

Review Form 1.6

Journal Name:	Asian Journal of Research and Reviews in Physics
Manuscript Number:	Ms_AJR2P_87931
Title of the Manuscript:	Impacts of the Variations of Aerosols Components and Relative Humidity on the Visibility and Particles Size Distribution of the Desert Atmosphere: Validating Results Obtained from OPAC 4.0 Using MERRA-2 Model (Aangstrom Exponent and Extinction Coefficient) Data
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>Calculated data with the model OPAC 4.0 were compared and validated with an 11 years data record (average Angstrom exponent and average extinction coefficient) from MEERA-2 model which is based on satellite observation data. The comparison results are described but there are no conclusions from these results for e. g. input data of these models as completion of standard desert aerosol data etc.</p> <p>The paper addresses relevant scientific questions within the scope of the journal. The scientific methods and assumptions are not well described and outlined so that substantial conclusions and interpretations are open.</p> <p>The description of experiments and analyses is not complete and precise to allow their reproduction by fellow scientists: the data sources of both models are not described.</p> <p>The quality and information of the figures and tables are fine. But the captures are incomplete to understand the information of figures and tables without reading the manuscript.</p> <p>The title reflects the whole content of the paper. The abstract is incomplete because any information about input data is missing.</p> <p>The overall presentation is well structured but incomplete: input information and conclusions from the presented results are missing, it is not clearly figured out what is new in this work in comparison to the available literature in this topic. The language must be improved very much in detail.</p> <p>The mathematical symbols, abbreviations, and units are generally correctly defined and used.</p>	<p>I think a brief explanation about the data source was given in the materials and method section. The paper will be bulky if we go into details about the software and the models used. However, theoretical frame work section is incorporated.</p>
Minor REVISION comments	<p>Why the results of OPAC 4.0 do not show a monthly variation?</p> <p>A lot of references are incomplete: journal titles and doi-numbers are missing.</p>	<p>The dataset gives the microphysical and optical properties for six kinds of water clouds, three ice mists, and 10 aerosols components. the data is accessible at 61 wavelengths in the range of 0.25 and 40 μm for aerosols and clouds, and at 67 wavelengths in the range of 0.28 and 40 μm for ice clouds.</p> <p>The information is given for each case for 1 molecule cm^{-3} which portrays the compelling properties of the combination of all particles in the size distribution. Going by the information given above, it can be understood that OPAC does not incorporate date or months while forming the software package.</p>
Optional/General comments	<p>A lot of shortcomings of the paper, mainly in discussion and conclusion of the results, reduce the value of this scientific work.</p>	

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<p><u>(If yes, Kindly please write down the ethical issues here in details)</u></p>	