

## ***Interactive comment on “Spatio-temporal aerosol optical characteristics over the Arabian Sea during the pre monsoon season” by D. G. Kaskaoutis et al.***

**Anonymous Referee #3**

Received and published: 25 December 2009

This paper presents results of a study of aerosol optical depth (AOD) over Arabian Sea using a multi spectral photometer operating at five wave lengths in the range 340nm-1020nm. The data are analyzed in terms of Angstrom coefficients and a second order expression relating  $\ln(\text{wavelength})$  and  $\ln(\text{AOD})$ . The results presented are useful. The presentation lacks generally clarity. There are numerous grammatical mistakes, often obscuring the meaning. Specific comments: 1. The title is inappropriate and needs to be changed. “optical characteristics” is rather broad. Optical characteristics like refractive index and absorption coefficient are not dealt with in this study. 2. Page 22230: line 25: ‘... this method is least imprecise.’ is rather a strong statement. Not warranted. 3. Page 22230: lines 20-25: Two or three typical plots of AOD vs.

C9033

wave length may be shown along with the best fit Angstrom equation (equation 1) and second order polynomial (equation 2). 4. Equations 3-6: What is the meaning in relating errors in the coefficients of equation 2 with the Angstrom exponent in equation 1. Incidentally the correlation between them is low. 5. Figs 4&5 may be omitted as these do not carry any meaning. 6. Page 22235: while comparing the results of AOD and Angstrom exponent in this study with those from literature, it will be appropriate to mention the period (season etc) to which these correspond. 7. Page 22236: lines 24-28: Coast length of >7500km covers both east and west coasts. The figure 40% population living in the coastal belt should be checked. 8. The values of AOD and coefficients in equations 1&2 are quoted up to three decimal places. Two decimal places are enough. 9. The paper appears rather long for the scientific content. It should be considerably shortened (especially sections 4-8) The paper may be published after a revision taking into account the above.

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Interactive comment on Atmos. Chem. Phys. Discuss., 9, 22223, 2009.