

Interactive comment on “A sensitivity study on the effects of particle chemistry, asphericity and size on the mass extinction efficiency of mineral dust in the terrestrial atmosphere: from the near to thermal IR” by R. A. Hansell et al.

Anonymous Referee #2

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Indeed this paper represents an interesting sensitivity study of the dependence of mass extinction efficiency of mineral dust. I recommend the paper for publication. Prior publication I would suggest that the authors expand the discussion and summary sections. What are the implications for satellite retrievals other than AVHRR? Is it possible to use measured valued (field observations and laboratory data) in order to give a best range of likely values? Is it any possible to make recommendations regarding microphysical parameters that should be better constrained by future measurements? some of the tested model (shape mixture by Kalashnikova et al. (2002); hematite content) do not

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see realistic compared to more recent field observations.

Minor comments: Check the reference list, many of them are inconsistent or missing (ex. Farmer).

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 17213, 2010.