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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Atmospheric pollution concentrations over the Eastern Mediterranean during summer – A review" *by* Uri Dayan et al.

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The authors of this study were pleased that the Referee was satisfied in the way this paper was written and considered carefully most of the comments he made.

General comments: 1) The suggestion to add one sentence in the beginning stressing why summer is more important to review than any other time of the year.

We fully agree with the Referee, accordingly, a paragraph enumerating the essential factors affecting the EM during summer was added at the beginning of the Introduction chapter.

2) The comment made by the Referee on adding an Appendix which will tabulate the abbreviations and notations used.

Since all terms are detailed in the main text, we believe that an Appendix tabulating the abbreviations used in the text is redundant and was therefore not added to the manuscript as suggested by the Referee.

3) The suggestion made by the Referee on adding a Table of Content at the beginning of the paper, if allowed by the Journal's style.

We checked this issue with an Editorial representative of Copernicus Publications and received a negative reply while mentioning that a table of contents should not be included according to their house standards.

4) The comment made on unifying the notation of the PPB and PPBV units used.

We agree with the Referee. PPBV are the volumetric mixing ratios. The notation was unified and corrected throughout the text as well as in Figs. 14, 19, 20, and 21.

5) Comment made by the Referee on the necessity to complete all figure legends and Table headings with a period at the end.

Done.

Minor suggestions:

1) Page 14, line 5 missing quotes "hot pot"; Page 15, line 17 "et al.".

Done.

2) Page 15, line 20: Appropriate reference.

The Referee is right, we apologize for the confusion. The sentence was corrected and the reference of Daskalakis et al., 2015 was omitted.

3) Page 15, line 28: inappropriateness to start a sentence with O3 .

We agree with the Referee and rephrased this sentence with "Measurements of O3"

4) Page 15 lines 28-30 and Page 16 lines 1-3: Comment made by the Referee on

implying on the summer O3 maximum observed over the Aegian Sea and Finokalia based on just two sets of measurements (Finokalia and Thessaloniki).

We fully agree that this paragraph was expressed in a rather confusing manner. Inferring on the summer maximum O3 over the Aegean Sea and Finokalia, Crete was based on several measurements and for rather long periods: 1) An O3 analyzer installed in a vessel traveling routinely from Heraklion, Crete to Thessaloniki, Greece, from Aug. to Nov. 2000, 2) From the regional monitoring station of Finokalia, Crete from Sept.1997 to Sept. 1999 (Kouvarakis et al. 2000) and 3) From a site nearby Thessaloniki (40° 32' N, 23° 50' E) from Mar. 2000 to Jan. 2001. The text was corrected accordingly.

Ref: Kouvarakis, G., K. Tsigaridis, M. Kanakidou, and N. Mihalopoulos, Temporal variations of surface regional background ozone over Crete Island in southeast Mediterranean, J. Geophys. Res., 105, 4399 – 4407, 2000.

5) Page 16, line 11: put a comma after ppbv.

Done.

6) Page line 21-22: pollutants concentrations OR pollutant concentrations?

The right term is "air pollutant concentrations". This term was applied throughout the text.

7) Page 29 line 8: omit coma.

Done.

8) Page 30 line 17: Starting a sentence with CH4 does not seem appropriate.

We tend to agree with the Referee, and started this paragraph as follows: "Methane (CH4) is the most abundant hydrocarbon in the atmosphere. . .."

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