

A Guide to Life, Liberty and the Pursuit of Happiness

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Abstract

This is a simple document which will...

1 The Lines

? N.B. $13.6 \text{ eV} \equiv$

2 References

Table 1: The Lines

Name	Wavelength / Å	Transition	Rest Passband	Interpreation
Lyman- α	1215.67	2 to 1	\sim FUV	Major QSO line
Lyman- β	1025.18	3 to 1	\sim FUV	
Lyman- γ	972.02	4 to 1	\sim FUV	
Lyman Limit	911.27	∞ to 1	\sim FUV	
H- α	6563.	3 to 2	R,r	Recent major SF or AGN activity
H- β	4861.	4 to 2	B,V,g	
H- γ	4341.	5 to 2	U,B,u	
H- δ	4102.	6 to 2	\sim FUV	
Balmer Limit	3646.	∞ to 2	\sim FUV	
HI	3646.	∞ to 2	\sim FUV	Previous SF history
HII	3646.	∞ to 2	\sim FUV	
HeI	3646.	∞ to 2	\sim FUV	
HeII	3646.	∞ to 2	\sim FUV	
HeIII	3646.	∞ to 2	\sim FUV	
CIV	3646.	∞ to 2	\sim FUV	Major QSO line
OII	3646.	∞ to 2	\sim FUV	Major QSO line
OIII	3646.	∞ to 2	\sim FUV	Recent major SF line
OIII	5007.	∞ to 2	\sim FUV	Recent major SF line
Ca II H	3999.	∞ to 2	\sim FUV	Old stellar pop
Ca II K	4001.	∞ to 2	\sim FUV	Old stellar pop
NII	5007.	∞ to 2	\sim FUV	
NeV	3646.	∞ to 2	\sim FUV	Major QSO line
[OIII λ 5007/ H β]				“BPT” diagram reliable tool for determining source of line emission from a galaxy visually differentiating between Seyferts, LINERs and SF gals. However “low” redshifts since need H α , (not at $z \sim 1$). Modified BPT with $(U - B)$ colour replacing [NII λ 6583/ H α] e.g. Montero-Dorta, 0801.2769.
[NII λ 6583/ H α]				
[SII λ 6583/ H α]		∞ to 2	\sim FUV	
[α /Fe]	3646.	∞ to 2	\sim FUV	
NV	1???..67	2 to 1	\sim FUV	Major QSO line
SiIV	1???..67	2 to 1	\sim FUV	Major QSO line
CIV	1???..67	2 to 1	\sim FUV	Major QSO line
CIII]	1???..67	2 to 1	\sim FUV	Major QSO line
MgII	1???..67	2 to 1	\sim FUV	Major QSO line