

Interactive comment on “Field calibrations of a low-cost aerosol sensor at a regulatory monitoring site in California” by D. M. Holstius et al.

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The paper describes a simple, low-cost device that correlates well with measurements from more expensive and sophisticated instruments and that has the potential to fill a need for more extensive coverage of ambient particulates not currently realizable with existing devices. I am wondering what it would take, and at what cost, to modify the existing device to obtain more detailed information relevant to particle size, number rather than mass concentrations, particle surface areas, and, possibly, particle chemistry. I think much of this could be done in the framework of the current device by looking at multiple scattering angles. While I realize the need to validate/verify performance using

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acceptable mass measurement standards and to define responses that provide equivalent mass readings, we may also be missing or oversimplifying other particle metrics that are more germane to adverse health effects such as particle numbers, surface areas and morphologies.

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