

Review of: "Investigation of the Dielectric Behaviour of Propylene Glycol (100) Dispersed With Graphene Nano Powder to Determine the Optimal Conditions Using Response Surface Methodology"

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Potential competing interests: No potential competing interests to declare.

Investigation of the Dielectric Behaviour of Propylene Glycol (100) Dispersed With Graphene Nano Powder to Determine the Optimal Conditions Using Response Surface Methodology

Response surface methodology (RSM) was used to study the dielectric behavior of a Propylene Glycol-Graphene Nanopowder nanofluid. This study used a 3-11 mm distance and 2.77-3.13 kV breakdown voltage. The goal is to find the best prediction model and solution. The lack of consistency between laboratory behavior and real-world applications and the statistical-mathematical investigation of modelers' performance, contrast, and motives prompted this study. Two models are tested: linear and 2FI.

The detailed comments are as follows:

1. For each equation used in the paper, a reference is needed.
2. The abstract needs improvement to present the novelty of the work.
3. What is the role of graphene?
4. The way of constructing a manuscript is poor.
5. The results section is poorly discussed, especially figures 4, 6, and 7.
6. Nomenclature does not show all the symbols used in the paper.
7. The novelty of the submitted study should be mentioned in the last paragraph of the Introduction.
8. The study's findings should be compared with previous literature studies.
9. Outlook and future perspectives may be given.
10. Error analysis should be added to the paper.
11. Please add more papers published in 2023 and 2024.
12. I recommend giving some related references from the journal to which the manuscript has been submitted.
13. Please add the below papers
14. Alizadeh Jajarm Alireza, Goshayeshi Hamid Reza, Bashirnezhad Kazem, Zahmatkesh Iman. Experimental study of the effect of filling ratio, magnetic field, and inclination angle on thermal performance in a three-dimensional oscillating heat pipe. Journal of Engineering Mechanic. 2023.
15. Malekan Mohammad, Khosravi Ali, Goshayeshi Hamid Reza, El Haj Assad Mamdouh, Jose Juan, Thermal resistance

- modeling of oscillating heat pipes for nanofluids by an artificial intelligence approach, *Journal of Heat Transfer*, (2019).
16. Vasei Moghadam Amir, Goshayeshi Hamid Reza, Chaer Issa Paurine Alex, Zeinali Heris Saeed Experimental investigation of Multiwall Carbon Nanotubes/Water Nanofluid Pool Boiling on Smooth and Groove Surfaces. *Journal of Energy Research*. August 2022. Doi:10.1002/er.8390.
 17. Naserian M, Fahiminia M, Goshayeshi HR. Experimental and Numerical analysis of natural convection heat transfer coefficient of V-type fin configurations, *International Journal of Mechanical Science and Technology*. 27 (7) (2013) 2191~2197 (Springer). DOI 10.1007/s12206-013-0535-7.
 18. Basiri Mehdi, Goshayeshi Hamid Reza, Chaer Issa, Pourpasha Hadi, Zeinali Heris Saeed. Experimental study on heat transfer from rectangular fins in combined convection. *Journal of Heat Transfer*. 2023