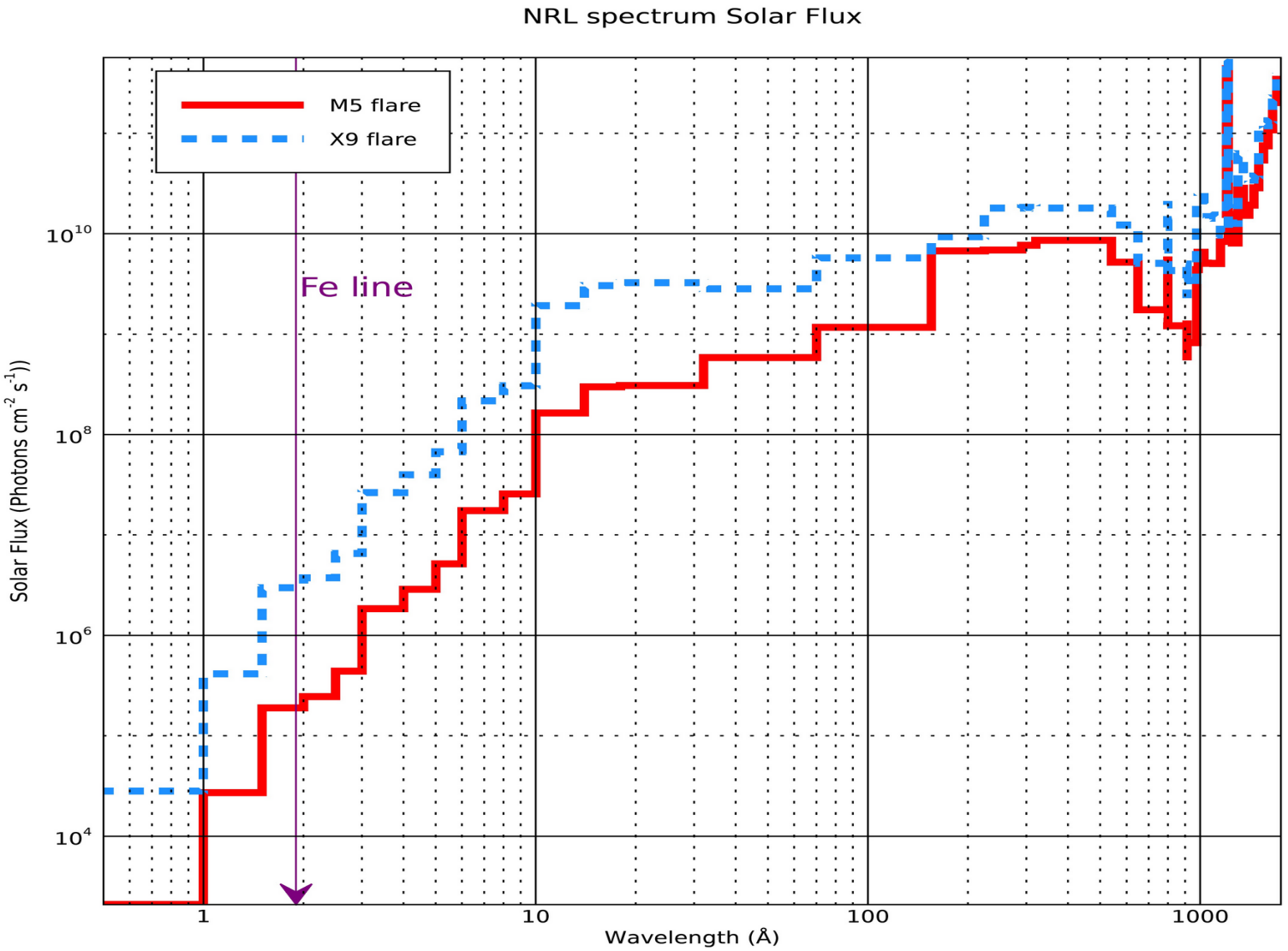
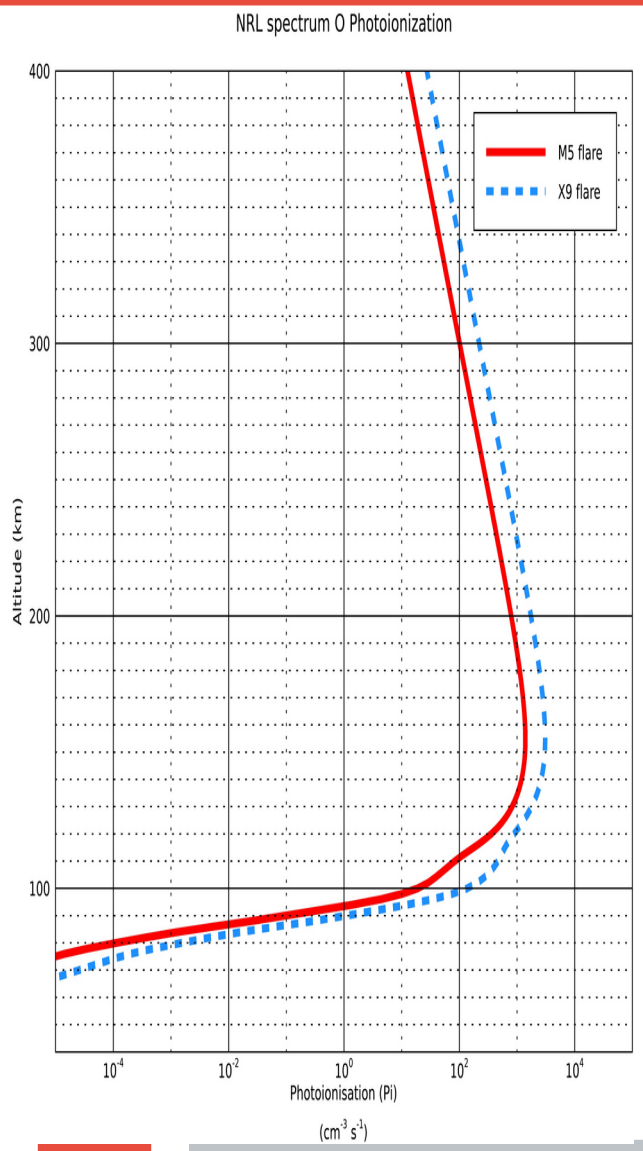
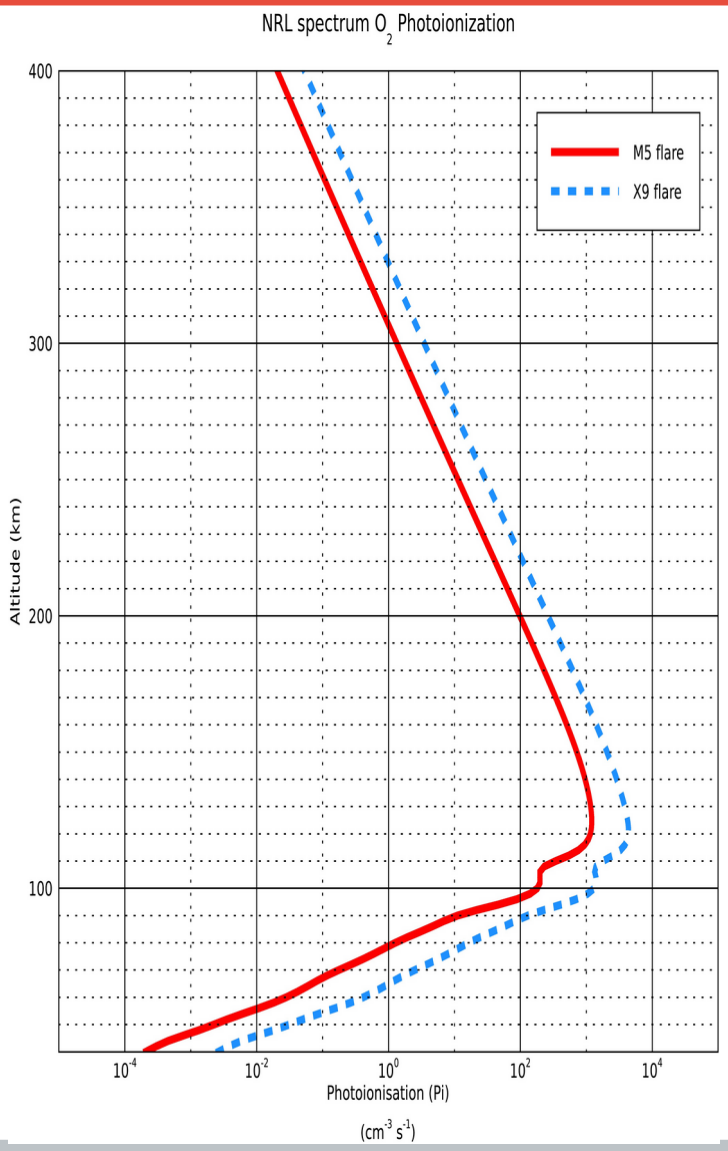
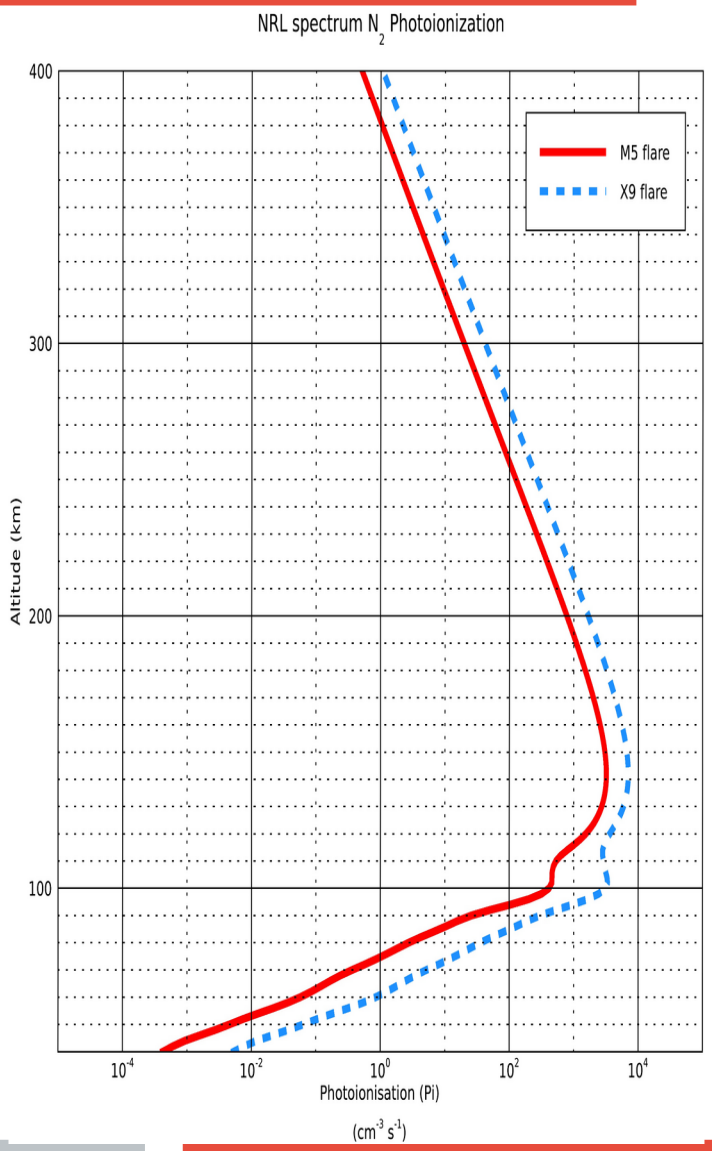
NRL Spectra


NRL spectrum Solar Flux
M5 flare
X9 flare
Fe line
Solar Flux (Photons cm-2 s-1))
Wavelength (Å)
10^10
10^8
10^6
10^4
1
10
100
1000

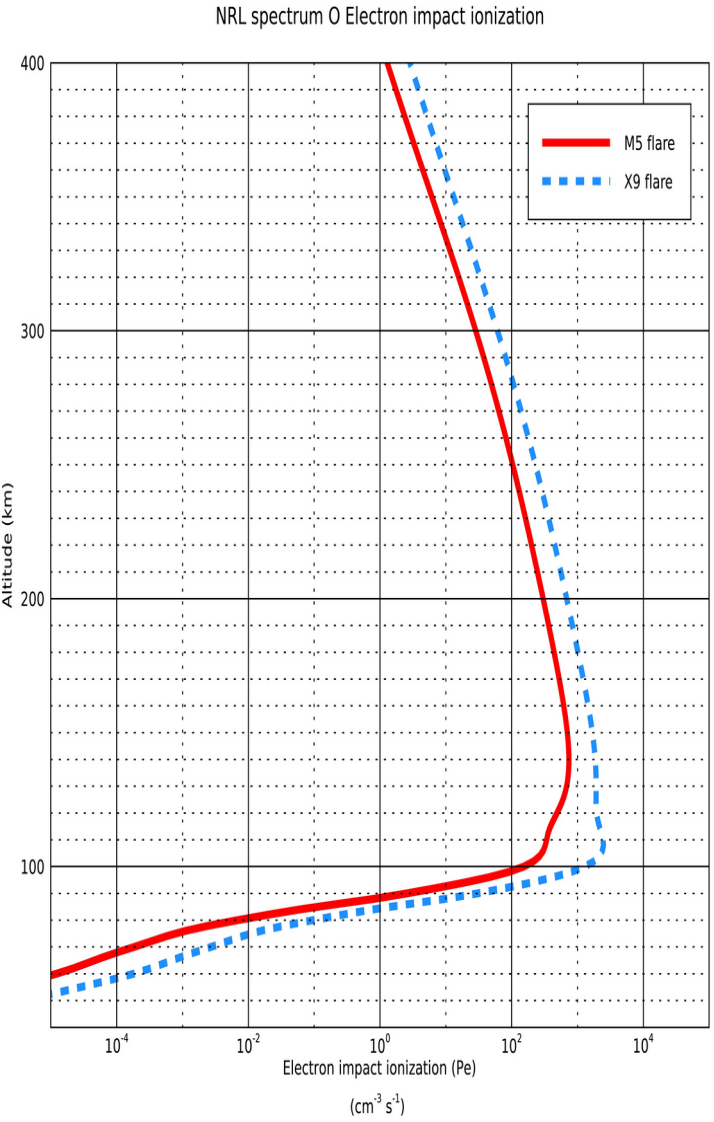
Photoionsation rates for the two spectra

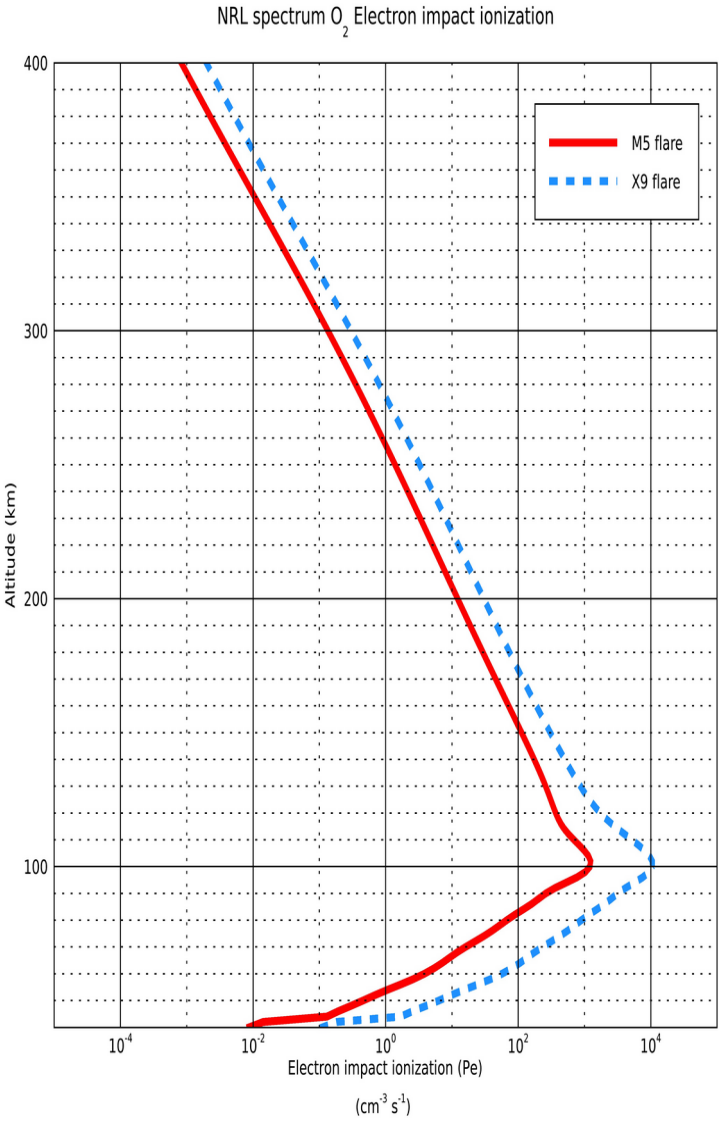


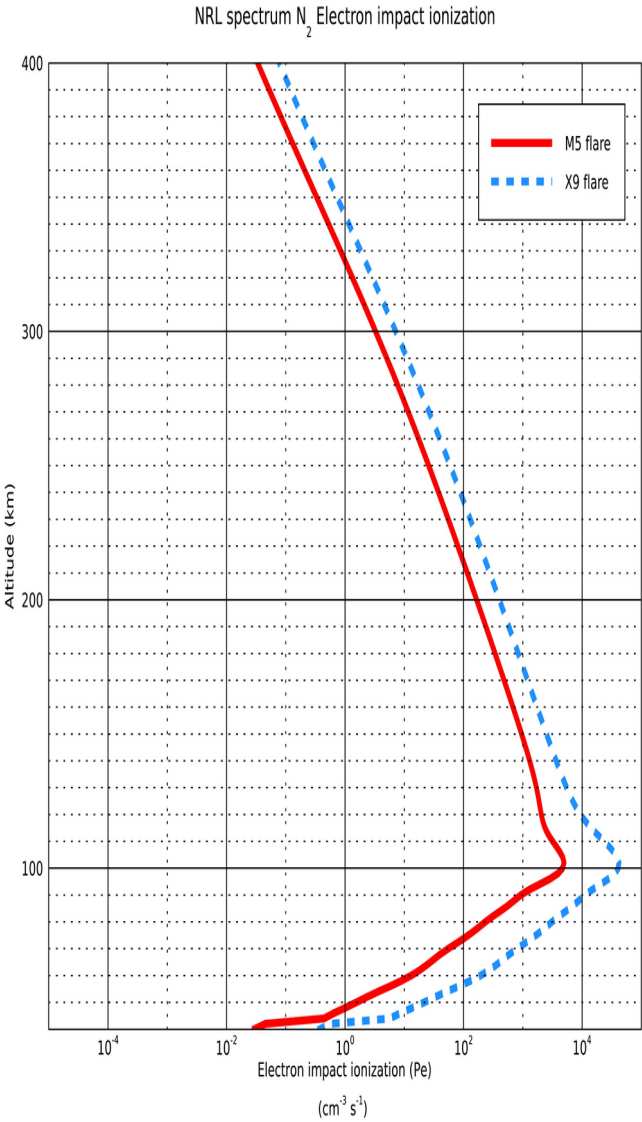




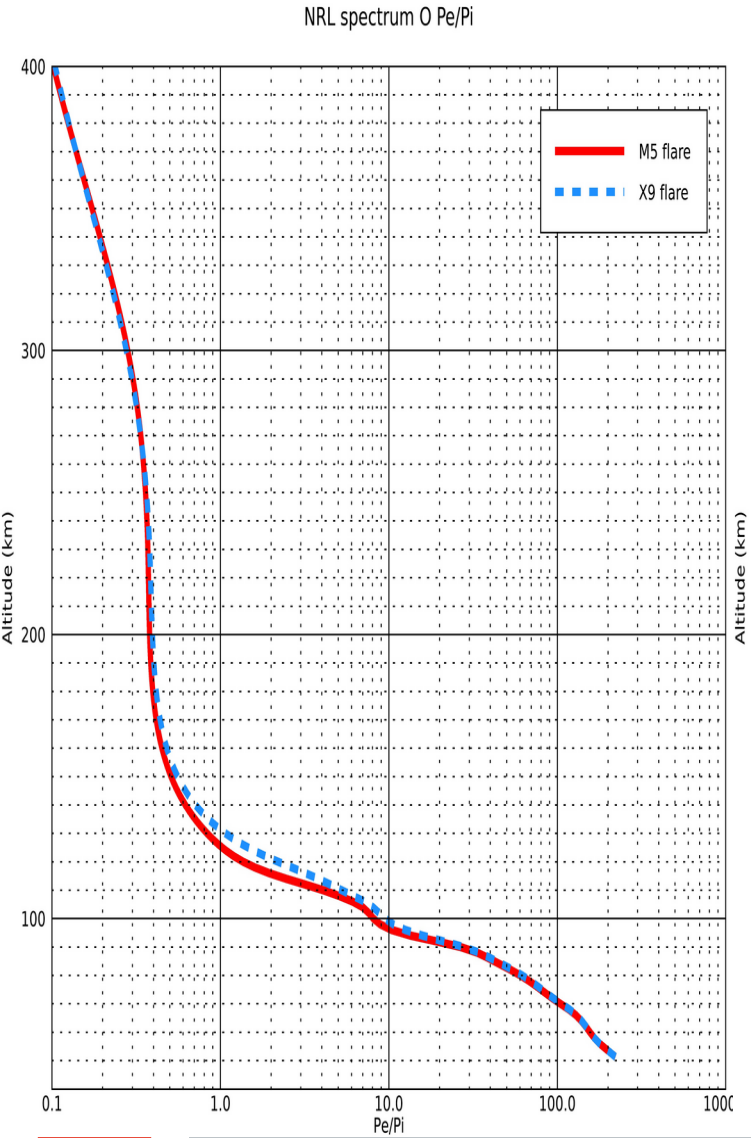
Photoelectron ionisation rates for the two spectra

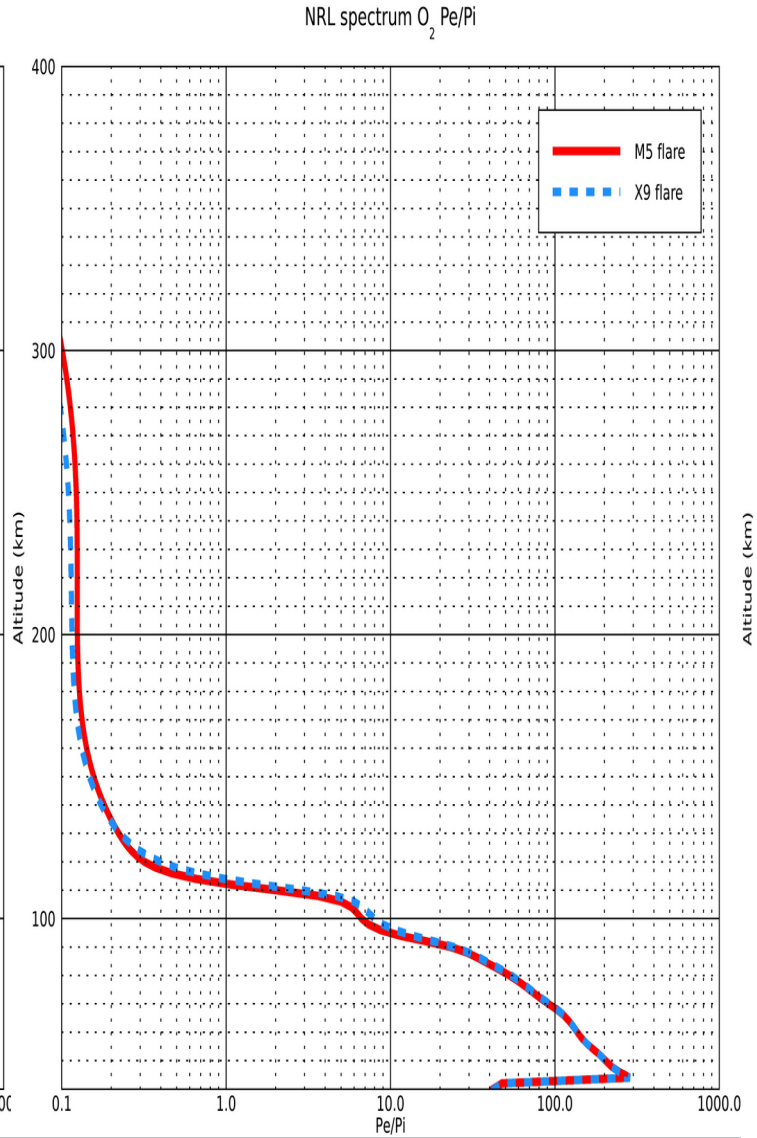


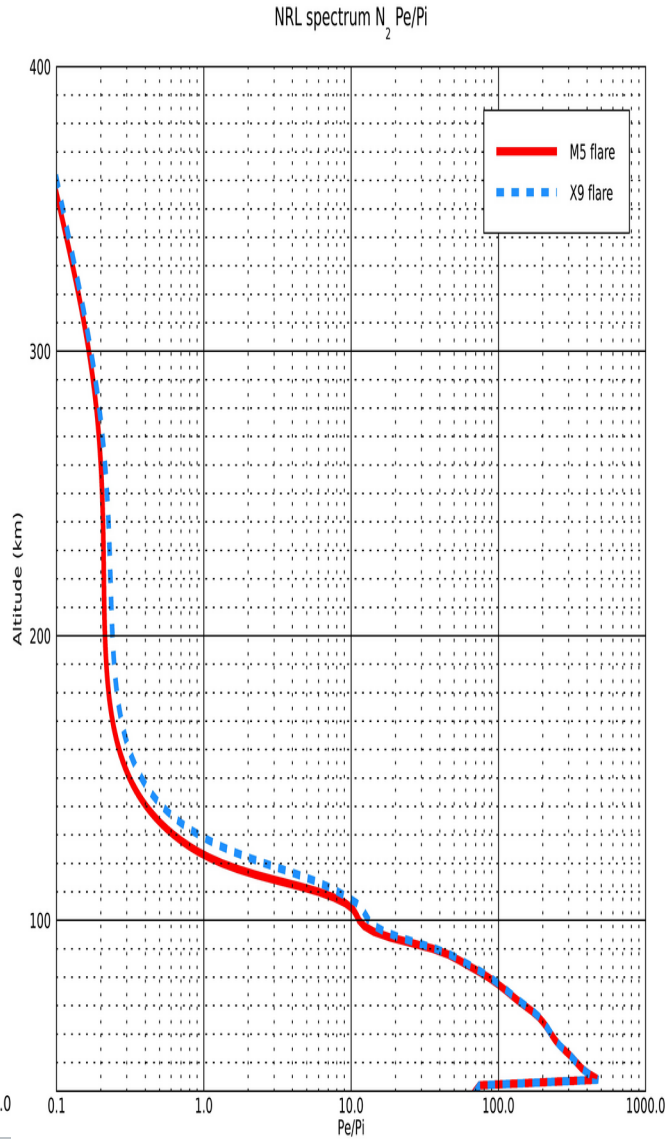




Pe/Pi ratios for the two spectra







Results of the Model- M5 flare

O2 data						
Bin #	λ min (A)	λ max (A)	Mean λ (A)	Mean σ_{O2abs} (mega-barns)	Alt of tau~ 1 (km)	pe/pi
1	0.5	1	0.75	6.21E-05	46	334.877
2	1	1.5	1.25	2.73E-04	58	186.124
3	1.5	2	1.75	8.33E-04	65	130.288
4	2	2.5	2.25	1.88E-03	71	100.69
5	2.5	3	2.75	3.66E-03	75	81.527
6	3	4	3.5	6.95E-03	79	64.223
7	4	5	4.5	1.50E-02	83	48.239
8	5	6	5.5	2.66E-02	87	37.862
9	6	8	7	5.25E-02	90	28.251
10	8	10	9	1.05E-01	94	19.552
11	10	14	12	2.25E-01	99	12.552
12	14	18	16	4.71E-01	103	6.794

N2 data						
Bin #	λ min (A)	λ max (A)	Mean λ (A)	Mean σ_{N2abs} (mega-barns)	Alt of tau~ 1 (km)	pe/pi
1	0.5	1	0.75	3.38E-05	46	556.789
2	1	1.5	1.25	1.49E-04	58	311.116
3	1.5	2	1.75	4.55E-04	65	217.68
4	2	2.5	2.25	1.03E-03	71	166.914
5	2.5	3	2.75	2.04E-03	75	134.397
6	3	4	3.5	3.91E-03	79	105.002
7	4	5	4.5	8.59E-03	83	77.558
8	5	6	5.5	1.56E-02	87	59.911
9	6	8	7	3.15E-02	90	43.828
10	8	10	9	6.43E-02	94	29.971
11	10	14	12	1.41E-01	99	19.047
12	14	18	16	3.02E-01	103	10.275

Results of the Model- X9 flare

O2 data						
Bin #	λ min (A)	λ max (A)	Mean λ (A)	Mean σ_{O2abs} (mega-barns)	Alt of tau~ 1 (km)	pe/pi
1	0.5	1	0.75	6.21E-05	46	334.877
2	1	1.5	1.25	2.73E-04	58	186.124
3	1.5	2	1.75	8.33E-04	65	130.287
4	2	2.5	2.25	1.88E-03	71	100.69
5	2.5	3	2.75	3.66E-03	75	81.527
6	3	4	3.5	6.95E-03	79	64.223
7	4	5	4.5	1.50E-02	83	48.239
8	5	6	5.5	2.66E-02	87	37.862
9	6	8	7	5.25E-02	90	28.251
10	8	10	9	1.05E-01	94	19.552
11	10	14	12	2.25E-01	99	12.552
12	14	18	16	4.71E-01	103	6.794

N2 data						
Bin #	λ min (A)	λ max (A)	Mean λ (A)	Mean σ_{N2abs} (mega-barns)	Alt of tau~ 1 (km)	pe/pi
1	0.5	1	0.75	3.38E-05	46	556.789
2	1	1.5	1.25	1.49E-04	58	311.116
3	1.5	2	1.75	4.55E-04	65	217.68
4	2	2.5	2.25	1.03E-03	71	166.914
5	2.5	3	2.75	2.04E-03	75	134.397
6	3	4	3.5	3.91E-03	79	105.002
7	4	5	4.5	8.59E-03	83	77.558
8	5	6	5.5	1.56E-02	87	59.911
9	6	8	7	3.15E-02	90	43.828
10	8	10	9	6.43E-02	94	29.971
11	10	14	12	1.41E-01	99	19.047
12	14	18	16	3.02E-01	103	10.275