

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.

1. How do the optical and thermal properties of the synthesized iron-manganese oxides compare to existing selective absorber coatings used in solar stills?
2. Could the authors provide more details on the synthesis process of the iron-manganese oxides, such as the specific conditions used for precipitation and calcination?
3. What specific factors were considered in the optimization of the absorbing surface and condensers for the solar still design, and how were these factors prioritized?
4. Can the authors elaborate on any potential challenges or limitations encountered during the construction and testing of the solar still prototype?
5. How do the results of the water quality analysis compare to established standards and guidelines for drinking water quality, and were there any unexpected findings or discrepancies?
6. Have the authors considered any additional parameters or variables that could potentially influence the performance and efficiency of the solar still, such as environmental conditions or system maintenance?
7. What are the potential scalability and cost implications of implementing this solar still design on a larger scale, particularly in regions facing significant water scarcity challenges?
8. Are there any plans for further research or experimentation to address any remaining uncertainties or to explore potential enhancements to the solar still design?
9. Can the authors provide insights into the long-term durability and stability of the hybrid material used as the selective coating, particularly under extended exposure to harsh environmental conditions?
10. How do the findings of this study contribute to the broader field of solar energy research and water purification technologies, and what avenues for future research do the authors recommend based on their results?