Wide Field Grism Spectrograph 2 (WFGS2)

Mariko Uehara 2006/10/3 Ver.3

1. WFGS2 Characteristics

Wavelength 380-970 nm

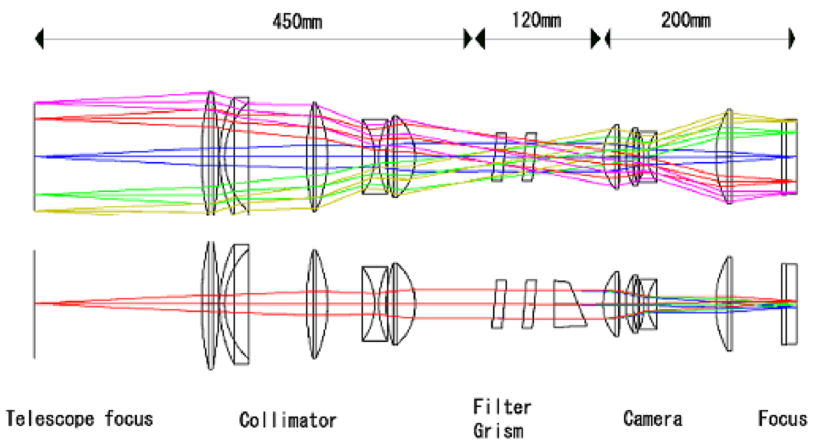
Field of view 11'.5 × 11'.5 (0.”34 × 0.”34 / pixel^2)

F number F/6.57

Detector CCD 2048 × 2048 pixel, 24 μm/pixel (Tek)

Disperser grism

Telescope UH2.2m Reflector (f/10)



WFGS2 optical layout

2. Dispersers

	Groove/mm	Central wavelength	Resolution (with 0.”7 slit)	Dispersion
Low-dispersion grism 1	300	650 nm (Hα)	820 (*1) (at 650 nm)	0.38 nm/pixel (*1)
Low-dispersion grism 2	600	346 nm	1400 (*2) (at 550 nm)	0.19 nm/pixel (*1)
VPH grism	1315	664 nm (Hα + Li)	4200 (*1) (at 664 nm)	0.08 nm/pixel (*1)

(*1): measured value

(*2): estimated value

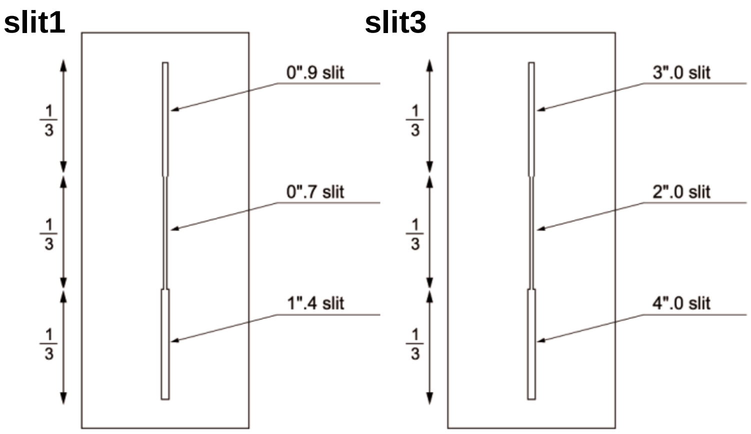
3. Slits and focal plane masks

slit1 0".7, 0”.9, 1”.4 (effective width)

slit2 0”.9 long-slit

slit3 2”.0, 3”.0, 4”.0 (effective width)

Pinholes



4. Filters

Broadband (estimation including the Tek CCD sensitivity curve)

g' 482.5 nm ± 50 nm

r' 626.1 nm ± 50 nm

i' 767.2 nm ± 50 nm

z' 909.7 nm ± 60 nm

Narrowband

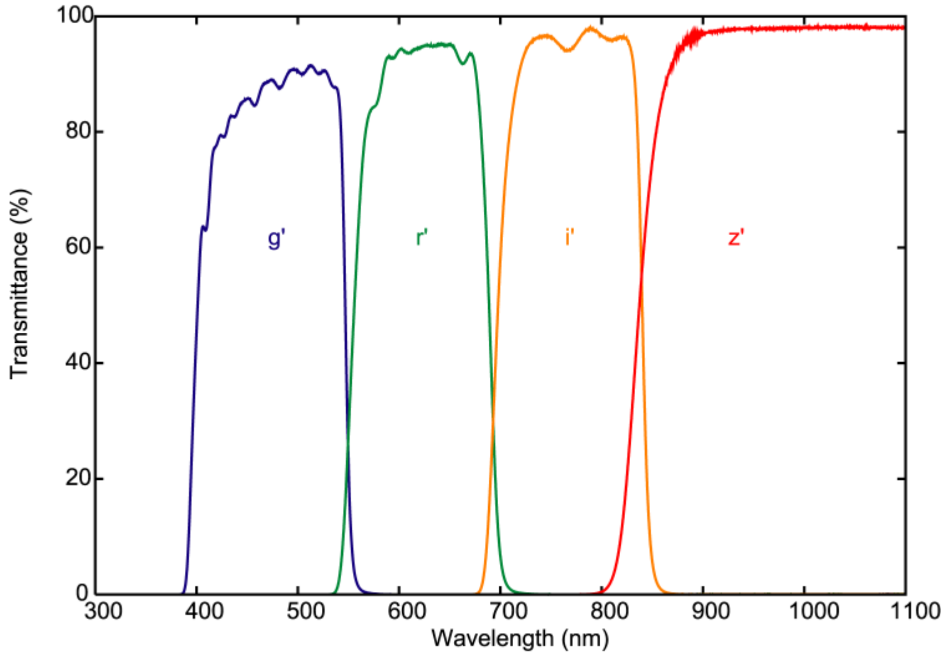
wide Hα 651.5 nm ± 25 nm

Hα 656.3 nm ± 5 nm

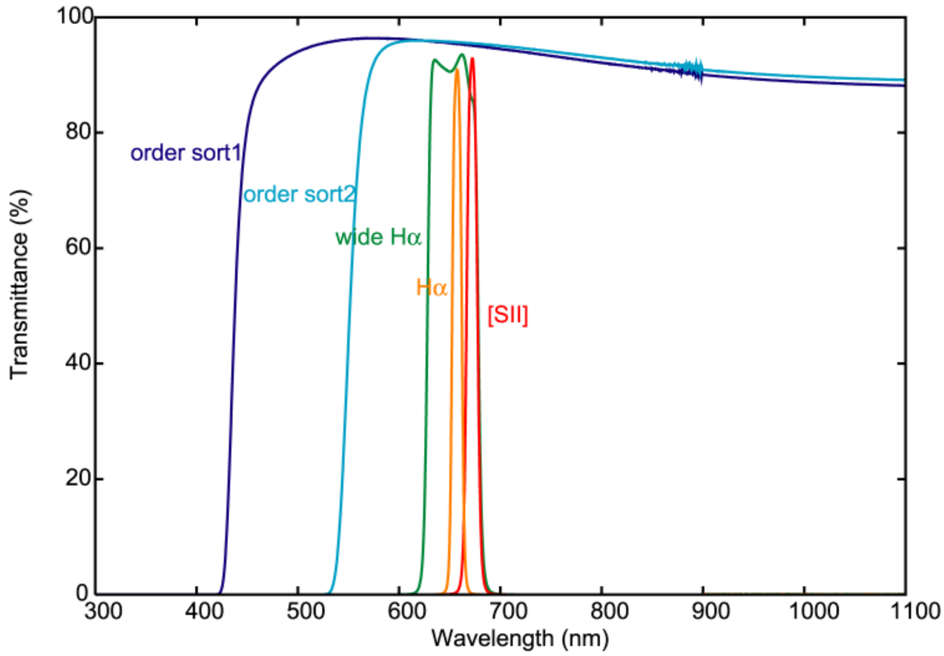
[SII] + Li 672.0 nm ± 5 nm

Order-sort1 > 435 nm

Order-sort2 > 550 nm



100
80
60
40
20
0
Transmittance (%)
g'
r'
i'
z'
300
400
500
600
700
800
900
1000
1100
Wavelength (nm)



100
80
60
40
20
0
Transmittance (%)
order sort1
order sort2
wide Hα
Hα
[SII]
300
400
500
600
700
800
900
1000
1100
Wavelength (nm)