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ERRATUM:

“A HIGH-RESOLUTION SPECTRUM OF THE TrES-1 PARENT STAR”

STRASSMEIER, KLAUS G.¹; RICE, JOHN B.²

¹ Astrophysical Institute Potsdam, Germany. e-mail: kstrassmeier@aip.de

² Brandon University, Dept. of Physics & Astronomy, Canada. e-mail: rice@brandonU.ca

In a previous IBVS note (Strassmeier & Rice 2004; IBVS 5566; Oct. 2004) we presented a single high-resolution ($R=120,000$) spectrum of the parent star of the TrES-1 planet in a 10nm wide wavelength region centered at the lithium region at 671nm. Our intentions were to determine the lithium abundance of the host star and to obtain an accurate value of its rotational line broadening. As a by product, we found an iron abundance of -0.6 dex compared to the most recent solar value. In the meantime, Sozzetti et al. (2004) also published a high-resolution spectrum of TrES-1 ($R \approx 60,000$) but obtained a solar abundance of $[\text{Fe}/\text{H}] \approx 0.00$, in agreement with an earlier note in Alonso et al. (2005) but in strong disagreement with our value.

Due to a data-reduction error during the combination of our five individual TrES-1 spectra, our combined spectrum appeared with spectral lines too shallow by 50% and left its analysis faulty. After a complete re-reduction of the individual and the combined TrES-1 spectra, this error did not appear again and its line depths were produced correctly. We have then repeated the analysis described in our previous note and confirm our earlier non-detection of the lithium line at 670.8nm and the $v \sin i$ value of 2.8 ± 0.2 (rms) km s^{-1} . The best fit to the FeI 670.356-nm line (Fig. 2 in the previous note) was now achieved with an iron abundance of 7.46 ± 0.04 though (on the $\log n(\text{H})=12.00$ scale), in very good agreement with the $[\text{Fe}/\text{H}] = 0.00 \pm 0.09$ value put forward by Sozzetti et al. (2004). Fig. 1 shows a new plot of the lithium region that gives the correct line depth of our TrES-1 spectrum. This figure replaces the one in IBVS 5566. Fig. 2 in IBVS 5566 is obsolete.

We apologize for any inconveniences and confusions this may have caused.

Name of the object:	
TrES-1, GSC02652-01324	
Equatorial coordinates:	Equinox:
R.A.= 19 ^h 04 ^m 09 ^s .8 DEC.= +36°37'58"	2000
Observatory and telescope:	
3.6m Canada-France-Hawaii telescope (CFHT), Gecko spectrograph	
Detector:	EEV2 CCD 2048×4600, 13.5μm pixels, -113°C cooled.

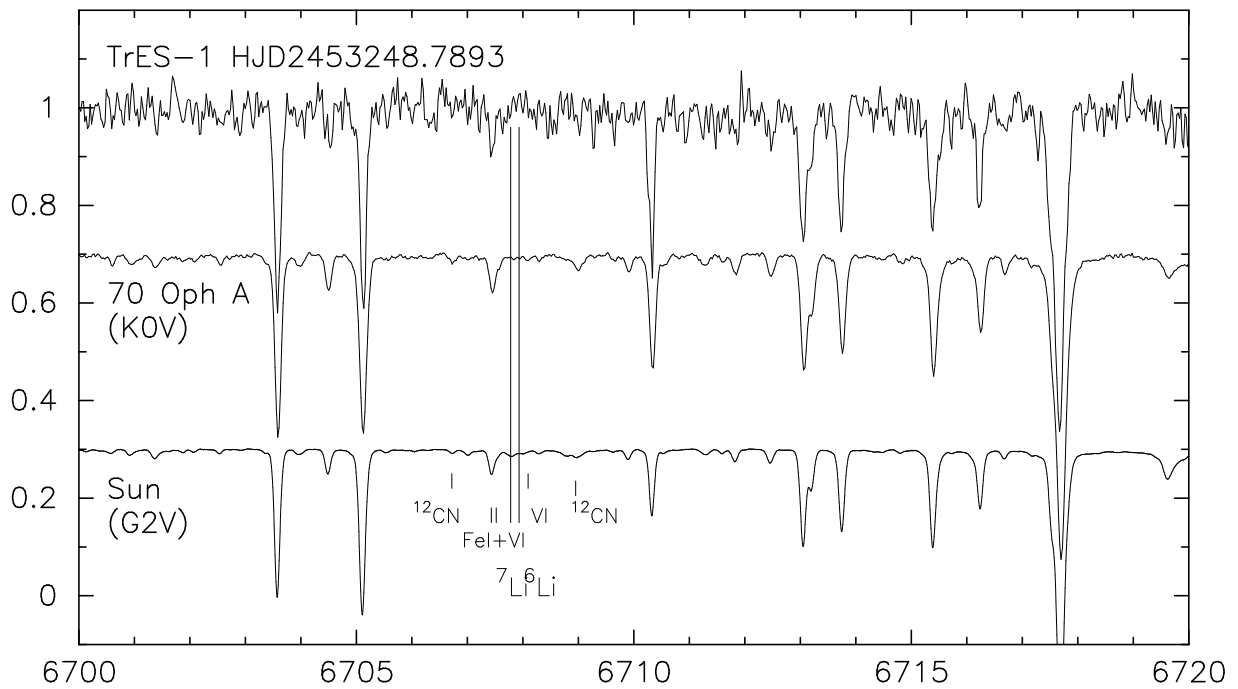


Figure 1. $R=120,000$ spectrum of the lithium region of the TrES-1 parent star (top). The other spectra are comparisons and arbitrarily shifted. Middle spectrum: the K0V-standard star 70 Oph(A) obtained with the same equipment. Lower spectrum: a $R=600,000$ spectrum of the Sun.

Date(s) of the observation(s):

2004.08.31; UT

References:

- Alonso R., Brown T. M., Torres G. et al., 2004, *ApJ*, **613**, L153
 Sozzetti A., Yong D., Torres G. et al., 2004, *ApJ*, **616**, L167
 Strassmeier K. G., Rice J. B., 2004, *IBVS*, 5566