

Interactive comment on “Sources and atmospheric processing of organic aerosol in the Mediterranean: insights from aerosol mass spectrometer factor analysis” by L. Hildebrandt et al.

Anonymous Referee #2

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In this manuscript, sources and atmospheric processing of organic aerosols in a Mediterranean site is investigated. The presented analysis is carefully made and clearly written. The obtained results, while only moderately original, are interesting enough for the scientific community to merit publication. There are no apparent errors or scientific flaws in the paper. I have only one major, and a couple of very minor suggestions for improvements.

The value of this paper would be substantially enhanced if the authors put their results into a broader context, i.e. how their results compare with those obtained at other

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studies on organic aerosol. A few questions that the readers might be interested in knowing: 1) how do the OA (and EC) levels measured here compare with those in continental Europe, or those in more polluted sites, or those in even more remote environments?, 2) how about the contribution of OA to total submicron particulate matter here and elsewhere?, 3) there are many ways by which OA can be classified, even based on AMS data alone. How do these results compare with classifications made by other, 4) where do these data lie in the f43/f44 "triangle" as compared with what has been observed at other field sites and in laboratory experiments? The authors could write a short sub-section to address these questions or, at the very least, spent a paragraph on this issue.

The paper Pirikdas et al. (2011) referred to in section 3.2 seems to be missing from the references list. The authors should check out the reference list is complete and updated.

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