

# X-ray Terminology

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## Abstract

This is a simple document which will... See also “General\_Physical\_terms”

## 1 Glossary

- **Hard State:** A
- **Hardness Ratio:**
- **Parandell Instability:**
- **QPOs:**
- **S-curve Instability:**
- **S-curve Instability filp:**
- **Soft State:**

Croom et al. (2004)

## 2 References

### References

Croom S. M., Smith R. J., Boyle B. J., Shanks T., Miller L., Outram P. J., Loaring N. S., 2004, MNRAS, 349, 1397

Table 1: The Lines

Name	Wavelength / Å	Transition	Rest Passband	Interpreation
Lyman- $\alpha$	1215.67	2 to 1	$\sim$ FUV	Major QSO line
Lyman- $\beta$	1025.18	3 to 1	$\sim$ FUV	
Lyman- $\gamma$	972.02	4 to 1	$\sim$ FUV	
Lyman Limit	911.27	$\infty$ to 1	$\sim$ FUV	
H- $\alpha$	6563.	3 to 2	R,r	Recent major SF or AGN activity
H- $\beta$	4861.	4 to 2	B,V,g	
H- $\gamma$	4341.	5 to 2	U,B,u	
H- $\delta$	4102.	6 to 2	$\sim$ FUV	
Balmer Limit	3646.	$\infty$ to 2	$\sim$ FUV	
HI	3646.	$\infty$ to 2	$\sim$ FUV	Previous SF history
HII	3646.	$\infty$ to 2	$\sim$ FUV	
HeI	3646.	$\infty$ to 2	$\sim$ FUV	
HeII	3646.	$\infty$ to 2	$\sim$ FUV	
HeIII	3646.	$\infty$ to 2	$\sim$ FUV	
CIV	3646.	$\infty$ to 2	$\sim$ FUV	Major QSO line
OII	3646.	$\infty$ to 2	$\sim$ FUV	Major QSO line
OIII	3646.	$\infty$ to 2	$\sim$ FUV	Recent major SF line
OIII	5007.	$\infty$ to 2	$\sim$ FUV	Recent major SF line
Ca II H	3999.	$\infty$ to 2	$\sim$ FUV	Old stellar pop
Ca II K	4001.	$\infty$ to 2	$\sim$ FUV	Old stellar pop
NII	5007.	$\infty$ to 2	$\sim$ FUV	
NeV	3646.	$\infty$ to 2	$\sim$ FUV	Major QSO line
[OIII $\lambda$ 5007/ H $\beta$ ] [NII $\lambda$ 6583/ H $\alpha$ ]				“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 $\alpha$ , (not at $z \sim 1$ ). Modified BPT with $(U - B)$ colour replacing [NII $\lambda$ 6583/ H $\alpha$ ] e.g. Montero-Dorta, 0801.2769.
[SII $\lambda$ 6583/ H $\alpha$ ]		$\infty$ to 2	$\sim$ FUV	Major QSO line
[ $\alpha$ /Fe]	3646.	$\infty$ to 2	$\sim$ FUV	Major QSO line
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