Response to Co-Editor

Comments to the Author:

The authors have addressed all reviewer's comments and the manuscript has been improved.
I have three minor comments that the authors could take into account for the final version of the manuscript.

Comment a:
The second reviewer is mentioning this and i do not think that there is a clear answer: Figure 1 needs some clarification on what exactly are the data used.

Response a: We have tried to describe the data more clearly by being more explicit, as follows:

“Figure 1 shows the relationship between UVER diffuse fraction (\(f_{UVER}\)) and UVER transmissivity (\(k_{UVER}\)), as derived from Equations (1) and (2), respectively. Thus, the UVER diffuse fraction was obtained as the ratio between the measurements of \(D_{UVER,0}\) and \(G_{UVER,0}\) performed by K&Z radiometers. On the other hand, the UVER transmissivity was calculated as the ratio between the measurements of \(G_{UVER,0}\) and the values of \(G_{UVER,TOA}\) obtained by applying Equation (3).”

Comment b:
On the discussion at page 1 line 34, i think that Zerefos et al., 2012 (https://www.atmos-chem-phys.net/12/2469/2012/) provide an extended discussion on cloud, aerosol, ozone effects on solar radiation for a number of stations. In addition, den Outer et al, 2005 (http://onlinelibrary.wiley.com/doi/10.1029/2004JD004824/pdf) compiled a great study of this aspect on national level. I think both references could be added.

Response b: Both references have been added (page 1, line 34; and list of references).


Comment c: page 4 , line 138 aerosol scattering versus wavelength is basic atmospheric physics so I do not think the Kaskaoutis et al reference is appropriate. A more general reference should be used.

Response c: The reference has been replaced by the more general reference Iqbal [1983], which was already in the list of references.

We would like to thanks the referres for their valuable comments that have improved this manuscript. For that reason, we have been included the following sentence in the Acknowledgements section:

“Thanks to the referees for their comments and suggestions, which notably improved this paper.”