



Telescopio Nazionale Galileo Instrumentation

# Spettrografo ad Alta Risoluzione Galileo (SARG)

*Thorium - Argon Atlas*

*Blue Cross Disperser (blue CCD)*

*Spectral Range:  $\lambda$  (3600 – 4348)Å*



DOCUMENT SARG – D036 I

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## FORWARD

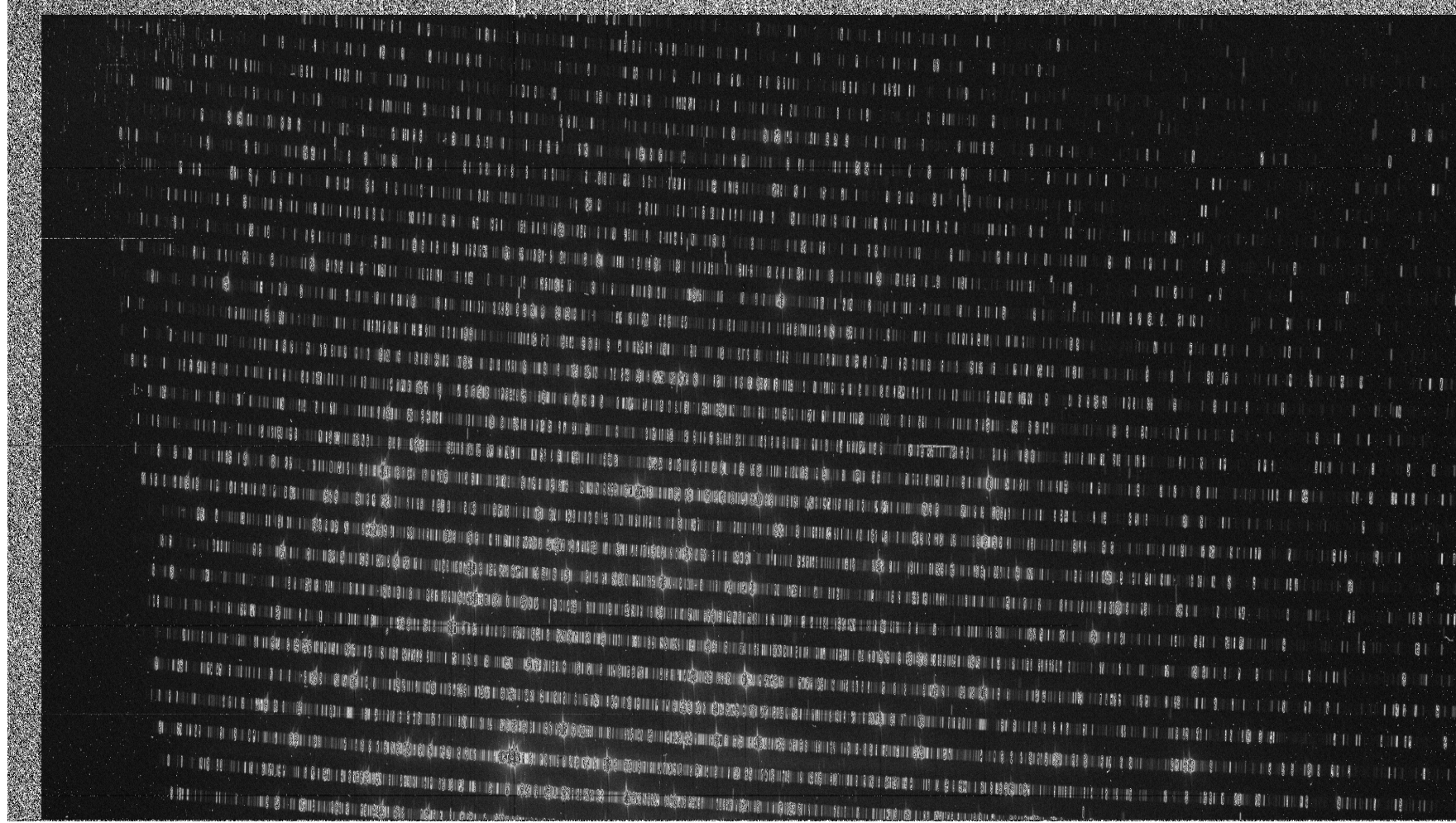
The Th-A atlas in the region ranging between the wavelengths 3600 Å and 4348 Å as imaged on the SARG blue CCD with the blue grism (cross disperser 1) is presented.

The spectra were made exploiting the R= 164,000 slit and a 2×1 CCD binning. The trimming section of the blue CCD was:

[1097:2145;1:4197]

A set of information about the spectral formats is also given:

- a 2-D image of the blue CCD in 2×1 binning format (1100×4200 pixels) with the order position on to the CCD clearly indicated (the picture is enlarged in the X direction for clarity)
- a plot showing the change with the spectral order number of the separation between the order (together with the central wavelengths)
- a table listing: the aperture number (first column), the spectral order (second column), the central wavelength, corresponding to pixel 2048, the initial and ending wavelength, all in Å (third, fourth and fifth columns), the free spectral range (in Å), the average  $\Delta\lambda/\text{pix}$ , the spectral order separation at the centre of the order in pixels (the scale on detector is 0.16 arcsec/pixel). In the last column the number of the page where one can find the corresponding 1-D spectrum plot with the identification of some line.
- A plot showing the residuals of the wavelength solution



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Ap.	Order	$\lambda_c$	$\lambda_1$	$\lambda_2$	FSR	$\Delta\lambda$	Sep	Page
	#		(Å)	(Å)	(Å)	(Å/px)	(pix)	
1	142	4324.0	4280.817	4347.627	30.4	0.015922	/	8
2	143	4293.7	4250.980	4317.320	30.0	0.015810	81.68	9
3	144	4263.9	4221.582	4287.429	29.6	0.015693	79.98	10
4	145	4234.5	4192.607	4257.946	29.2	0.015572	79.54	11
5	146	4205.5	4164.038	4228.865	28.8	0.015450	78.66	12
6	147	4176.9	4135.861	4200.180	28.4	0.015328	77.92	13
7	148	4148.7	4108.064	4171.882	28.0	0.015209	77.22	14
8	149	4120.8	4080.637	4143.965	27.7	0.015092	76.60	15
9	150	4093.4	4053.571	4116.420	27.3	0.014978	76.02	16
10	151	4066.3	4026.857	4089.241	26.9	0.014868	75.20	17
11	152	4039.5	4000.489	4062.420	26.6	0.014759	74.62	18
12	153	4013.1	3974.462	4035.949	26.2	0.014654	73.94	19
13	154	3987.0	3948.769	4009.821	25.9	0.014550	73.66	20
14	155	3961.3	3923.406	3984.029	25.6	0.014448	73.02	21
15	156	3935.9	3898.369	3958.566	25.2	0.014346	72.30	22
16	157	3910.9	3873.652	3933.425	24.9	0.014245	71.66	23
17	158	3886.1	3849.252	3908.600	24.6	0.014144	71.60	24
18	159	3861.7	3825.164	3884.085	24.3	0.014042	70.88	25
19	160	3837.5	3801.382	3859.874	24.0	0.013940	70.78	26
20	161	3813.7	3777.903	3835.964	23.7	0.013837	69.68	27
21	162	3790.2	3754.719	3812.348	23.4	0.013734	69.52	28
22	163	3766.9	3731.824	3789.023	23.1	0.013632	69.12	29
23	164	3743.9	3709.211	3765.986	22.8	0.013531	68.50	30
24	165	3721.2	3686.871	3743.234	22.6	0.013433	67.38	31
25	166	3698.8	3664.795	3720.765	22.3	0.013339	68.28	32
26	167	3676.7	3642.971	3698.577	22.0	0.013252	66.12	33
27	168	3654.8	3621.389	3676.670	21.8	0.013175	66.0	34
28	169	3633.2	3600.034	3655.044	21.5	0.013110	/	35

