

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

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Potential competing interests: No potential competing interests to declare.

## General Comments

In this paper, "Experimental Behavior of Solar Still Using Mixed Oxides Mn-Fe/Silicon Resin Composite as Selective Solar Absorber"

The language of the manuscript needs to be edited. In addition, the manuscript suffers from a lack of much information that supports the results achieved. The authors only analyzed the results without adding any scientific contribution showing the effectiveness of Fe-Mn Oxides. It would have been better to work on the doping with several concentrations of Mn in  $\text{Fe}_2\text{O}_3$  and compare them scientifically. However, for this manuscript to be accepted the following issues must be addressed first:

## COMMENTS TO THE AUTHORS:

1. There are numerous sentences throughout the manuscript, which need to be corrected, the language must be well written; authors are requested to take help of native English speaker to correct these errors.
2. Materials and Methods: The authors mentioned "The mixture was precipitated using a concentrated solution of sodium hydroxide  $\text{NH}_4\text{OH}$ ..." Sodium hydroxide is (NaOH), and ammonium hydroxide is ( $\text{NH}_4\text{OH}$ ). What type of hydroxide did you use? Please correct that. If you use NaOH, you need to wash the precipitation powder several times with distilled water to get rid of NaCl. If you use ( $\text{NH}_4\text{OH}$ ), there is no need to wash, as the temperature is sufficient.
3. All equations and formulas mentioned in the manuscript must be numbered.
4. The authors have written "spectral absorptance can be found through the formula  $\alpha(\lambda) = 1 - \rho(\lambda)$ ," But the authors forgot the values of transmittance values. If the samples are very dark, i.e. **zero transmittance**, this must be mentioned in the same section.
5. Crystal Structure: You have a single sample x-ray test and the reflection of the diffraction pattern cannot match the ICDD-PDF 3 cards. Please re-match the ICDD-PDF No. All peaks must match ICDD-PDF No.
6. How to know the oxidation state of iron ( $\text{FeO}$ ,  $\text{Fe}_3\text{O}_4$ ,  $\text{Fe}_2\text{O}_3$ ), you need an XPS test.
7. Please, replace Emittance by Transmittance in Y-axes of the Fig. 4.
8. I didn't see any calculations or related equations of evaporation efficiency or heat transfer coefficients for the sample.

