

Associate Editor Decision: Publish subject to minor revisions (review by editor) (09 May 2019) by Willy Maenhaut

Comments to the Author:

The authors have reasonably addressed the comments of the three anonymous referees and they have modified their manuscript accordingly. However, the comments below should be taken into consideration before the manuscript can be published in AMT.

We changed the text following all the requested modifications. We thank the Editor for the accurate work and all the suggestions. We have also improved the figures (removing useless information too) and corrected the number of the last paragraph.

Line 1 and further throughout the manuscript: replace "thermo-optical" by "thermal-optical".

Lines 23 and 169: replace "Genoa (IT)" by "Genoa (Italy)".

Lines 25, 27 and 251: replace "at both the" by "at both".

Lines 43, 94 and 170: replace "e.g. " by "e.g., ".

Line 43: replace "reference therein" by "references therein".

Line 46: replace "Brown Carbon" by "Brown Carbon (BrC)" so that BrC is defined for later use within the main text.

Line 55 and on 8 other occasions further within the text: replace "i.e. " by "i.e., ".

Line 62: replace "of TC, OC and EC" by "of thermal, organic and elemental carbon (TC, OC and EC)" so that TC, OC and EC are defined for later use within the main text.

Lines 70 and 114: replace "well know" by "well-known".

Line 76: replace "to not say" by "not to say".

Line 77: abbreviations and acronyms, here "TOT/TOR" should be defined (written full-out) when first used; thus, replace "TOT/TOR instrument" by "thermal-optical reflectance / thermal-optical transmittance (TOT/TOR) instrument".

Line 84: replace "7-wavelengths" by "7 wavelengths".

Line 84 and further throughout the manuscript: replace "thermal/optical" by "thermal-optical".

Line 86: replace "can be also" by "can also be".

Line 122: replace "smaller of the" by "smaller than the".

Line 148: replace "composed by" by "composed of".

Line 149: replace "MWAA instrument (Multi Wavelength Absorbance Analyzer," by "MWAA instrument ("; MWAA should not be defined again as it was already defined in lines 81-82.

Line 154: replace "the two Sunset" by "the new blue-light and original Sunset".

Line 155: replace "resulted compatible adopting" by "were in excellent agreement for".

Line 161: replace "resulted independent" by "was independent".

Line 171: replace "sizeable contributes of" by "a sizeable contribution from".

Line 182: replace "resulted lower by about 30%" by "resulted in about 30% lower values".

Line 186: replace "e.g.:" by "e.g.,".

Lines 196-197: "and thus possibly more reliable in the EC/OC separation" should be rephrased; a verb is missing here and it is unclear to me what the authors want to say.

Line 204: replace "collected wintertime" by "collected during wintertime".

Line 219: replace "All the samples" by "All filters".

Line 230: replace "well known" by "well-known" and replace "typical marker" by "typical markers".

Line 245: replace "405 nm" by "405 nm,".

Line 249: replace "contribute to" by "contribution to".

Line 263: replace "i.e.:" by "i.e.," and replace "Sunset unit" by "a Sunset unit".

Line 292: replace "obtained in the" by "obtained for the".

Line 320: replace "of the more" by "than is the case for the more".

Line 324: replace "doubles the" by "is twice the".

Line 339: replace "collected mostly" by "collected during mostly".

Line 344: replace "performed in the" by "performed for the".

Line 345: replace "At our" by "To our".

Line 353: replace "definition not" by "definition which is not".

Lines 390-394: "Chen, Y. and Bond, 2010" should come after "Chen, L. W. A. et al., 2015".

Lines 458-462: "Lack, D. A. et al., 2012" should come after "Lack, D. A. and Langridge, 2013".

Line 540: replace "and the comparison" by "and comparison".

Line 555: replace "experimental AAE values" by "experimental AAE (AAEexp) values".

Line 579, Figure 3: within the figure, to the right of the equation in the bottom right corner, replace "405nm" by "635nm".