

Interactive comment on “The Aerosol Limb Imager: acousto-optic imaging of limb scattered sunlight for stratospheric aerosol profiling” by B. J. Elash et al.

Anonymous Referee #3

Received and published: 13 January 2016

General comments This paper deals with a new instrument concept for measuring stratospheric aerosols. The topic is interesting and important, analysis is sound and the paper is very well written. I would like to recommend this paper to be published in AMT. I have only a few minor comments:

Specific comments Equations should have numbers. Now some of them have random identification numbers.

p. 8, l. 2: Telecentric and telesopic systems. I am not familiar with these terms. Perhaps you could define them briefly.

Sec. 3.3: Please provide some quantitative estimates of the magnitude of the stray
C4872

light compared to the signal.

p.17, l. 16: The value of z_{ref} ?

p.17, l. 16: Perhaps you should differentiate the observed values from the modeled values by improving notation ('m' or 'model',...).

p. 17, l. 28: Is MART better than, for example, Levenberg-Marquardt minimization? What is the function you minimize by MART? Is it quadratic distance $(y_{obs} - y_{model})^2$ or something else?

Fig. 7: What are the thin horizontal and vertical lines?

Fig. 8: Fig. (a) looks very dark.

Fig. 10. Provide the zenith angle step used to generate the dashed and solid lines.

p.20, l.28: Tack or tackle?

Interactive comment on Atmos. Meas. Tech. Discuss., 8, 13285, 2015.