

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

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Potential competing interests: No potential competing interests to declare.

Comments on the manuscript

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

The manuscript presents an experimental study of a new type of selective solar absorber that could be suitable for solar stills. It also measures the transmittance of cover glass for different glass thicknesses, which is an interesting new result. However, major modifications are needed before publication, as mentioned in the following:

1. In the title, change "silicona" to "silicone."
2. Table 1 is not clear, needs to be rewritten.
3. The absorbance of the Mn-Fe oxide pigment is given in weight %; it would be better to add in vol % as it better represents the coating mixture.
4. Table 2 should include selectivity; however, it does not exist in the table. The method of calculating selectivity must be mentioned in the text.
5. The Mn-Fe oxide with the lowest concentration results in the highest absorptivity and lowest emittance. This needs explanation as the oxide is the main contributor to the optical properties. It would be good if the matrix (silicone) properties, without oxide addition, were also added to help explain the variation in properties.
6. The emittance of 57% is too high, which makes the mixture non-selective.
7. A hybrid solar absorber is mentioned - what is meant by "hybrid"?
8. What is an east condenser and a west condenser? Clarify.
9. Comparison with solar still production in the literature and selective absorber materials

Is needed

1. Tap water and artificial salty water were used; however, no comparison in the resulting amount of produced water is mentioned.
2. Coliforms should be tested if natural seawater was used, but not in the case of tap water.

If these points are taken into consideration, the manuscript would be much better and accepted for publication.

