| Journal Name: | **Asian Research Journal of Mathematics** |
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| Manuscript Number: | **Ms_ARJOM_46135** |
| Title of the Manuscript: | **Effect of Vadasz Number on Magnetoconvection in a Darcy Porous Layer With Concentration Based Internal Heating** |
| Type of the Article | |

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PART 1: **Review Comments**

| | Reviewer's comment | Author's comment *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
|---|---|---|
| **Compulsory** REVISION comments | 1. They figures legend labels need to be check and label accordingly. | 1. Figures corrected and now labelled accordingly |
| | 2. The typo graphically errors, wrongly representation of expression, and equations are too much, very difficult to comprehend so many things, need to be revised. | 2. The typo errors, wrong representations has been corrected |
| | 3. The scientific significance is not sufficient and the innovation is not clear. Many of the results presented are not supported with physical reasons. | 3. The scientific significance is properly captured in the introduction |
| | 4. The variation of Nusselt and Sherwood number should be incorporated in the studies. | 4. This paper is about the onset of instability, which may not include finite amplitude and represented by Nusselt number and Sherwood number respectively for heat and mass transfer, hence not part of the work |
| | 5. The author should update the write up by incorporating the following relevant published articles: | 5. The suggested papers to be included are not related in any way to stability problems, hence not included |
| | Daniel YS, Aziz ZA, Ismail Z, Salah F. Effects of thermal radiation, viscous and Joule heating on electrical MHD nanofluid with double stratification. Chinese Journal of Physics. 2017 Jun 1;55(3):630-51. | |
| | Daniel YS, Daniel SK. Effects of buoyancy and thermal radiation on MHD flow over a stretching porous sheet using homotopy analysis method. Alexandria Engineering Journal. 2015 Sep 1;54(3):705-12. | |
| | Daniel YS, Aziz ZA, Ismail Z, Salah F. Numerical study of Entropy analysis for electrical unsteady natural magnetohydrodynamic flow of nanofluid and heat transfer. Chinese Journal of Physics. 2017 Oct 1;55(5):1821-48. | |
| | Daniel YS, Aziz ZA, Ismail Z, Salah F. Entropy Analysis of Unsteady Magnetohydrodynamic Nanofluid over Stretching Sheet with Electric Field. International Journal for Multiscale Computational Engineering. 2017;15(6). | |
| | Daniel YS, Aziz ZA, Ismail Z, Salah F. Slip Effects on Electrical Unsteady MHD Natural Convection Flow of Nanofluid over a Permeable Shrinking Sheet with Thermal Radiation. Engineering Letters. 2018 Jan 1;26(1). | |
| | Daniel YS. Laminar convective boundary layer slip flow over a flat plate using homotopy analysis method. Journal of The Institution of Engineers (India): Series E. 2016 Oct 1;97(2):115-21. | |
| | Daniel YS, Aziz ZA, Ismail Z, Salah F. Effects of slip and convective conditions on MHD flow of nanofluid over a porous nonlinear stretching/shrinking sheet. Australian Journal of Mechanical Engineering. 2018 Sep 2;16(3):213-29. | |
| | Daniel YS. Steady MHD laminar flows and heat transfer adjacent to porous stretching | |

| | sheets using HAM. American Journal of Heat and Mass Transfer. 2015;2(3):146-59.<br><br>Daniel YS, Aziz ZA, Ismail Z, Salah F. Entropy analysis in electrical magnetohydrodynamic (MHD) flow of nanofluid with effects of thermal radiation, viscous dissipation, and chemical reaction. Theoretical and Applied Mechanics Letters. 2017 Jul 1;7(4):235-42.<br><br>Daniel YS. Steady MHD boundary-layer slip flow and heat transfer of nanofluid over a convectively heated of a non-linear permeable sheet. Journal of Advanced Mechanical Engineering. 2016;3(1):1-4.<br><br>Daniel YS, Aziz ZA, Ismail Z, Salah F. Impact of thermal radiation on electrical MHD flow of nanofluid over nonlinear stretching sheet with variable thickness. Alexandria Engineering Journal. 2017 Aug 12.<br><br>Daniel YS. Presence of heat generation/absorption on boundary layer slip flow of nanofluid over a porous stretching sheet. American Journal of Heat and Mass Transfer. 2015;2(1):15-30.<br><br>Daniel YS, Aziz ZA, Ismail Z, Salah F. Double stratification effects on unsteady electrical MHD mixed convection flow of nanofluid with viscous dissipation and Joule heating. Journal of Applied Research and Technology. 2017 Oct 1;15(5):464-76.<br><br>Daniel YS, Aziz ZA, Ismail Z, Salah F. Thermal stratification effects on MHD radiative flow of nanofluid over nonlinear stretching sheet with variable thickness. Journal of Computational Design and Engineering. 2018 Apr 1;5(2):232-42.<br><br>Daniel YS, Aziz ZA, Ismail Z, Salah F. Thermal radiation on unsteady electrical MHD flow of nanofluid over stretching sheet with chemical reaction. Journal of King Saud University-Science. 2017 Oct 16. | |
| **Minor** REVISION comments | | |
| **Optional/General** comments | | |

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| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in details)* | |