

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.

In this manuscript, Mn-Fe/silicon resin composite was synthesized and considered as a potential solar absorber for water distillation. Although this is an interesting topic, some aspects should be re-considered by the authors in order to make it acceptable for publication.

1. The innovation for the research undertaken has not been well explained. What is the superiority of Mn-Fe oxide over other materials in this field?

2. Figure 1: The pattern shows a peak at 32° which is not confirmed by Bragg indices. How do the authors justify this? More characterization techniques are needed.

3. What is the exact composition of the synthesized Mn-Fe oxide in this work? It needs to be determined by relevant techniques.

4. There is no discussion of the results in this manuscript! The results need to be compared with previous works. Accordingly, the authors should describe how the mentioned roughness (Figure 5) affects the solar still performance.

5. In the designing of the solar still, why has the slope of the roofs been chosen as 16° ?

6. These sections need to be referenced:

6-1. Main text: "Specifically, the metal-oxide/dielectric composites have showed good thermal performance at low cost, and in particular, as the dielectric is an organic medium such as silicone resin."

6-2. Main text: "Generally, the resins have low electrical and thermal conductivity, although these properties are notably improved by using absorber pigments for solar thermal applications."

6-3. Main text: "The stoichiometry ratio between Fe and Mn strongly influences the optical properties of the composites."

6-4. Main text: "At this point, it is necessary to highlight the fact that . . . Therefore, water production and efficiency will be higher during the summer."

6-5. Main text: "Nature itself, based on the water cycle . . . or brackish water using these prototypes."

7. Main text: "The mixture was precipitated using a concentrated solution of sodium hydroxide NH_4OH ." Correct "sodium hydroxide" to "ammonium hydroxide"!
8. The sentence, "The absorber was made with a mixture of silicone . . . an average emittance of 57.22%," needs punctuation at the end!
9. Figure 7.a: Correct the legend! An additional item has been inserted.
10. The authors should update the references by adding some latest studies.