

Review of manuscript acp-2014-976 (version 3)

In general, the authors have sufficiently addressed the comments outlined in the interactive discussion. There is one outstanding issue that I would recommend be addressed before publication, but I will leave this to the discretion of the editor. This paper provides a valuable and thorough long-term study of aerosol and CCN properties in Tucson, AZ. One potential limitation, however, is its very “local” focus. The authors do discuss the broader implications of this work briefly in the fifth paragraph of the conclusions (e.g., “...the results of this study suggest that in certain regimes...there are still opportunities for parametric simplifications to be successful...Since the relationship can be explained by somewhat broad environmental mechanisms not entirely specific to Tucson, similar conclusions can be drawn for other urban areas with comparable geographical and climatological settings.” My intention with comments 3 and 4 in the initial review was to ask the authors to add a more complete discussion of the broader implications and future applications of this work. I think this could be easily addressed with a few short sentences discussing (1) the potential usefulness of their clustering methodology for identifying important physical processes influencing CN and CCN concentrations and properties elsewhere and (2) the potential and degree of need for similar future studies to identify which simplified models describing CCN variability might be applicable in varying geographic regions and climatological conditions.