

Interactive comment on “Numerically exact computation of the optical properties of light absorbing carbon aggregates for wavelength of 200 nm – 12.2 μm ” by M. Kahnert

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This is an interesting study on radiative effects by irregularly shaped LAC particles. It has been clearly shown that ignoring the realistic morphologies can lead to errors in estimated radiative forcing. The author does a good job of explaining how the broadband optics of strongly absorbing LAC and HSA can differ. The numerical simulations seem to be logical and straightforward.

My comments are below:

Page 3: The author calculated AOPs for 5 different geometries. Is this statistically acceptable? Were the differences between broadband optical properties of LAC and

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HSA also evaluated for each of 5 individual geometries? If so, do the results behave similar to those for averaged case?

Page 7: It is not clear to me how the location-specific microphysical parameters of aerosol populations were taken into account. It seems that fixed R_{v0} and σ were considered in Eq. (4).

Page 9: Although the author declared that the real-time calculations are possible, it is not stated what CPU is needed to obtain the overall picture such as in Fig. 9.

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 11885, 2010.

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