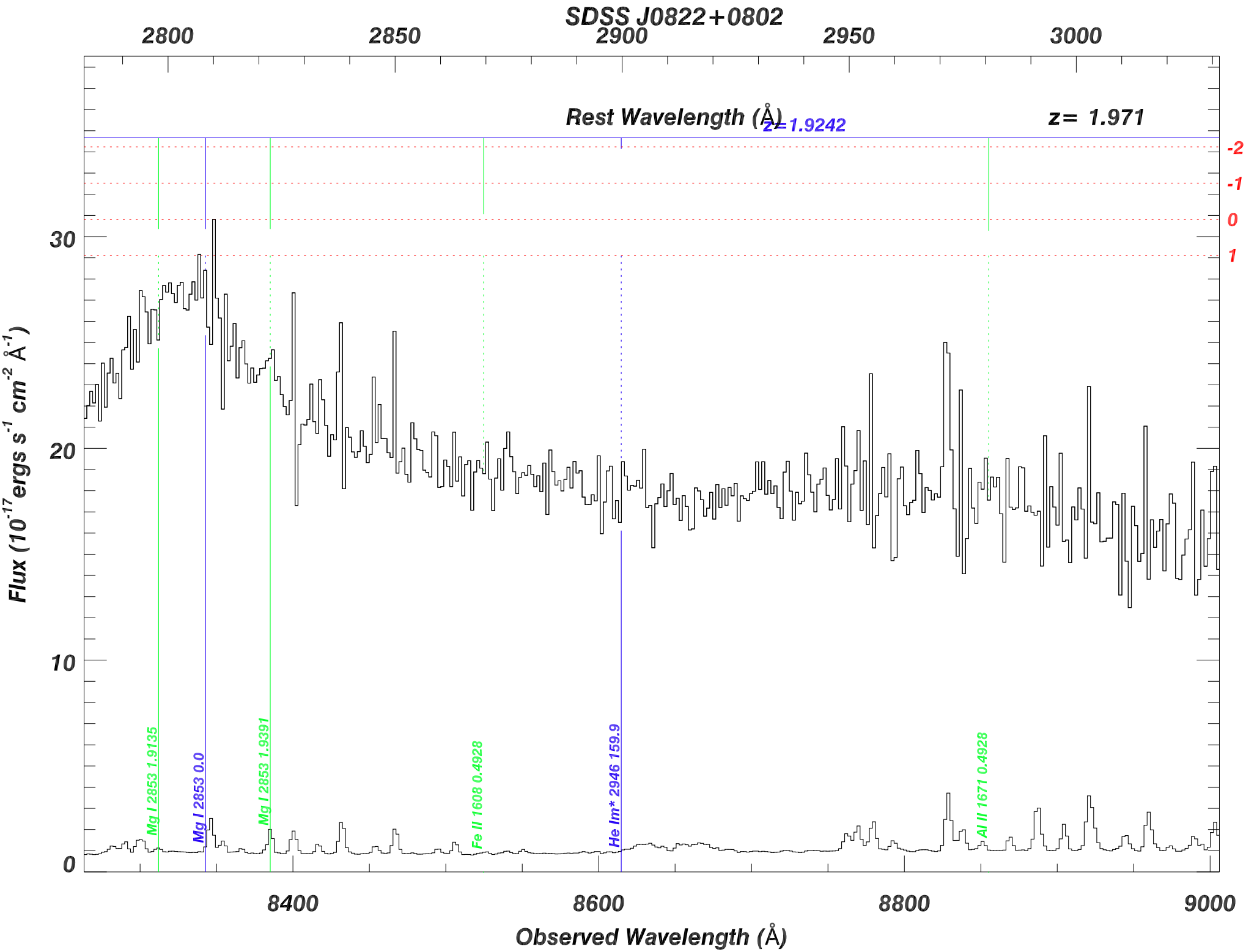

SDSS J0822+0802
Rest Wavelength (Å)
z=1.9242
z= 1.971
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
Observed Wavelength (Å)
Al I 1766 0.0
Al Im* 1766 0.1
Al III 1855 1.8040
Al III 1863 1.8040
Al III 1855 1.8352
Al III 1863 1.8352
Si II 1808 0.0
Si IIm* 1817 0.3
Al III 1855 1.8874
Al III 1863 1.8874
Al III 1855 1.9135
Al III 1863 1.9135
Al III 1855 0.0
Al III 1863 0.0
Al III 1855 1.9391
Al III 1863 1.9391
O I
Al I 1932 0.0
Al Im* 1936 0.1
-2
-1
0
1


SDSS J0822+0802
Rest Wavelength (Å)
z= 1.971
z=1.9242
1950
2000
2050
2100
2150
-2
-1
0
1
40
30
20
10
0
Na I
O I
Ca II 3935 0.4928
Ca II 3970 0.4928
Fe II 2344 1.7063
Fe II 2374 1.7063
Fe II 2383 1.7063
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
5800
6000
6200
6400
Observed Wavelength (Å)


SDSS J0822+0802
Rest Wavelength (Å)
z=1.9242
z= 1.971
Observed Wavelength (Å)
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
Fe II 2374 1.7063
Fe II 2383 1.7063
Fe II 2344 1.8040
Fe II 2344 1.8352
Fe II 2374 1.8040
Fe II 2383 1.8040
Fe II 2374 1.8352
Fe II 2383 1.8352
Fe II 2344 1.8874
Fe IIm* 2333 0.4
Fe II 2344 1.9135
Fe IIm* 2339 0.9
Fe II 2374 1.8874
Fe II 2344 0.0
Fe IIm* 2349 0.7
Fe II 2383 1.8874
Fe II 2344 1.9391
Fe IIm* 2366 0.4
Fe II 2374 1.9135
Fe II 2383 1.9135
Fe II 2374 0.0
Fe II 2383 0.0
Fe II 2374 1.9391
Fe IIm* 2389 0.4
Fe II 2587 1.7063
Fe II 2383 1.9391
Fe IIm* 2396 0.4
Fe IIm* 2400 0.7
Fe IIm* 2406 0.7
Fe II 2600 1.7063
Fe IIm* 2407 0.9
Fe IIm* 2411 0.9
Fe IIm* 2412 1.0
Fe IIm* 2414 1.0


SDSS J0822+0802
Rest Wavelength (Å)
z=1.9242
z= 1.971
Observed Wavelength (Å)
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
Fe II 2587 1.7063
Fe II* 2396 0.4
Fe II 2383 1.9391
Fe II* 2400 0.7
Fe II* 2406 0.7
Fe II* 2407 0.9
Fe II 2600 1.7063
Fe II* 2411 0.9
Fe II* 2412 1.0
Fe II* 2414 1.0
Fe II 2587 1.8040
Fe I 2484 0.0
Fe II 2600 1.8040
Fe II 2587 1.8352
Fe II 2600 1.8352
Fe I 2524 0.0
Si IV 1403 0.4928
Fe II 2587 1.8874
Fe II 2600 1.8874
Fe II 2587 1.9135
Mn II 2577 0.0
Fe II 2587 0.0
Mg II 2796 1.7063
Fe II 2600 1.9135
Mg II 2804 1.7063
Mn II 2594 0.0
Mn II 2606 0.0
Fe II* 2608 0.7
Fe II 2600 1.9391
Fe II* 2613 0.4
Fe II* 2615 0.9
Fe II* 2626 0.4
Fe II* 2629 1.0
Fe II* 2632 0.7
Mg I 2853 1.7063


SDSS J0822+0802
Rest Wavelength (Å)
z=1.9242
z= 1.971
Observed Wavelength (Å)
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
Fe IIm* 2608 0.7
Fe II 2600 1.9391
Fe IIm* 2615 0.9
Fe IIm* 2613 0.4
Fe IIm* 2626 0.4
Fe IIm* 2629 1.0
Fe IIm* 2632 0.7
Mg I 2853 1.7063
Mg II 2796 1.8040
Mg II 2804 1.8040
Mg II 2796 1.8352
Mg II 2804 1.8352
Mg I 2853 1.8040
Mg II 2796 1.8874
Mg I 2853 1.8352
Si II 1527 0.4928
Mg II 2804 1.8874
Mg II 2796 1.9135
Mg II 2804 1.9135
Mg II 2796 0.0
Mg II 2804 0.0
C IV 1548 0.4928
C IV 1551 0.4928
Mg II 2796 1.9391
Mg II 2804 1.9391
Mg I 2853 1.8874
Mg I 2853 1.9135
Mg I 2853 0.0


SDSS J0822+0802
Rest Wavelength (Å)
z= 1.971
z=1.9242
2800
2850
2900
2950
3000
-2
-1
0
1
30
20
10
0
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
Mg I 2853 1.9135
Mg I 2853 0.0
Mg I 2853 1.9391
Fe II 1608 0.4928
He Im* 2946 159.9
Al II 1671 0.4928
8400
8600
8800
9000
Observed Wavelength (Å)