



Telescopio Nazionale Galileo Instrumentation

Spettrografo ad Alta Risoluzione Galileo (SARG)

Thorium - Argon Atlas

Yellow Cross Disperser (red CCD)

Spectral Range: λ (6141 – 7918)Å



DOCUMENT SARG – D036 VI

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FORWARD

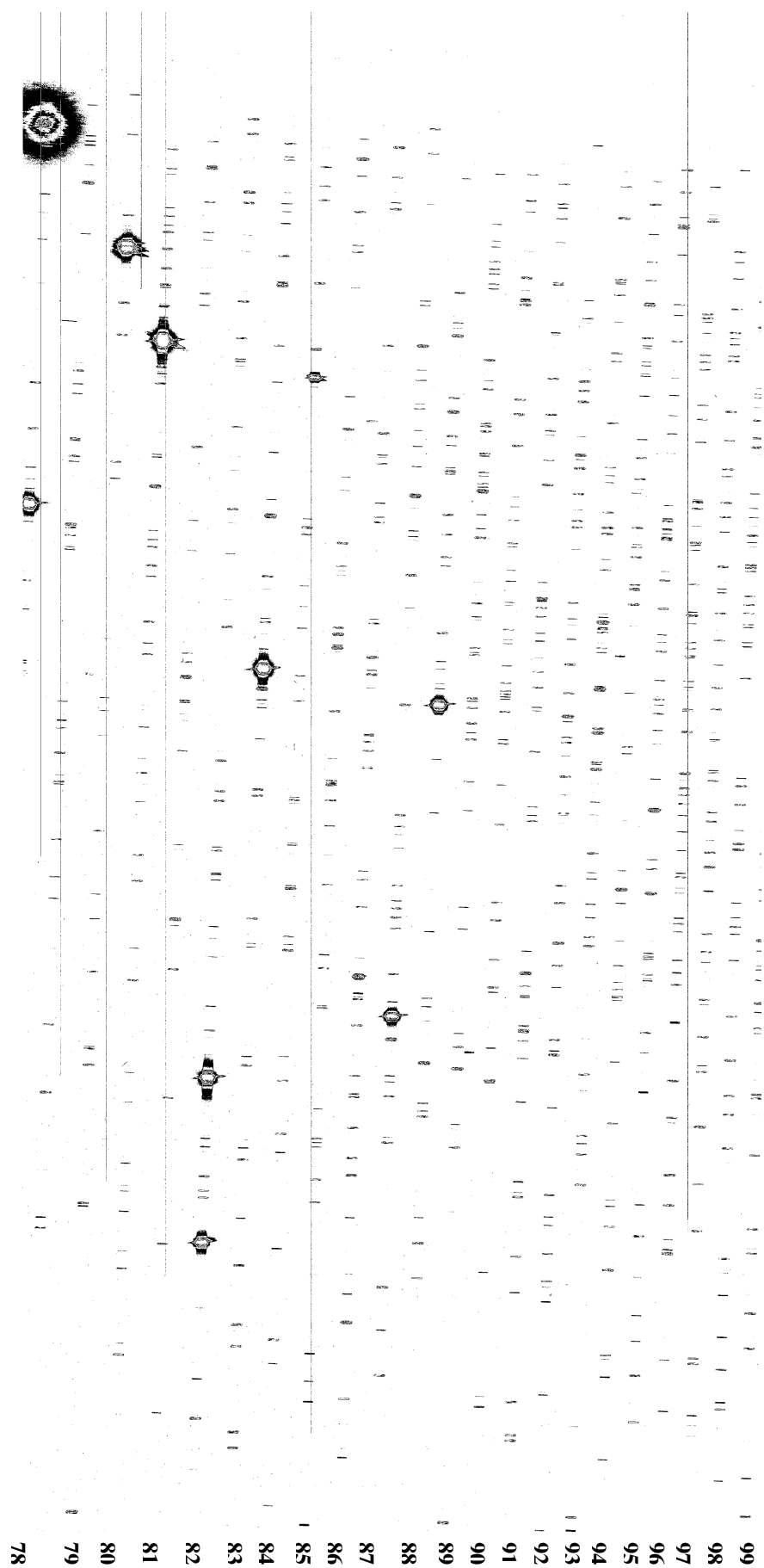
The Th-A atlas in the region ranging between the wavelengths 6141 \AA and 7918 \AA as imaged on the SARG red CCD with the yellow grism (cross disperser 3) is presented.

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

[1 : 2096 ; 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 \times 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 \AA (third, fourth and fifth columns), the free spectral range (in \AA), 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



Ap.	Order	λ_c	λ_1	λ_2	FSR	$\Delta\lambda$	Sep	Page
	#		(\AA)	(\AA)	(\AA)	($\text{\AA}/px$)	(pix)	
1	78	7871.9	7798.884	7917.602	100.9	0.028280	115.81	8
2	79	7772.2	7699.858	7817.246	98.4	0.027963	112.75	9
3	80	7675.1	7603.317	7719.401	95.9	0.027652	109.93	10
4	81	7580.3	7509.168	7623.973	93.6	0.027348	107.74	11
5	82	7487.9	7417.323	7530.875	91.3	0.027049	105.25	12
6	83	7397.6	7327.699	7440.022	89.1	0.026756	102.79	13
7	84	7309.6	7240.216	7351.333	87.0	0.026469	100.41	14
8	85	7223.6	7154.799	7264.733	85.0	0.026187	98.35	15
9	86	7139.6	7071.374	7180.148	83.0	0.025911	96.20	16
10	87	7057.5	6989.873	7097.510	81.1	0.025640	94.10	17
11	88	6977.3	6910.230	7016.750	79.3	0.025374	92.25	18
12	89	6898.9	6832.382	6937.807	77.5	0.0251130	90.26	19
13	90	6822.3	6756.269	6860.620	75.8	0.024857	88.56	20
14	91	6747.3	6681.834	6785.130	74.1	0.024606	86.73	21
15	92	6674.0	6609.02	6711.283	72.5	0.024360	85.22	22
16	93	6602.2	6537.777	6639.025	71.0	0.024118	83.54	23
17	94	6532.0	6468.052	6568.305	69.5	0.023881	81.95	24
18	95	6463.2	6399.799	6499.075	68.0	0.023648	80.62	25
19	96	6395.9	6332.971	6431.289	66.6	0.023420	78.81	26
20	97	6329.9	6267.522	6364.901	65.3	0.023196	77.73	27
21	98	6265.4	6203.412	6299.869	63.9	0.022977	/	28
22	99	6202.1	6140.599	6236.152	62.6	0.022762	/	29

