

Interactive comment on “MOPSMAP v0.9: A versatile tool for modeling of aerosol optical properties” by Josef Gasteiger and Matthias Wiegner

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First, I would like to note that the authors paid a lot of attention to the accuracy of the DDA simulations, and actually quantified it for several representative cases. That is rare among many publications that use the DDA.

Then, I have a couple of suggestion to improve the corresponding discussion. 1) The authors describe the discretization grid for the DDA in terms of the number of number of dipoles per wavelength. But this quantity is not relevant for particles smaller than the wavelength. I guess, the authors used some fixed number of dipoles for smaller particles, but that is not reflected in the text.

2) The orientation-averaging scheme (described in the Appendix A) seems fine, but it is a bit complicated. Thus, it would help if the authors test it for some simple problem (e.g. moderately-sized spheroid), where a reference solution is available. Or at least, mention the results of such tests in the text.

Finally, I wonder if the DDA can be used for cases where neither TMM or IGOM is available (e.g., for 1:3 spheroids with $m_r < 1.04$ and size parameters of about 30). The DDA is known to be particularly efficient for such regime (m_r close to 1), due to the fast convergence of the (internal) iterative solver. So the authors may at least mention such possibility to extend their dataset.

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Discussion paper

