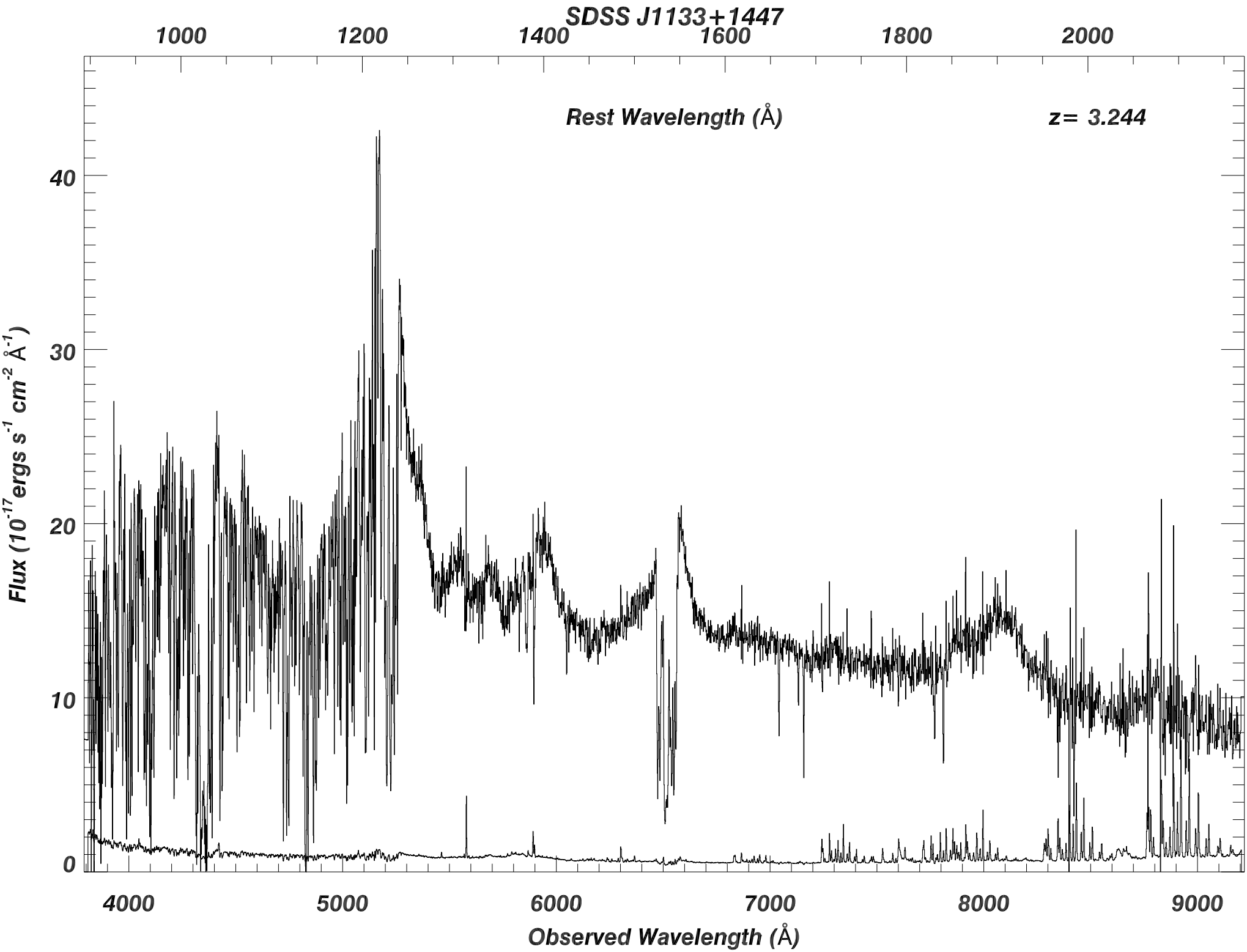
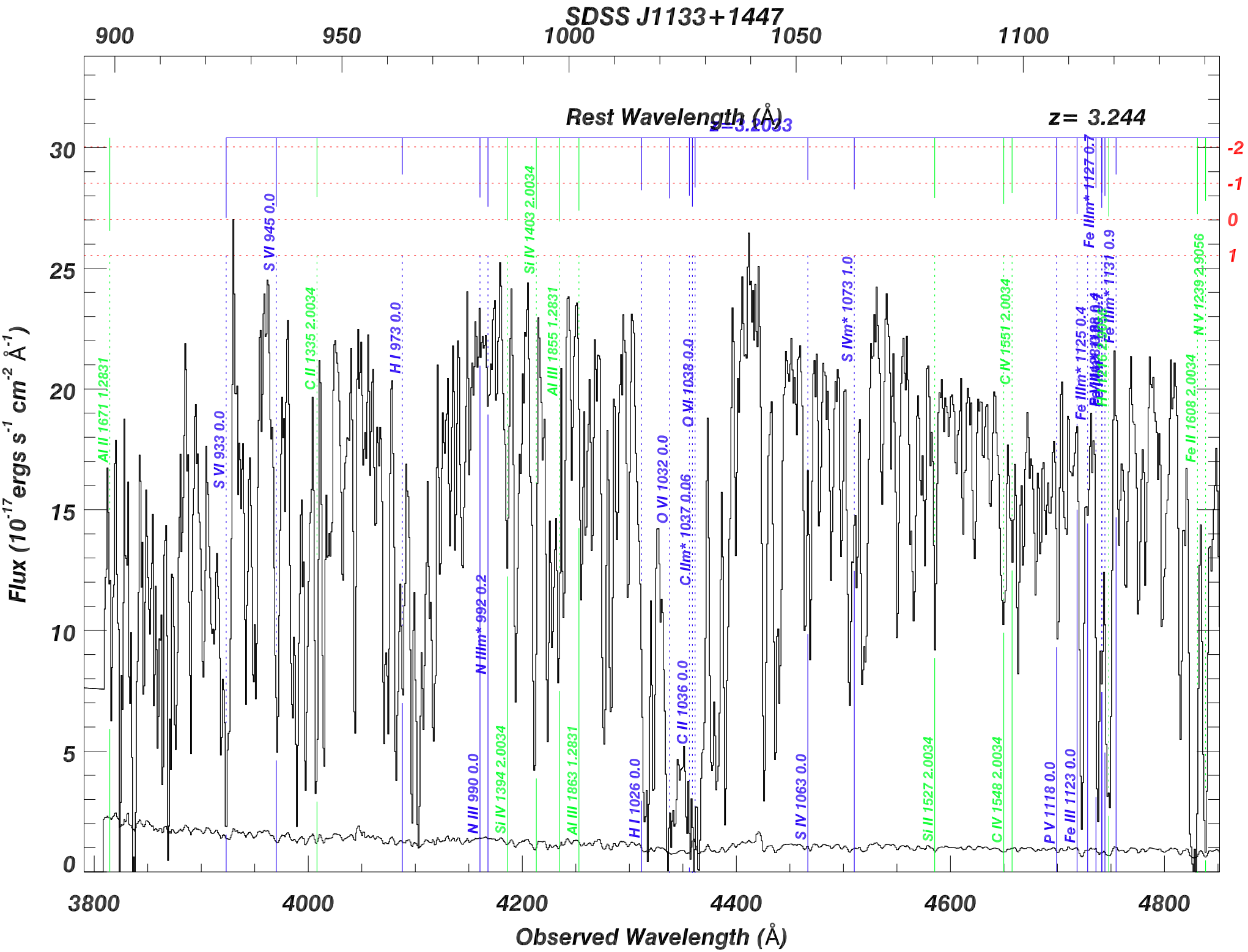
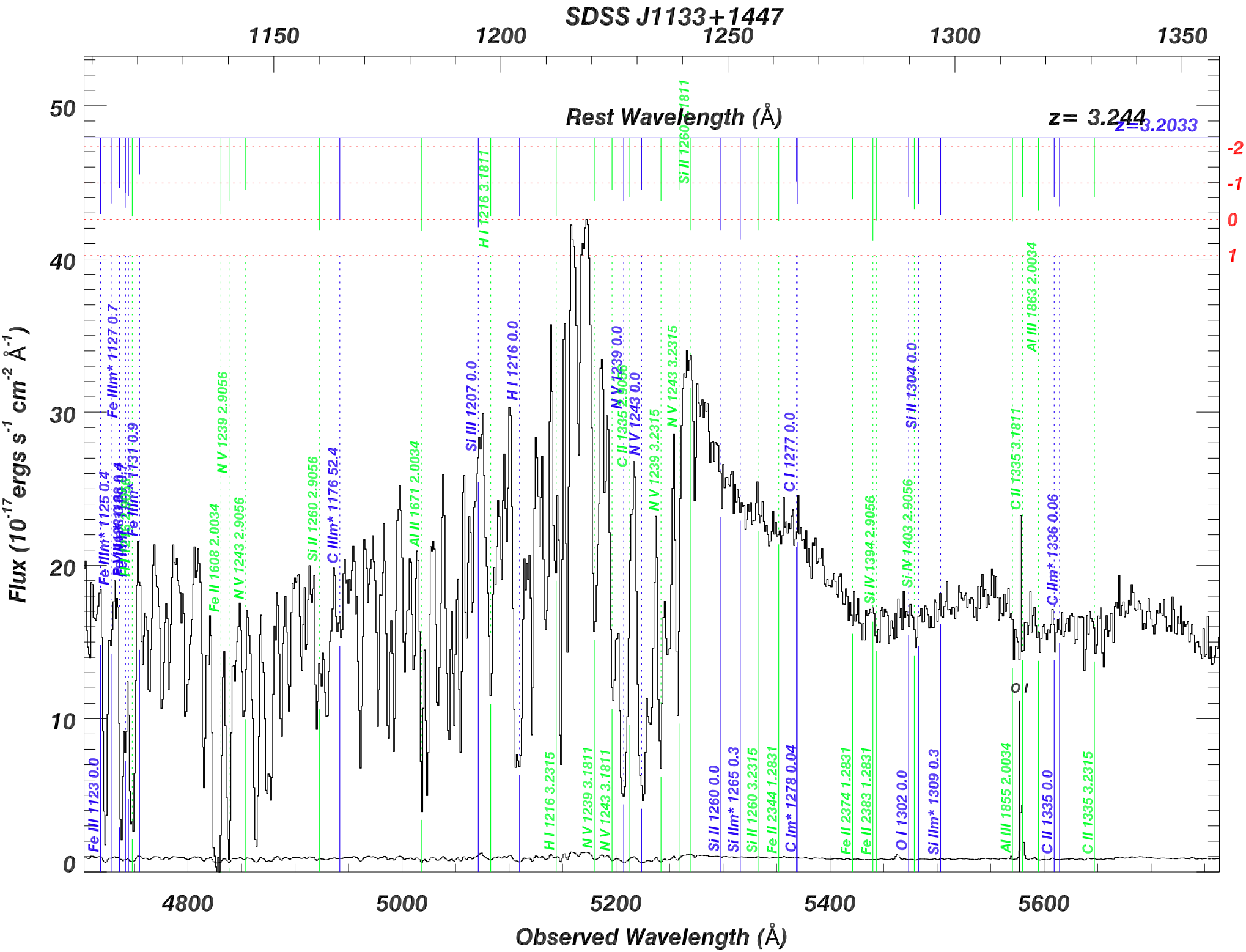
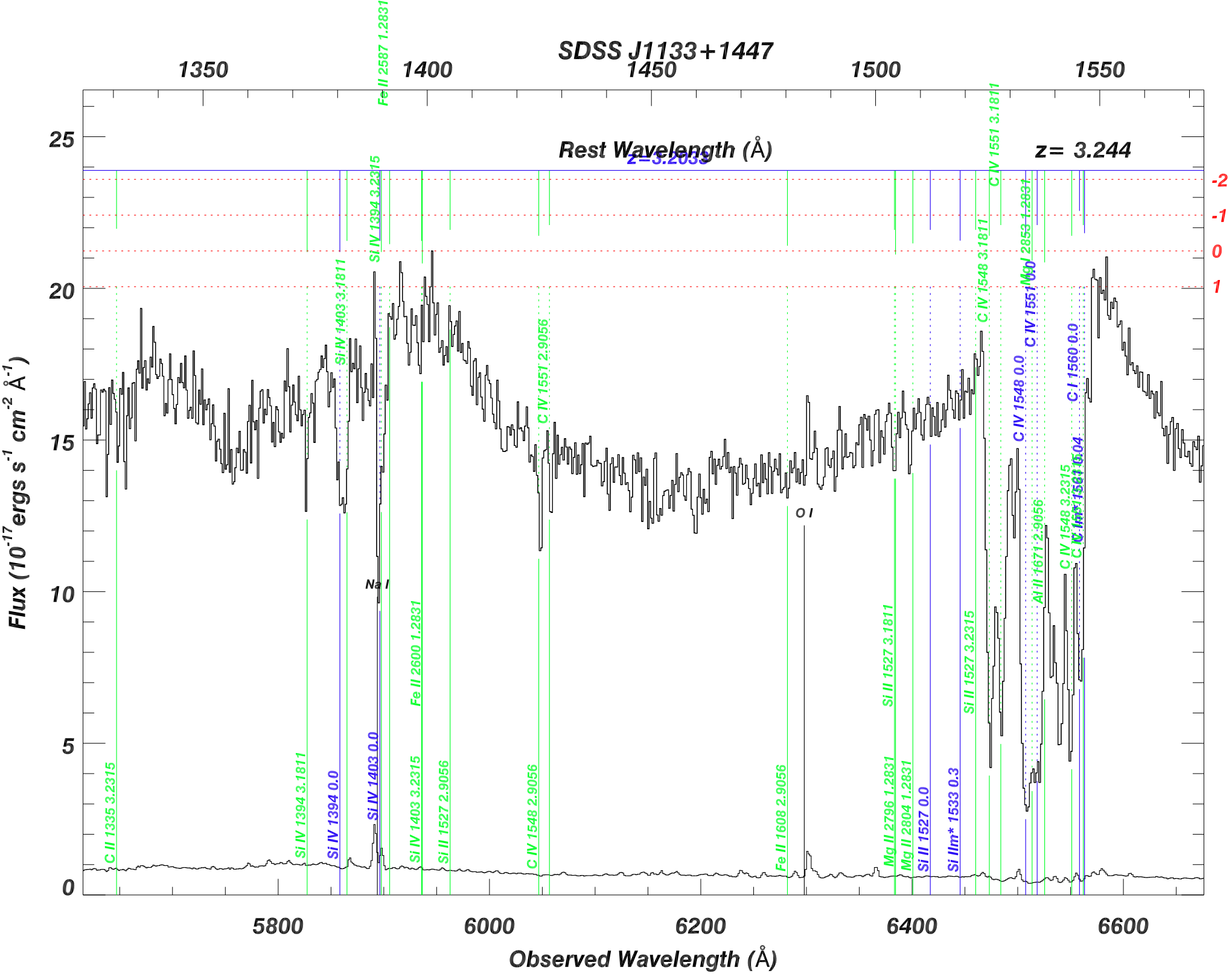
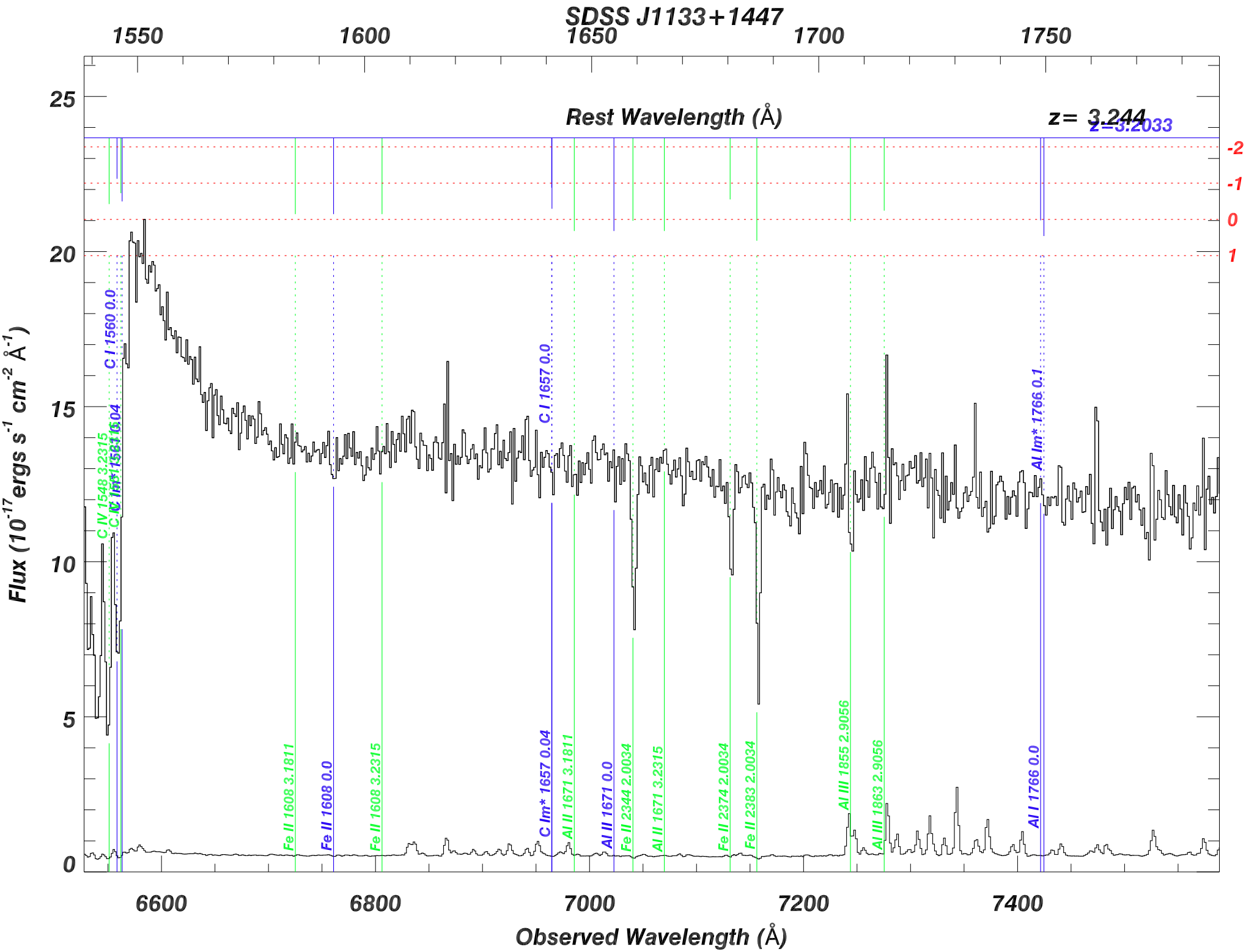
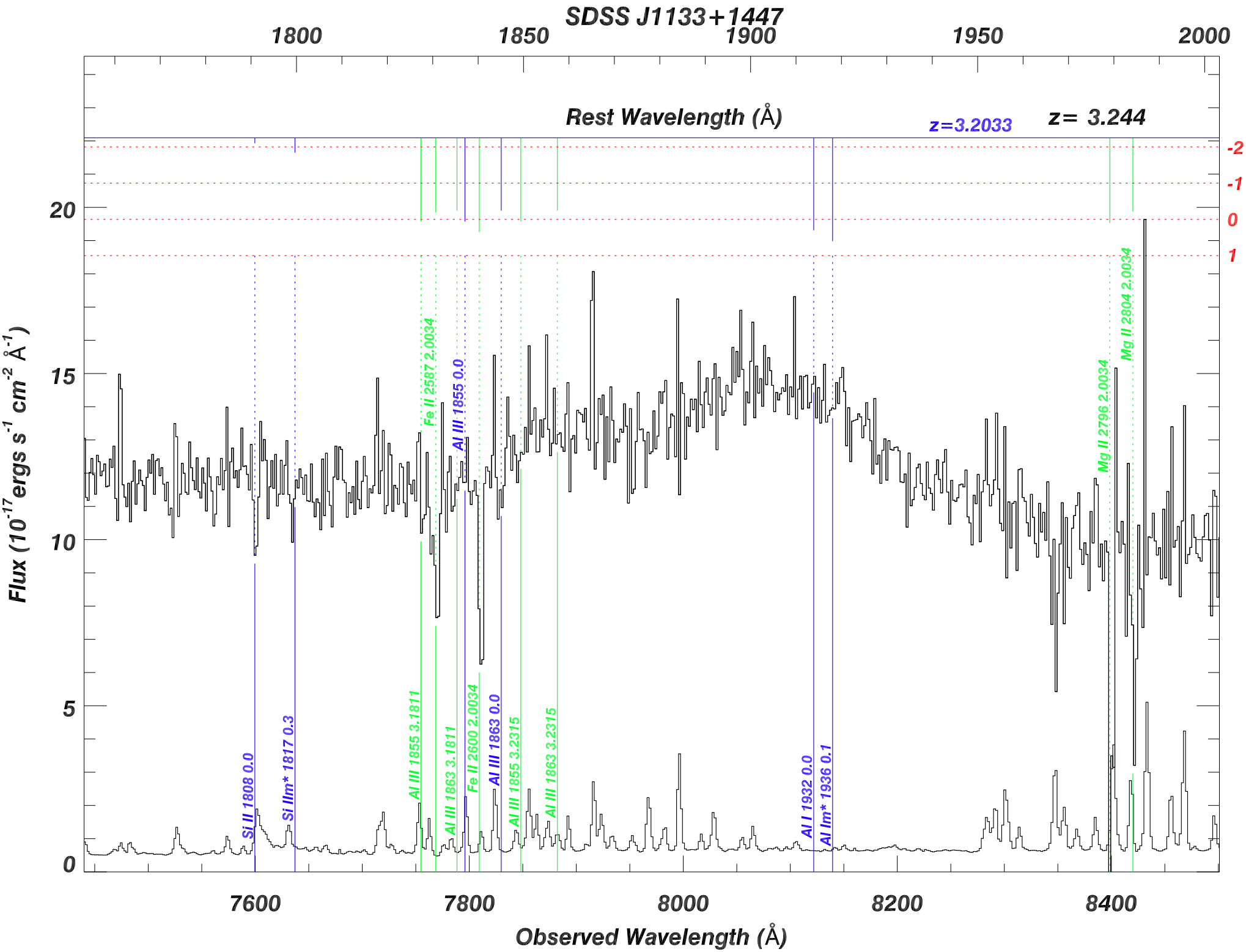

SDSS J1133+1447
1000
1200
1400
1600
1800
2000
Rest Wavelength (Å)
z= 3.244
40
30
20
10
0
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
4000
5000
6000
7000
8000
9000
Observed Wavelength (Å)

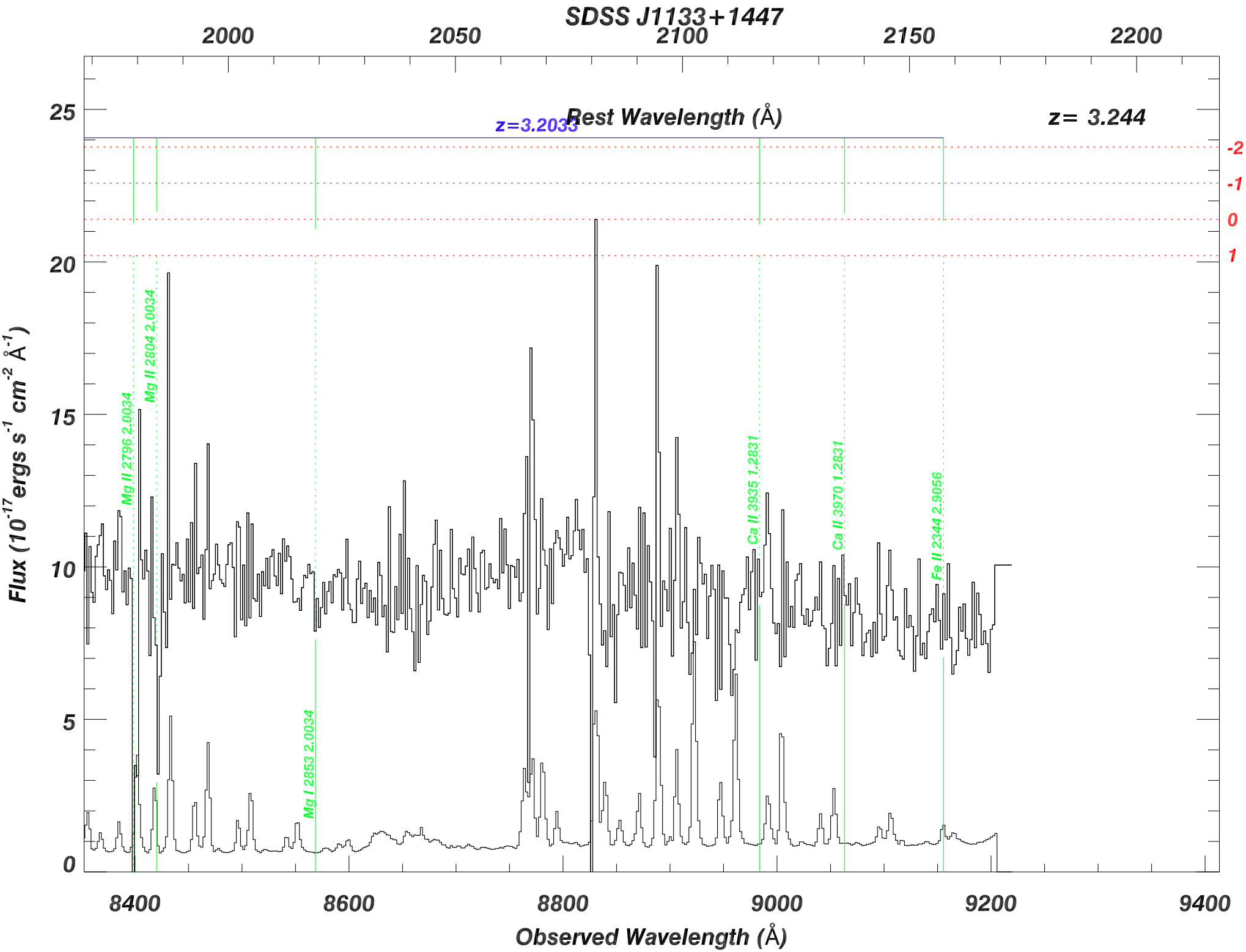

SDSS J1133+1447
Rest Wavelength (Å)
z= 3.244
z=3.2033
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
Observed Wavelength (Å)
Al II 1671 1.2831
S VI 933 0.0
S VI 945 0.0
C II 1335 2.0034
H I 973 0.0
N III 990 0.0
N IIIm* 992 0.2
Si IV 1394 2.0034
Si IV 1403 2.0034
Al III 1855 1.2831
Al III 1863 1.2831
H I 1026 0.0
O VI 1032 0.0
C II 1036 0.0
C IIm* 1037 0.06
O VI 1038 0.0
S IV 1063 0.0
S IVm* 1073 1.0
Si II 1527 2.0034
C IV 1548 2.0034
C IV 1551 2.0034
P V 1118 0.0
Fe III 1123 0.0
Fe IIIm* 1125 0.4
Fe IIIm* 1127 0.7
Fe IIIm* 1131 0.9
Fe II 1608 2.0034
N V 1239 2.9056


SDSS J1133+1447
Rest Wavelength (Å)
z= 3.244
z=3.2033
Observed Wavelength (Å)
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
Fe III 1123 0.0
Fe IIIm* 1125 0.4
Fe IIIm* 1127 0.7
Fe IIIm* 1131 0.9
Fe II 1608 2.0034
N V 1239 2.9056
N V 1243 2.9056
Si II 1260 2.9056
C IIIm* 1176 52.4
Al II 1671 2.0034
Si III 1207 0.0
H I 1216 0.0
H I 1216 3.1811
H I 1216 3.2315
N V 1239 3.1811
N V 1243 3.1811
C II 1335 0.0
N V 1239 0.0
N V 1243 0.0
N V 1239 3.2315
N V 1243 3.2315
Si II 1260 3.1811
Si II 1260 0.0
Si IIm* 1265 0.3
Si II 1260 3.2315
Fe II 2344 1.2831
C Im* 1278 0.04
C I 1277 0.0
Fe II 2374 1.2831
Fe II 2383 1.2831
Si IV 1394 2.9056
O I 1302 0.0
Si IV 1403 2.9056
Si II 1304 0.0
Si IIm* 1309 0.3
Al III 1855 2.0034
C II 1335 3.1811
O I
Al III 1863 2.0034
C II 1335 0.0
C IIm* 1336 0.06
C II 1335 3.2315
-2
-1
0
1


SDSS J1133+1447
Rest Wavelength (Å)
z= 3.244
z=3.2033
Observed Wavelength (Å)
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
1350
1400
1450
1500
1550
5800
6000
6200
6400
6600
0
5
10
15
20
25
-2
-1
0
1
Fe II 2587 1.2831
Si IV 1394 3.2315
Si IV 1403 3.1811
C IV 1551 2.9056
C IV 1551 3.1811
C IV 1548 3.1811
Mg I 2853 1.2831
C IV 1551 0.0
C IV 1548 0.0
C I 1560 0.0
C IV 1548 3.2315
C II* 1561 0.04
Al II 1671 2.9056
O I
Na I
Fe II 2600 1.2831
Si II 1527 3.1811
Si II 1527 3.2315
C II 1335 3.2315
Si IV 1394 3.1811
Si IV 1394 0.0
Si IV 1403 0.0
Si IV 1403 3.2315
Si II 1527 2.9056
C IV 1548 2.9056
Fe II 1608 2.9056
Mg II 2796 1.2831
Mg II 2804 1.2831
Si II 1527 0.0
Si II* 1533 0.3


SDSS J1133+1447
Rest Wavelength (Å)
z= 3.244
z=3.2033
Observed Wavelength (Å)
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
C IV 1548 3.2315
C I 1560 0.0
C I* 1561 0.04
Fe II 1608 3.1811
Fe II 1608 0.0
Fe II 1608 3.2315
C I 1657 0.0
C I* 1657 0.04
Al II 1671 3.1811
Al II 1671 0.0
Fe II 2344 2.0034
Al II 1671 3.2315
Fe II 2374 2.0034
Fe II 2383 2.0034
Al III 1855 2.9056
Al III 1863 2.9056
Al I* 1766 0.1
Al I 1766 0.0


SDSS J1133+1447
Rest Wavelength (Å)
z=3.2033
z= 3.244
Si II 1808 0.0
Si IIm* 1817 0.3
Al III 1855 3.1811
Al III 1863 3.1811
Fe II 2587 2.0034
Fe II 2600 2.0034
Al III 1855 0.0
Al III 1863 0.0
Al III 1855 3.2315
Al III 1863 3.2315
Al I 1932 0.0
Al Im* 1936 0.1
Mg II 2796 2.0034
Mg II 2804 2.0034
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
Observed Wavelength (Å)


SDSS J1133+1447
Rest Wavelength (Å)
z= 3.244
z=3.2033
Mg II 2796 2.0034
Mg II 2804 2.0034
Mg I 2853 2.0034
Ca II 3935 1.2831
Ca II 3970 1.2831
Fe II 2344 2.9056
-2
-1
0
1
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
Observed Wavelength (Å)