Review of: "Experimental Behavior of Solar Still Using Mixed Oxides Mn-Fe/Silicona Resin Composite as Selective Solar Absorber"

Ahmed Saeed Hassanien[1]

1 Benha University

Potential competing interests: No potential competing interests to declare.

Prof. Alberto Bedogni

Dear Respected Editor

Greetings

I hope you are doing well, safe, and in the best condition.

I would like to thank you very much for your email, dated 08 Apr 2024, that is giving me the chance to review the manuscript entitled:

"Experimental Behavior of Solar Still Using Mixed Oxides Mn-Fe/Silicone Resin Composite as Selective Solar Absorber."

In general, and after navigating between all chapters of this submitted manuscript, it was found that the manuscript is interesting and can be accepted for publication after some revisions. There are some comments that must be addressed before considering the manuscript for publication. The remarked comments and criticism should be complied with and replied to. Some major reformulations should be carried out to refine the manuscript.

I would also like to wonder what the novelty of this work is and what its scope is. As well as the manuscript language must be also reviewed and improved. Good English is important in scientific literature. The rating of this manuscript may be less than (3/5).

Comments and criticisms:

* Abstract:

* This main chapter is non-informative, so it should be reformulated to make it richer by including the most important findings and obtained numerical data.

* Generally, the language should be well-revised and improved. The sequence of sentences should be reconsidered. The sentences must also be short (many sentences are longer than two lines), strong, expressive, and informative.

* Introduction:

* In this chapter, the authors should mention the most important usages and the potential applications of the Mixed Oxides MnFe/Silicone Resin Composite.

* The authors must resort to the use of more recent references (the last ten years, 2015-2024) to enrich their manuscripts; the cited references are not sufficient.

* The authors should also mention explicitly what the novelty of this work is and what the differences are between it and the previously published works, as well as the purpose of this work and what the aims are.

* Experimental procedure:

* The authors should provide the details of the used apparatuses and techniques (specifications, models, and the applied measuring procedures).

* All equations must be revised and rewritten accurately in their right forms.

* Results and discussions:

* What do we benefit from X-ray diagrams? Why were the samples not fully characterized? What are the values of the lattice constants? Why were the microstructure parameters not calculated?

* Optical parameters such as absorption coefficient, refractive index, extinction coefficient, etc., had to be calculated.

* The study of "Morphological properties" is a description of the micrographs, and there is no discussion of the results mentioned.

* What are the overall efficiency values? What are the factors that may affect their values?

* In general, this is the most important chapter; I found the discussions to be relatively weak. So, I recommend the authors discuss their results deeply by linking them together to get a scientific finding.

* Conclusions:

* This important part also is not relatively informative. The main findings from this study should be mentioned here. The authors must also relate the results to each other. The authors then mention their recommendations from this article.

* References:

* I recommend using recent references, from 2015 to 2024. I would suggest that the authors make a comparative analysis of the current outcomes with the previous literature and go through the published papers and cite them accordingly.

My decision is:

The manuscript can be accepted for publication in your journal if the above comments and criticisms are responded to and complied with. In addition, the language of the entire manuscript must be well revised (major revisions required).

With my best wishes ,,,

God bless you,

Sincerely yours,

Ahmed Saeed Hassanien, PhD.

Prof. Dr. of Engineering Physics,

Engineering Basic Sciences Dept.,

Faculty of Engineering at Shoubra - Cairo,

Benha University, Egypt

E-mail: a.s.hassanien@gmail.com

Ahmed.hassanien@feng.bu.edu.eg