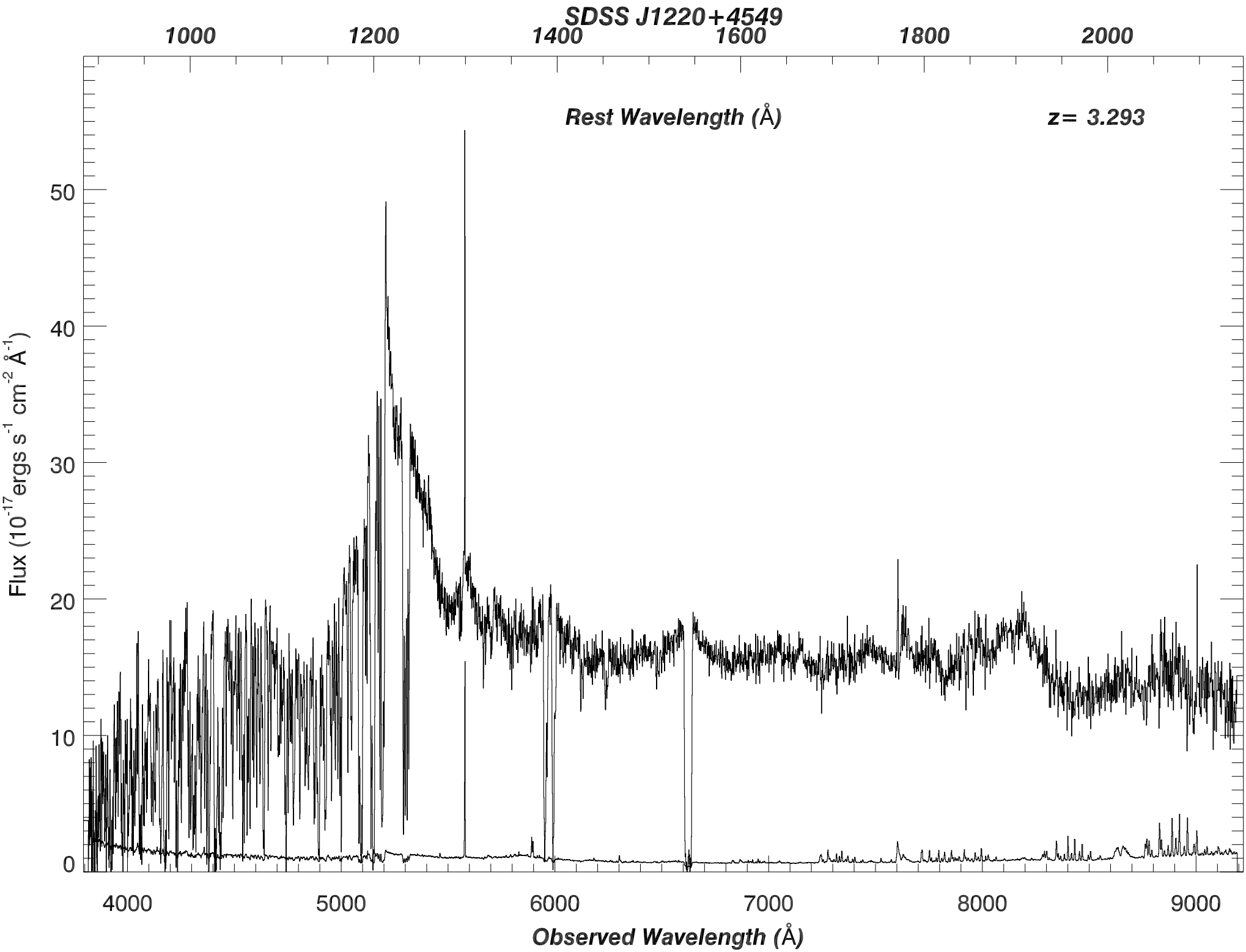
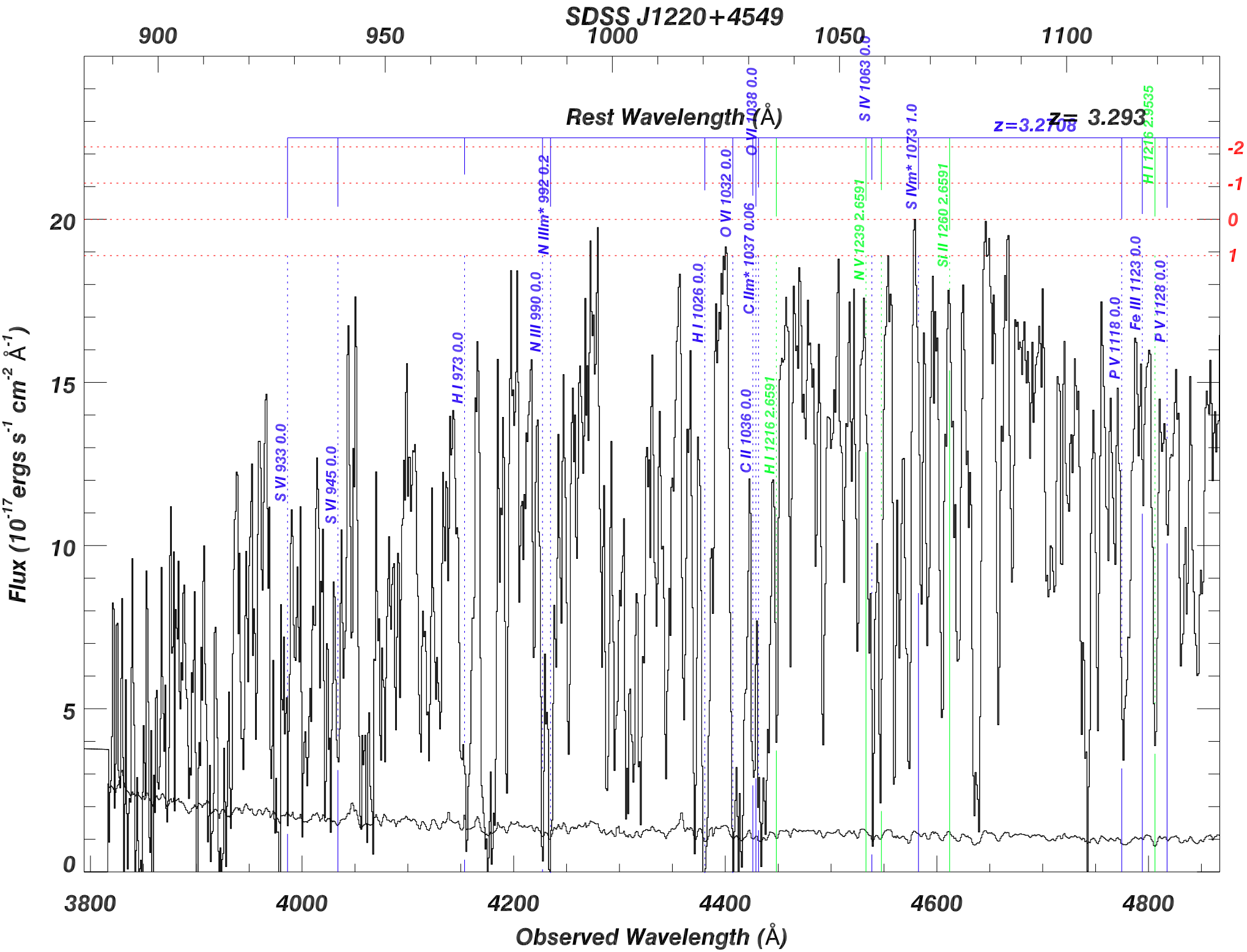
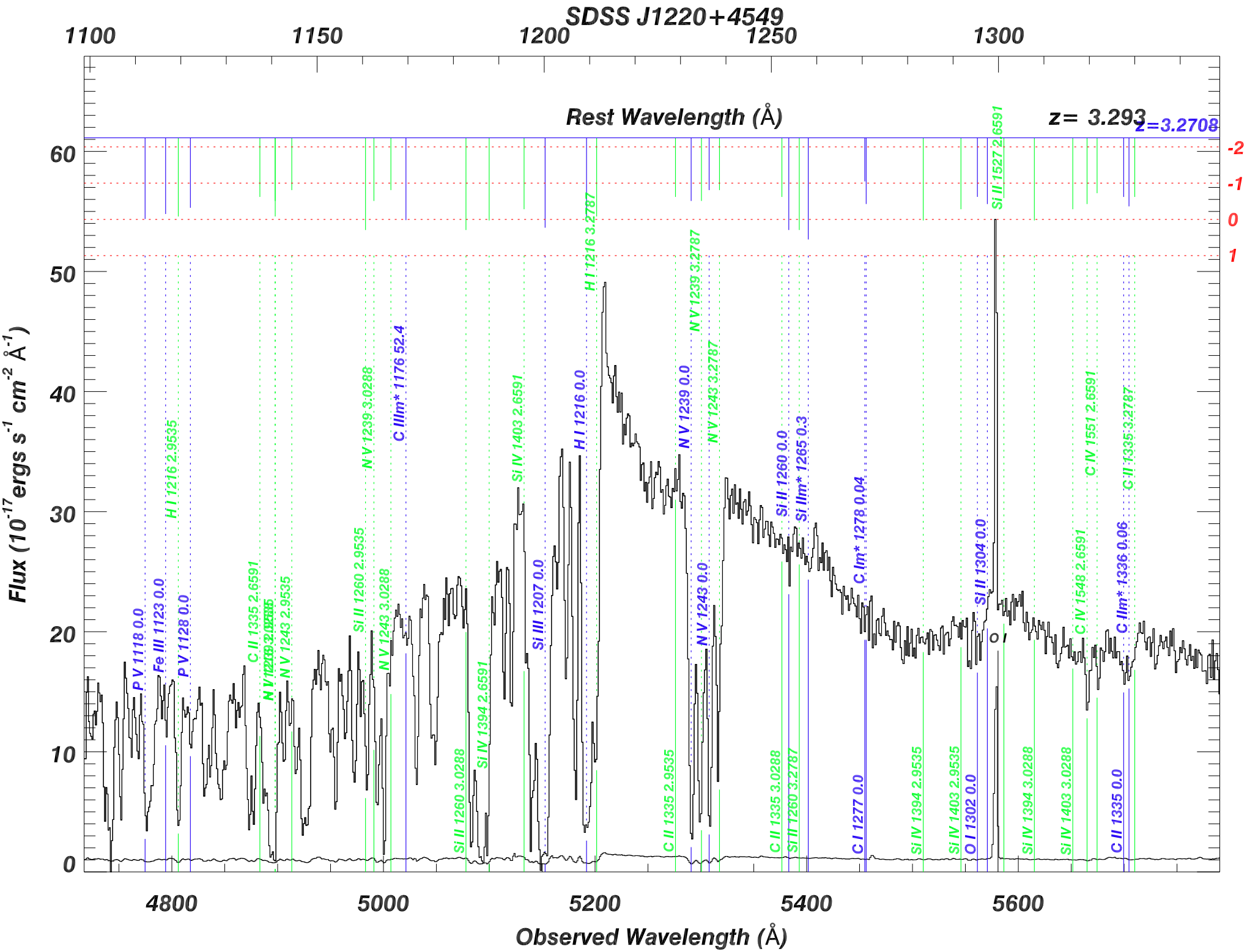
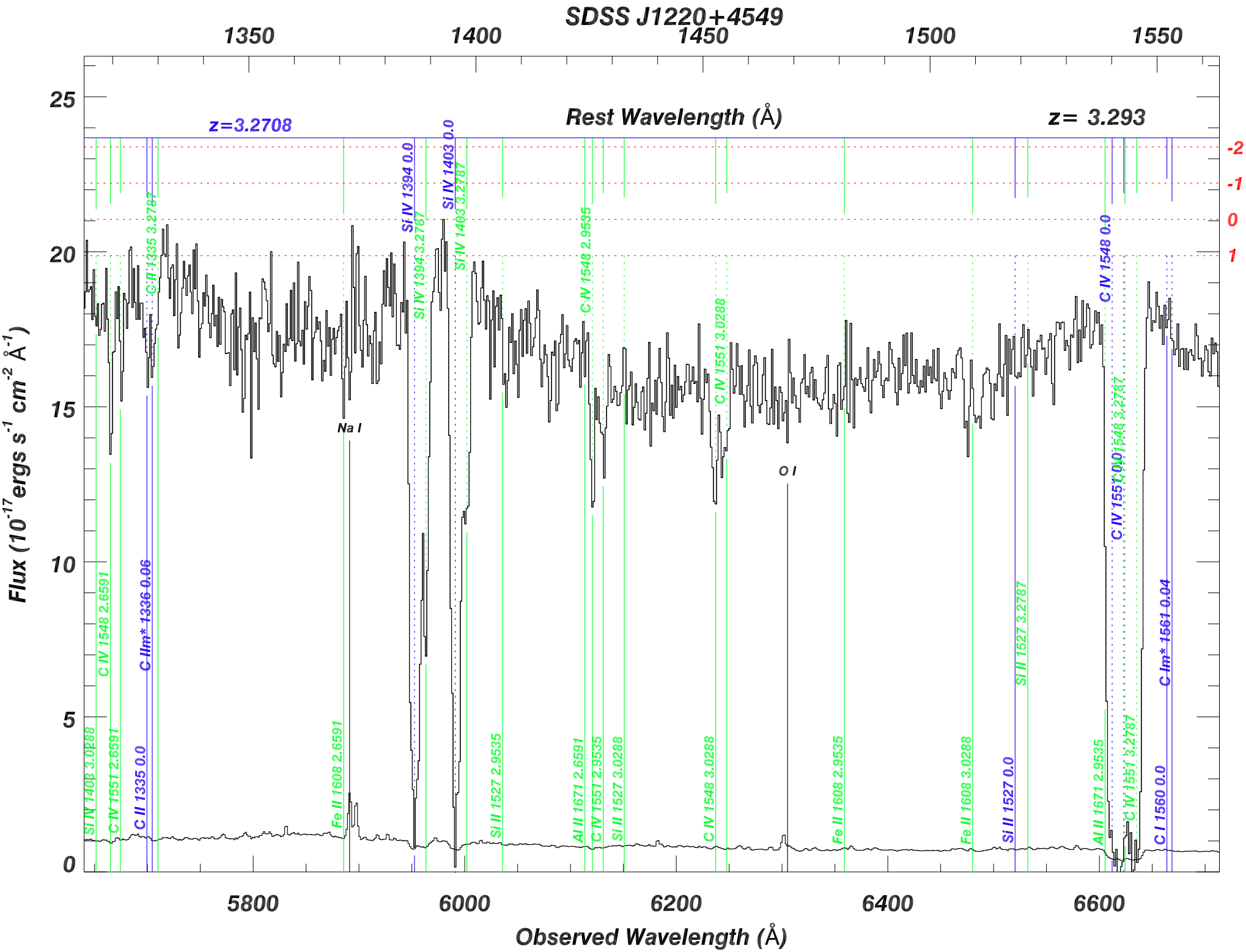
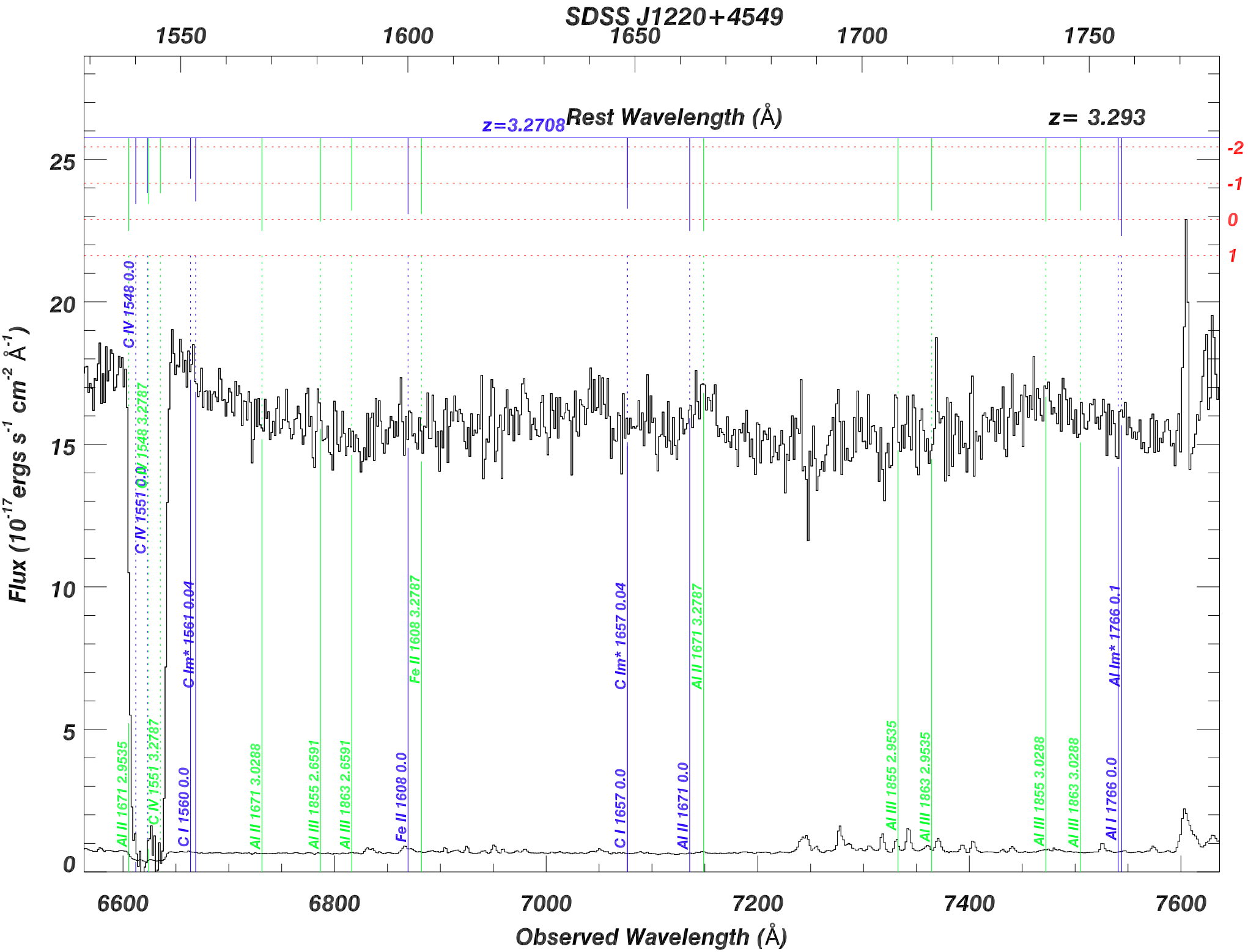
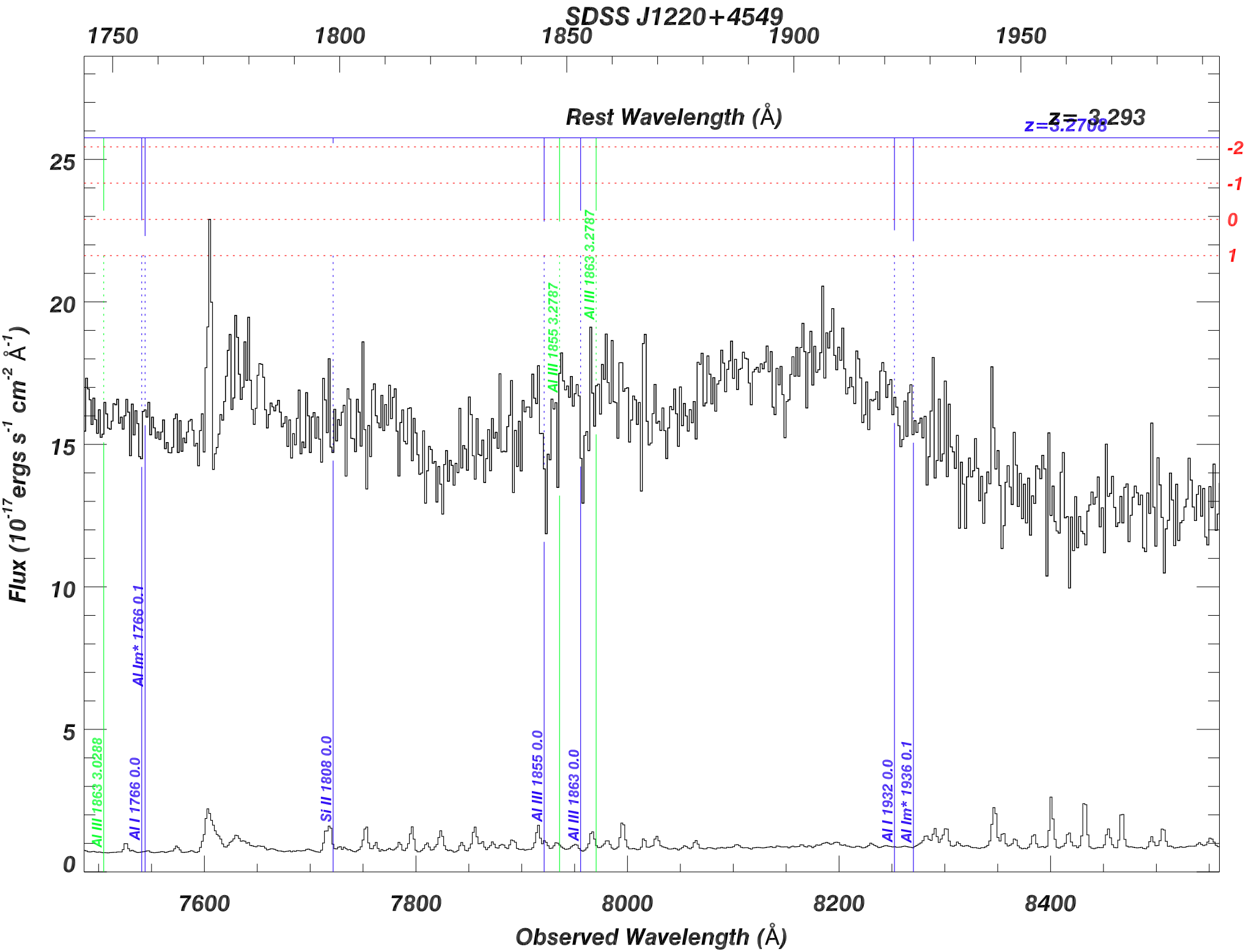

SDSS J1220+4549
1000
1200
1400
1600
1800
2000
Rest Wavelength (Å)
z= 3.293
50
40
30
20
10
0
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
4000
5000
6000
7000
8000
9000
Observed Wavelength (Å)

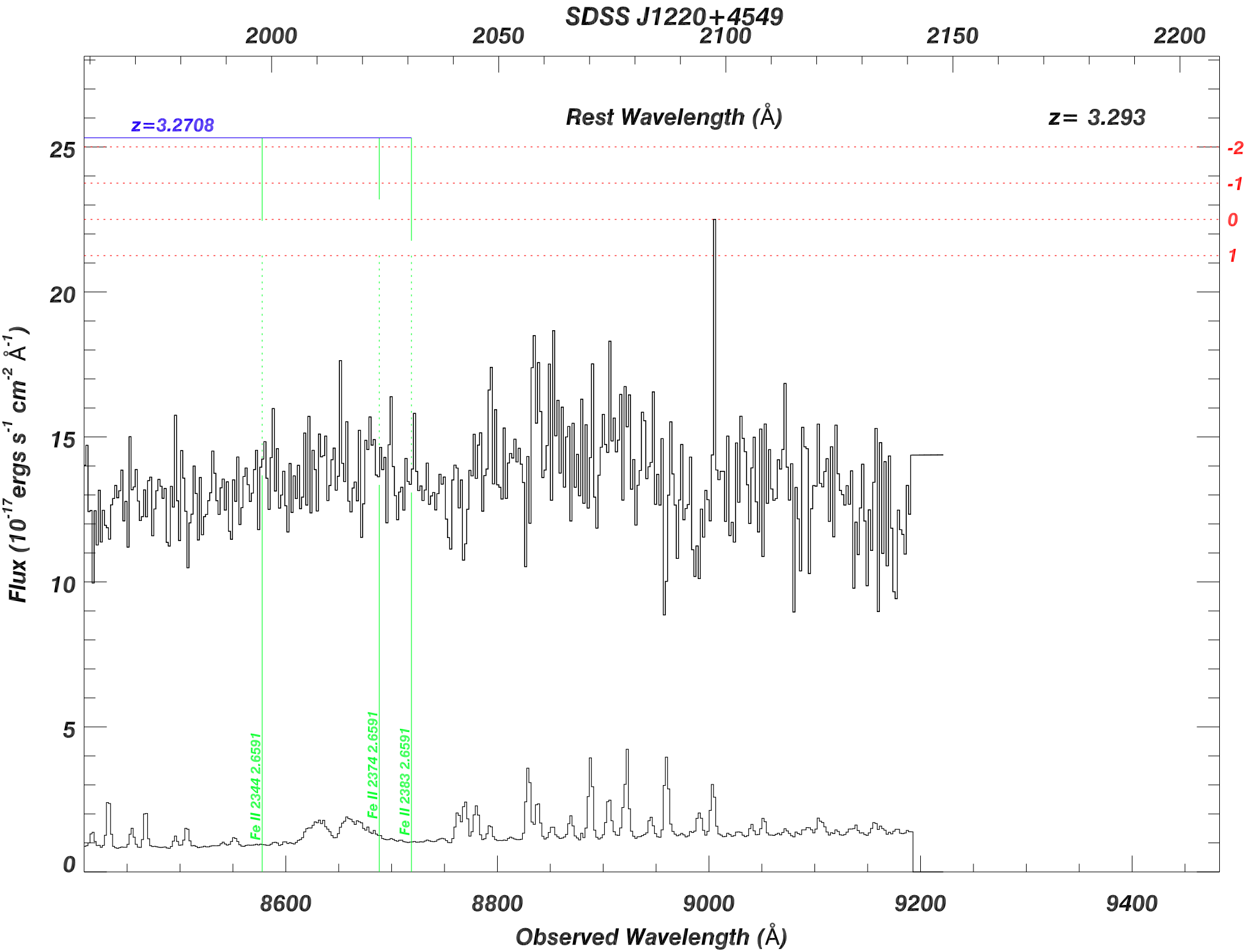

SDSS J1220+4549
Rest Wavelength (Å)
z= 3.293
z=3.2708
900
950
1000
1050
1100
S VI 933 0.0
S VI 945 0.0
H I 973 0.0
N III 990 0.0
N IIIm* 992 0.2
H I 1026 0.0
O VI 1032 0.0
C II 1036 0.0
C IIm* 1037 0.06
O VI 1038 0.0
H I 1216 2.6591
N V 1239 2.6591
S IV 1063 0.0
S IVm* 1073 1.0
Si II 1260 2.6591
P V 1118 0.0
Fe III 1123 0.0
P V 1128 0.0
H I 1216 2.9535
-2
-1
0
1
20
15
10
5
0
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
3800
4000
4200
4400
4600
4800
Observed Wavelength (Å)


SDSS J1220+4549
Rest Wavelength (Å)
z= 3.293
z=3.2708
Observed Wavelength (Å)
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
P V 1118 0.0
Fe III 1123 0.0
H I 1216 2.9535
P V 1128 0.0
C II 1335 2.6591
N V 1243 2.9535
Si II 1260 2.9535
N V 1239 3.0288
N V 1243 3.0288
C IIIm* 1176 52.4
Si II 1260 3.0288
Si IV 1394 2.6591
Si IV 1403 2.6591
Si III 1207 0.0
H I 1216 0.0
H I 1216 3.2787
C II 1335 2.9535
N V 1239 0.0
N V 1239 3.2787
N V 1243 0.0
N V 1243 3.2787
C II 1335 3.0288
Si II 1260 0.0
Si II 1260 3.2787
Si IIm* 1265 0.3
C I 1277 0.0
C Im* 1278 0.04
Si IV 1394 2.9535
Si IV 1403 2.9535
O I 1302 0.0
Si II 1304 0.0
O I
Si II 1527 2.6591
Si IV 1394 3.0288
Si IV 1403 3.0288
C IV 1548 2.6591
C IV 1551 2.6591
C II 1335 0.0
C IIm* 1336 0.06
C II 1335 3.2787
-2
-1
0
1


SDSS J1220+4549
Rest Wavelength (Å)
z=3.2708
z= 3.293
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
Observed Wavelength (Å)
Si IV 1403 3.0288
C IV 1548 2.6591
C IV 1551 2.6591
C II 1335 0.0
C IIm* 1336 0.06
C II 1335 3.2787
Na I
Fe II 1608 2.6591
Si IV 1394 0.0
Si IV 1394 3.2787
Si IV 1403 0.0
Si IV 1403 3.2787
Si II 1527 2.9535
C IV 1548 2.9535
Al II 1671 2.6591
C IV 1551 2.9535
Si II 1527 3.0288
C IV 1548 3.0288
C IV 1551 3.0288
O I
Fe II 1608 2.9535
Fe II 1608 3.0288
Si II 1527 0.0
Si II 1527 3.2787
C IV 1548 0.0
C IV 1548 3.2787
C IV 1551 0.0
Al II 1671 2.9535
C IV 1551 3.2787
C I 1560 0.0
C Im* 1561 0.04
-2
-1
0
1


SDSS J1220+4549
Rest Wavelength (Å)
z=3.2708
z= 3.293
Observed Wavelength (Å)
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
C IV 1548 0.0
C IV 1548 3.2787
C IV 1551 0.0
C IV 1551 3.2787
C I 1560 0.0
C Im* 1561 0.04
Al II 1671 2.9535
Al II 1671 3.0288
Al III 1855 2.6591
Al III 1863 2.6591
Fe II 1608 0.0
Fe II 1608 3.2787
C I 1657 0.0
C Im* 1657 0.04
Al II 1671 0.0
Al II 1671 3.2787
Al III 1855 2.9535
Al III 1863 2.9535
Al III 1855 3.0288
Al III 1863 3.0288
Al I 1766 0.0
Al Im* 1766 0.1


SDSS J1220+4549
Rest Wavelength (Å)
z= 3.293
z=3.2708
1750
1800
1850
1900
1950
-2
-1
0
1
Al III 1863 3.0288
Al I 1766 0.0
Al Im* 1766 0.1
Si II 1808 0.0
Al III 1855 0.0
Al III 1855 3.2787
Al III 1863 0.0
Al III 1863 3.2787
Al I 1932 0.0
Al Im* 1936 0.1
Flux (10^{-17} ergs s^{-1} cm^{-2} Å^{-1})
0
5
10
15
20
25
7600
7800
8000
8200
8400
Observed Wavelength (Å)


SDSS J1220+4549
Rest Wavelength (Å)
z= 3.293
z=3.2708
Fe II 2344 2.6591
Fe II 2374 2.6591
Fe II 2383 2.6591
Flux (10^-17 ergs s^-1 cm^-2 Å^-1)
Observed Wavelength (Å)
2000
2050
2100
2150
2200
8600
8800
9000
9200
9400
0
5
10
15
20
25
-2
-1
0
1