



SDI Review Form 1.6

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| Journal Name: | Asian Journal of Geographical Research |
| Manuscript Number: | Ms_AJGR_48510 |
| Title of the Manuscript: | Chemical characterization of aeolian dust deposition in southern and western Iran |
| 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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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) |
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| Compulsory REVISION comments | <ul style="list-style-type: none"> General structure of paper is fine and it is well written. Paper is of current interest and falls in the scope of journal, however, there are following suggestions: <ol style="list-style-type: none"> Please provide validation of modelling. Provide a better version of Figure 1. Text is very blur in this figure. Authors may use TIFF images. Size of text used within figures should be enlarged, see for example figure 3, 4, 5 etc. Nomenclature should be thoroughly rechecked; units should be given in brackets. Also, please provide equations of dimensionless parameters in nomenclature, please incorporate it in the revised version as per journal guidelines. Literature review needs to be updated, there are many studies published recently on this subject especially in current years in reputed journals on the same subject, authors are encouraged to provide a comprehensive literature review. Following papers are much relevant to the present work: <p>(2014), <u>Comparison of Performance Measurements of Photovoltaic Modules during Winter Months in Taxila, Pakistan</u>, Vol. 2014, Article ID 898414, International Journal of Photoenergy.</p> <p>(2015), <u>An Experimental Investigation of Performance of a Double Pass Solar Air Heater with Thermal Storage Medium</u>, Vol. 19, Issue 5, Page 1699-1708, J. Thermal Science.</p> <p>(2015), <u>Enhancement and Integration of Desiccant Evaporative Cooling System Model under Transient Operating Conditions</u>, Vol. 75, Page 1093-1105, Applied Thermal Engineering.</p> <p>(2015), <u>Performance Investigation of Desiccant Evaporative Cooling System Configurations in Different Climatic Zones</u>, Vol. 97, Page 323-339, Energy Conversion and Management.</p> <p>(2015), <u>An Experimental Investigation of Performance of Photovoltaic Modules in Pakistan</u>, Vol. 19, Issue Suppl. 2, Page 525-534, J. Thermal Science.</p> <p>(2015), <u>Performance enhancement of PV cells through micro-channel cooling</u>, Vol. 3(4), Page 699-710, AIMS Energy.</p> <p>(2016), <u>Outdoor Testing of Photovoltaic Modules during Summer in Taxila, Pakistan</u>, Vol. 20, Issue 1, Page 165-173, J. Thermal Science.</p> <p>(2017) <u>Performance Analysis of a Low Capacity Solar Tower Water Heating System in Climate of Pakistan</u>, Vol. 143, Page 84-99, Energy and Buildings.</p> <p>(2017), <u>Effect of Dust Deposition on the Performance of Photovoltaic Modules in Taxila, Pakistan</u>, Vol. 21 (2), Page 915-923, J. Thermal Science.</p> <p>2017), <u>Thermal Analysis of a Mini Solar Pond of Small Surface Area while extracting Heat from Lower Convective Layer</u>, Online, J. Thermal Science.</p> <p>(2017), <u>Experimental and model-based performance investigation of a solid desiccant wheel dehumidifier</u>, Online, J. Thermal Science.</p> <p>(2017), <u>Performance Investigation of Air Velocity Effects on PV Modules under Controlled Conditions</u>, Vol. 2017, Article ID 3829671 (10 Pages), International Journal of Photoenergy.</p> <p>Performance Investigation of Photovoltaic Modules by Back Surface Water</p> | <p>I am grateful for your consideration of this manuscript, and I also very much appreciate your suggestions, and your careful reading which have been very helpful in improving this manuscript.</p> <p>1. Please provide validation of modelling.</p> <p>In this study there are three categories of validity done, [I] content validity, [II] criterion validity, and [III] construct validity. In the following you may find relative validation to every three stages [I], [II], and [III].</p> <p>[I] Content validity: This includes standard sampling method uniformly and an adequate sample from each gauge from 2 (meters) above ground. Spatiotemporal samples were large enough and were taken for appropriate preparation.</p> <p>[II] Criterion validity: Lab preparation, digestion and ICP-MS were done based on the standard. As well as you know the predetermined standard had been tested by prior scientific studies and had been held to be valid.</p> <p>[III] Construct validity: is the degree to which the test actually measures the correlation between elements in the Aeolian dust based on Atmospheric Metal Regulation. Using multiple correlation techniques which is not related to grain size and reference but the major concern with correlation is altered concentration of elements.</p> <p>The procedure I am referring to multiple correlations is called cross-validation. Basically I work with two different groups, a validation group based on (AMR) and a cross validation group. Ultimately, It is enough to show that the set of predictors held up, and therefore are valid.</p> <p>2. Provide a better version of Figure 1. Text is very blur in this figure. Authors may use TIFF images.</p> <p>All figures are in "Tiff" format exported from ArcMap. I tend to make blur the text on world map due to that belongs to the background. But following this suggestion figure one has been changed.</p> <p>3. Size of text used within figures should be enlarged, see for example figure 3, 4, 5 etc.</p> <p>Figures 2, 3, and 4 have been revised and text size changed to 12pt for context and 10pt Bold for the gauge numbers.</p> <p>4. Nomenclature should be thoroughly rechecked;</p> <p>Units have been revised based on guideline</p> <p>5. Literature review needs to be updated, Following papers are much relevant to the present work:</p> <p>I appreciate this suggestion with regard to the literature review but unfortunately none of them is closed to subjects of the manuscript. However, it is really my interest in and totally matched with my work experience. So If you don't mind I would like to keep your comment for the future works.</p> |



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| | <p>Cooling, Vol. 21 (2), Page 290, J. Thermal Science.</p> <ul style="list-style-type: none"> • (2018), <u>Heating and Cooling Degree-Days Maps for Pakistan</u>, 2018, 11(1), 94; doi: 10.3390/en11010094, Energies. • (2018), <u>Experimental investigation of monocrystalline and polycrystalline solar modules at different inclination angles</u>, Vol. 4(2), Page 2137-2148, J. of Thermal Engineering. • (2018), <u>Performance Analysis of Solar Assisted Desiccant Cooling System Cycles in World Climate Zones</u>, Vol. 140(4), 041009, Journal of Solar Energy Engineering: Including Wind Energy and Building Energy Conservation. • (2018), <u>Evaluation of Solar Collectors Designs with Integrated Latent Heat Thermal Energy Storage: A Review</u>, Vol. 166, Page 334-350, Solar Energy. • (2018), <u>Recent advances on thermal conductivity enhancement of phase change materials for energy storage system: A review</u>, Vol. 127, Page 836-856, International J. of Heat and Mass Transfer. • (2016), <u>Experimental investigation of monocrystalline and polycrystalline solar modules at different inclination angles</u>, Online, J. of Thermal Engineering. | |
| Minor REVISION comments | | |
| Optional/General comments | | |

PART 2:

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| | 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? | <i>(If yes, Kindly please write down the ethical issues here in details)</i> | |