

## Editor's comments on the revised version of ms. acp-2018-229 by N. Kalivitis et al., entitled "Formation and growth of atmospheric nanoparticles in the eastern Mediterranean: Results from long-term measurements and process simulations"

François Dulac, 24 January 2019

I thank you for your worthwhile revision including an extension of your dataset. I am pleased to accept your revised manuscript for publication in the ChArMEx special issue in ACP pending a few technical corrections listed hereafter (changes in quoted text are underlined):

- Throughout the paper, use the italic style for all variables (e.g. *J*, *CS*, *CoagS*, *Dp*...)
- Page 2, line 18: "we use the MALTE-box model for simulating a case study".
- Page 2, lines 21-22: "The adjusted parameterization resulting from our sensitivity tests was significantly different from the initial one that had been determined for the boreal environment".
- P.4, l.3: "representing one of the longest".
- P. 5, lines 24 and 26: consider changing *CoagS<sub>Dp</sub>* to *CoagS*, used later.
- P. 5, l.26: "of 9-nm particles".
- P.5, l.27: insert a space between number and unit.
- P.6, l.17: specify the meaning of "MCM".
- P.7, l.24: remove "while".
- P.8, l.9: "form the Ozone Monitoring".
- P.8, l.12: it is needed to specify whether downloaded AERONET data are from Version 2 or Version 3 of the product.
- P.8, l.14: insert a space between number and unit (2 occurrences).
- P.11, l.11: do you mean "with a good confidence or not, respectively."?
- P.11, lines 30-31: please consider rephrasing this sentence, presently unclear.
- P.12, l.5: "a seasonal basis".
- P.12, l.10-11: "perhaps explains that given high CS values, new particles need to grow fast in order to survive".
- P.14, lines 5-6: check the sentence, you may have to remove "and is probably due and".
- P.14, l.7: "SMPS detects all particles".
- P.14, l.10: insert a space between number and unit.
- P.15, l.23: "also at another location".
- P. 16, l. 7: "in the eastern Mediterranean".
- Legend of tables: Use "Table N. " rather than "Table N)".
- Legend of Tab. 2: "9-nm particles"; "on a seasonal basis".
- Legend of figures: use "Figure M." rather than "M)"; labels of possible panels must be included with brackets around letters (e.g. "Figure 2. (a) Average [...] June 2018. (b) New particle [...]" ).
- Legend of Figs. 4 and 6: specify "the horizontal line in the box".
- Legend of Fig. 7: "9-nm particles"; "for events when *J<sub>9</sub>*"; express the ordinate (*N<sub>9-25</sub>*) as a function of the abscissae (*J<sub>9</sub>*) rather than the opposite; you can probably limit the x-axis scale at 10, and limit the y-axis scale at 10<sup>4</sup> and/or expand the vertical dimension of the plot for a better readability.

- Legend of Fig. 8: "9-nm particles"; I guess that dotted lines in (c) and (d) show the linear regression, specify and check the line which is hardly visible in (d).
  - Legend of Fig. 10: "the number of NPF events"; the number of common events"; for better readability of the light grey, rather use black for all numbers and "(top)" for AIs, "(middle)" for SMPS, and "(bottom, italic)" for both instruments; check italic style of the 3 for the month 11-2013.
  - Legend of Fig. 11: specify the "event week (i.e. with the most pronounced NPF event observed)".
  - Legend of Figs. 11 and 12: "d)" should read "(a)"; rather write "MALTE-box simulations with the adjusted parameters";
  - Please apply the Copernicus instructions for figure citations as available at [https://www.atmospheric-chemistry-and-physics.net/for\\_authors/manuscript\\_preparation.html](https://www.atmospheric-chemistry-and-physics.net/for_authors/manuscript_preparation.html): The abbreviation "Fig." should be used when it appears in running text and should be followed by a number unless it comes at the beginning of a sentence, e.g.: "The results are depicted in Fig. 5"; Results show [...] (Fig. 3); "Figure 9 reveals that".
  - Colours: in the web page just cited, Copernicus also recommends keeping colour blindness in mind and avoiding the parallel usage of green and red in maps and charts. For a list of colour scales that are illegible to a significant number of readers, please visit <http://colorbrewer2.org/#type=sequential&scheme=BuGn&n=3>, and consider changing the colour codes in Figs 2, 3, 7 and 9.
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