



Telescopio Nazionale Galileo Instrumentation

Spettrografo ad Alta Risoluzione Galileo (SARG)

Thorium - Argon Atlas

Red Cross Disperser (blue CCD)

Spectral Range: λ (5528 – 7438)Å



DOCUMENT SARG – D036 VII

Claudi R.U.

Astronomical Observatory of Padova, vicolo Osservatorio, 5 35122 Padova

Marino G.

*Centro Galileo Galilei, Calle Alvarez de abreu, 70
38700 Santa Cruz de la Palma*

FORWARD

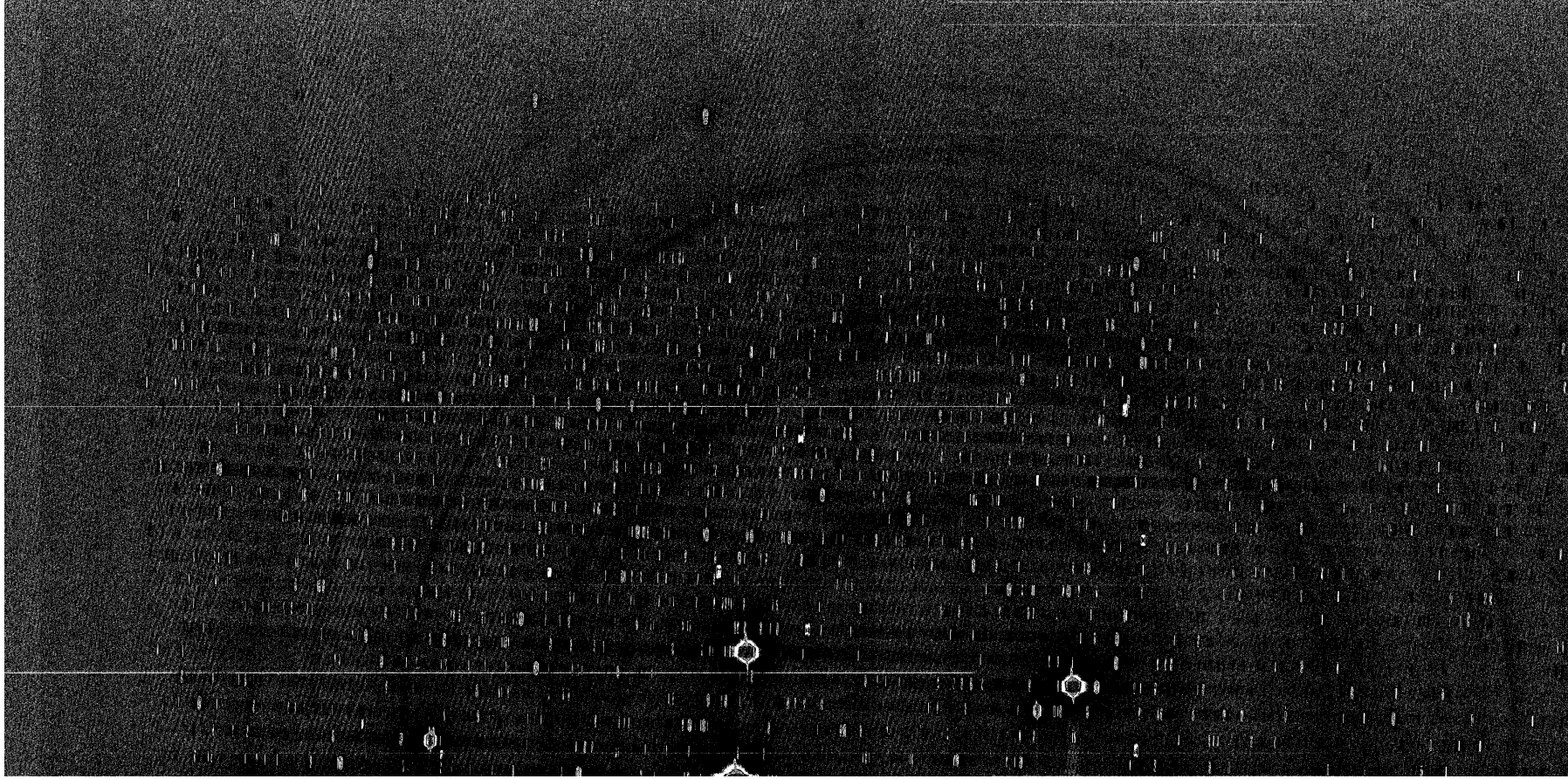
The Th-Ar atlas in the region ranging between the wavelengths 5528 Å and 7438 Å as imaged on the SARG blue CCD with the red grism (cross disperser 4) is presented.

The spectra were made exploiting the R= 164,000 slit , a 1×1 CCD binning and the FW5 order sorting filter. The filter cuts wavelength for $\lambda < 5500$ Å (all orders from 111 to 123). The trimming section of the blue CCD was:

[2200 : 4199 ; 1 : 4199]

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

- a 2-D image of the blue CCD in 1×1 binning format (2100×4200 pixels) with the order position on to the CCD clearly indicated.
- 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	λ_C	λ_1	λ_2	FSR	$\Delta\lambda$	Sep	Page
	#		(\AA)	(\AA)	(\AA)	($\text{\AA}/\text{px}$)	(pix)	
1	83	7397.6	7324.676	7438.112	89.1	0.027021	/	8
2	84	7309.6	7237.540	7349.608	87.0	0.026696	66.98	9
3	85	7223.6	7152.453	7263.187	85.0	0.026378	65.80	10
4	86	7139.6	7069.344	7178.774	83.0	0.026067	64.28	11
5	87	7057.5	6988.145	7096.301	81.1	0.025764	63.28	12
6	88	6977.3	6908.791	7015.702	79.3	0.025467	61.91	13
7	89	6898.9	6831.219	6936.913	77.5	0.025177	60.67	14
8	90	6822.3	6755.370	6859.874	75.8	0.024894	59.58	15
9	91	6747.3	6681.188	6784.528	74.1	0.024616	58.43	16
10	92	6674.0	6608.617	6710.818	72.5	0.024345	57.36	17
11	93	6602.2	6537.607	6638.694	71.0	0.024080	56.42	18
12	94	6532.0	6468.107	6568.103	69.5	0.023820	55.10	19
13	95	6463.2	6400.070	6498.997	68.0	0.023565	54.00	20
14	96	6395.9	6333.449	6431.331	66.6	0.023316	53.32	21
15	97	6329.9	6268.202	6365.059	65.3	0.023072	52.45	22
16	98	6265.4	6204.286	6300.139	63.9	0.022833	51.78	23
17	99	6202.1	6141.660	6236.530	62.6	0.022599	50.63	24
18	100	6140.0	6080.287	6174.192	61.4	0.022369	49.89	25
19	101	6079.3	6020.129	6113.088	60.2	0.022144	49.21	26
20	102	6019.7	5961.150	6053.182	59.0	0.021923	48.63	27
21	103	5961.2	5903.316	5994.438	57.9	0.021706	47.62	28
22	104	5903.9	5846.594	5936.823	56.8	0.021493	46.95	29
23	105	5847.7	5790.952	5880.305	55.7	0.021285	46.23	30
24	106	5792.5	5736.359	5824.853	54.6	0.021080	45.58	31
25	107	5738.4	5682.787	5770.437	53.6	0.020879	45.00	32
26	108	5685.2	5630.207	5717.028	52.6	0.020682	44.25	33
27	109	5633.1	5578.591	5664.598	51.7	0.020488	43.63	34
28	110	5581.9	5527.914	5613.122	50.7	0.020297	43.18	35

