

Interactive comment on “Characterisation of episodic aerosol types over the Australian continent” by Y. Qin and R. M. Mitchell

Y. Qin and R. M. Mitchell

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Sorry for the delay in responding - some problems with the web site.

We'll be attempting to track down the source of the super absorbers in future work, and your suggestion of using geostationary images is a good idea.

The MODIS image of the dark plume in the east of Western Australia (6 February 2005) is particularly interesting as its source lies in Spinifex grassland. As mentioned in the paper, this fuel produces very black smoke and is rich in resin, and is a possible candidate for the source of the super absorbing aerosol. As you pointed out to me in separate correspondence, this plume was eventually advected over Tinga Tingana where inversions showed single scattering albedo of ~ 0.8 at 440 nm, poised midway between the class centres of class 1 (fresh smoke) and class 3 (super absorbing), so

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this result is encouraging for the Spinifex hypothesis but inconclusive. Further cases need to be examined to progress this identification.

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 18803, 2008.

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