

Interactive comment on “Classifying aerosol type using in situ surface spectral aerosol optical properties” by Lauren Schmeisser et al.

Anonymous Referee #3

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The authors present an important topic and explore a variety of aerosol classification schemes using an extensive data set with different aerosol types. This analysis allow authors to discuss about the differences between classification schemes and one of the main conclusions is that all classification schemes fail at some point, and some aerosol types are missing. This is, there is no combination of extensive and/or intensive optical properties that allow the perfect classification of aerosol types and it looks like knowing the measurement site is needed, or helps discriminate the aerosol type. This should be included on the conclusions. Also the conclusions should explicitly indicate the specific ideas for future work needed (last paragraph on conclusion section)

The paper is within the scope of ACP and presents an interesting analysis that show the goodness and weakness of the different aerosol classification schemes presented and propose other approaches for the classification of aerosol. I recommend the publication

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of this paper.

Interactive comment on Atmos. Chem. Phys. Discuss., doi:10.5194/acp-2017-38, 2017.

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