|  |  |
| --- | --- |
| Journal Name: | [Asian Basic and Applied Research Journal](https://jofresearch.com/index.php/ABAARJ) |
| Manuscript Number: | **Ms\_ABAARJ\_2027** |
| Title of the Manuscript: | **MHD Maxwell Nanofluid Flow through a Stretching Sheet where Brownian Motion and Thermophoresis Effects are Exhibited** |
| Type of the Article |  |

|  |  |  |
| --- | --- | --- |
|  | **Reviewer’s comment**  **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | **Author’s Feedback** (It is mandatory that authors should write his/her feedback here) |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | The understanding of magnetohydrodynamic (MHD) Maxwell nanofluid behaviour in the presence of Brownian motion and thermophoresis effects—two crucial concepts in contemporary heat and mass transfer applications— is advanced by this publication, which is of great scientific significance. The paper provides important insights into unstable nanofluid dynamics on a stretching surface by integrating radiation and chemical reaction effects into the mathematical model and solving the nonlinear system using a reliable finite difference method. The  findings support the continuous advancement of industrial nanofluid applications, biomedical engineering  procedures, and effective cooling technologies. Additionally, the thorough numerical analysis and visualizations validate theoretical forecasts and serve as a guide for upcoming computational research in nanofluid mechanics. | We are agree to the reviewer comments. |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **Yes** | Yes |
| **Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.** | **Yes** | Yes |
| **Is the manuscript scientifically, correct? Please write here.** | Yes | Yes |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | add the latest work. Must add the following articles  1. Ramya, N., & Deivanayaki, M. (2023). Numerical simulation of Casson micropolar fluid flow over an inclined surface through porous medium. *Journal of Mines, Metals and Fuels*, 2143-2149.  2. Ramya, N., Deivanayaki, M., & Pandurengan, S. (2025). Thermophoresis and Brownian motion effects on the Casson ternary hybrid nanofluid over a horizontal plate containing gyrotactic  microorganisms. *Chemical Physics Impact*, *10*, 100887.  3. Ramya, N., Deivanayaki, M., Kavya, P., Loganathan, K., & Eswaramoorthi, S. (2025). Influence of homogeneous–heterogeneous reactions on micropolar nanofluid flow over an exponentially stretching surface with the Cattaneo–Christov heat flux model. *Discover Applied Sciences*, *7*(6), 1-16.  4. Ramya, N., & Deivanayaki, M. (2025). Influence of Microorganisms on Carreau Nanofluid Flow Through a Darcy-Forchheimer Porous Medium in Magnetohydrodynamic Systems. *Journal of Nanofluids*, *14*(2), 251-258.  5. Ramya, N., Rashmanlou, H., Mofidnakhaei, F., & Sri, K. H. Fuzzy-Based Performance Assessment of  RSA and ECC in Digital Authentication.  6. Ramya, N., Pavithra, J., & Mofidnakhaei, F. Unified Perspective on MHD Nanofluid Simulation and  Fuzzy Graph Applications in Complex Systems.  7. Ramya, N., & Deivanayaki, M. (2025). Impact of Soret and Dufour Effects on Casson Nanofluid Flow in a Magnetic Field along with Heat and Mass Transfer. *Indian Journal of Science and Technology*, *18*(13),  1059-1070.  8. Ramya, N., & Deivanayaki, M. (2024, January). Heat Radiation on Casson Nanofluid Flow over an Inclined Stretching Surface with Heat and Mass Diffusions. In *International Conference on Recent Advancements in Materials Science and Technology* (pp. 355-367). Cham: Springer Nature Switzerland.  9. Ramya, N., Deivanayaki, M., & Mofidnakhaei, F. Fuzzy Logic Analysis of the Effects of Eckert Number on Casson Micropolar Nanofluid Flow over an Inclined Magnetic Field with Chemical Reactions. | Thanks Sir. I have included the mentioned references in the manuscript |

Created by: EA Checked by: ME Approved by: CEO Version: 3(07-07-2024)

|  |  |  |
| --- | --- | --- |
| **Is the language/English quality of the article suitable for scholarly communications?** | Yes |  |
| **Optional/General** comments | 1. highlight the research gap clearly in the last paragraph of the introduction.  2. Which type of nanoparticles you have considered in the study.  3. Also draw some graphs for the stream lines.  4. Add some of the recent publication  5. Which dimensionless parameters were investigated to observe their effects on flow characteristics?  6. The manuscript's language should undergo thorough proofreading to ensure clarity and correctness.  7. The abstract should be revised to emphasize the main results and findings more prominently.  8. All equations should be accurately verified and cited with appropriate references, ensuring that all formulas are properly sourced.  9. Include the relevant research questions in the last paragraph of the introduction to clearly outline the focus of the study.  10. The article needs a thorough revision to fix the spelling and grammar errors.  11. The study lacks comparison with previously published results or validation using experimental or benchmark data.  12. The conclusion section repeats known findings rather than providing new insights or practical implications of the results. | 1. ok Sir  2. I have used 10-100nm particles of metal.  3. Yes, Sir. I have included another 2 graphs for the stream lines.  4. I have included the above mentioned recent articles in references.  5. To observe their effects on flow characteristics the various dimensionless  parameters such as magnetic parameter (M), Maxwell parameter (Mx), Schmidt  number (Sc), Grashof number (Gr), Lewis number (Le) and so on.  6. I have re-write the conclusion part.  7. Ok, Sir  8. Ok, Sir  9. Ok, Sir  10. I have checked the grammar errors within the whole manuscripts  11. Comparison are shown in the last table.  12. I have re-write the conclusion part. |

|  |  |  |
| --- | --- | --- |
| **PART 2:** | | |
|  | **Reviewer’s comment** | **Author’s Feedback** (It is mandatory that authors should write his/her feedback here) |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in details)* | No. |

Created by: EA Checked by: ME Approved by: CEO Version: 3(07-07-2024)