We would like to first express our thanks to the reviewer for his/her constructive comments. The responses to these are below after the reviewer points that are in italics.

-It is suggested that the authors abstain from using the term 'global' in the context of this analysis. Even if all operating AERONET stations at a given time are used, its coverage is by no means global. The oceans are not covered at all and large land-masses: Northern South America, the most of the SH African Continent, most of Asia, and Australia are not covered. Thus referring to AERONET's limited coverage of mainly Eastern US and Western Europe as 'global' is quite a stretch.

We agree that the AERONET coverage is not global. "Global" is not used anymore.

-Why do the authors use different notation on pages 18369 and 18370 for the imaginary refractive index (m and k)?

We were not careful enough with the notation for the imaginary refractive index. Now consistent notation is used.

- Page 18371, 10 measurements per month over how many days per month? Under cloud free conditions 10 measurements could be done in as little as two days.

In our analysis, we focused most closely on six sites and now the details regarding the available data volume are given for these sites in Table 2. It gives the total number of retrievals, days per month having retrievals, different years having retrievals. Also, we plotted boxplots with widths proportional to the data volume.

- How many years of data were used? The length of the record is different for different stations. Some sites like Alta Floresta and GSFC have nearly ten years of data, whereas some sites have just been operated over a few months, generally during field campaigns. The authors should document the uncertainty of the reported results based on the volume of data (which is site dependent) and the assumptions used in the analysis. The statistical uncertainty of the results is not the same at all the sites. How has this been factored-in in the analysis? Error or uncertainty bars should be provided.

Number of years of the selected sites is given in the new table (Table 2).

About the uncertainty. The main uncertainty is clearly related to the a-priori assumption on the imaginary index for OC, which was illustrated in the Figure 4. Now there is an additional approach to assess this uncertainty in terms of mass absorption efficiency (Figure 6 in the revised version). The imaginary index related uncertainty is most significant (as stressed now also in the point 2 in the Conclusions), while non-systematic errors are not only less significant but also much more difficult to estimate in this kind retrieval. In the actual variability, say within one month, some part is due to true OC variability, while random error (due to the uncertainty in AERONET-inversion of imaginary index spectra) is embedded. However, thanks to this very relevant comment by the reviewer, we wanted to give a clearer picture about this total variability. In our earlier plot only monthly mean was shown, while now we plotted these data as boxplots. Therefore, in addition to monthly median, the reader can get an idea about the variability (rather large in many cases). We included notches in the boxplots, as means to see whether different months differ significantly or not. We think these offer now much more information about the retrievals of each month than what was the case earlier with monthly mean only.