

Journal Name:	Asian Journal of Research and Review in Physics
Manuscript Number:	Ms_AJR2P_42678
Title of the Manuscript:	Transient MHD Natural Convective Flow Past a Heated Vertical Non-porous Surface with Thermal Radiation and Double-Diffusion Effects.
Type of the Article	Review Paper

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

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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)
<u>Compulsory</u> REVISION comments	Comments of the manuscript entitled "Transient MHD Natural Convective Flow Past a Heated Vertical Non-porous Surface with Thermal Radiation and Double-Diffusion Effects". File No. Ms_AJR2P_42678. 1- In the introduction section the references are mention with the reference number only, it its better to mention the name of the first author. 2- The novelty of the paper need to be illustrated in the introduction section. 3- In Eq. (2) the last term is incorrect it is $\rho g \beta_c (C - C_\infty)$. 4- The boundary condition Eq. (6)	1. Different Journals have their reference formats. What you said is not in line with the given SDI Template. 2. This has been done. Check lines 153-155 3. This has been corrected Check line 188. 4. The error in the equation has been rectified. See line 194. 5. The error in the equation has been rectified. See line 194. 6. The physical assumption of this value is that the fluid is optically thin/transparent as its depth of penetration α is far less than one, and density is relatively low to allow long photon travel. See lines 200 and 201. 7. There are many versions of similarity transformation equations. Equation (15) is used

	is not correct the velocity $u \rightarrow U_{\infty}$. 5- The boundary conditions in Eq. (6) are at $t > 0$. What are the initial conditions at $t = 0$? 6- After Eq. (7) the statement "in which case, $\alpha < 1$." What is the physical assumption of this value? It needs more physical explanation. 7- In the similarity solution Eq. (15) what is the assumption of the normal velocity v? Is this assumption satisfying the continuity equation (1)? 8- In the description of the solutions lines 302, 303, "...equations (23)-(27) has <u>empty solutions</u> within the specified region..." what is the meant of "<u>empty solutions</u>", please add more explanations and it is better to add the final form of the solution. 9- What is the horizontal coordinate of Fig. 3? The Nusselt number is plotted versus what? And the same comment is observed for Fig.5,8,9, 15. 10- The boundary conditions for the concentration Eq. (14) indicate that $\phi:1 \rightarrow 0$. But the curves of the concentration in Fig. 7 are not meet at 1 and meet at the ends at zero? The same	when the normal velocity v is assumed to be the suction, which can be a constant (zero, or non-zero) or a variable function. The assumption $v=c=0$ satisfies the continuity equation. The other version of similarity transformation is given as $\eta=(U/ux)^{1/2}y$, $\psi=(Uux)^{1/2}f(\eta)$ and $u = \frac{\partial \psi}{\partial y}$, $v = -\frac{\partial \psi}{\partial x}$ 8. By 'empty solutions' we mean that the solutions are zero. And, this has been added. Check line 264. 9. These errors have been rectified. Check the said diagrams. 10. By eqn (21), at the origin $y=0$, $\Phi_0=1$, $\Theta_0=1$. Also, by eqn (14), which expanded into (22) and (27), at $y=\infty$, $\Phi_1=0$, $\Theta_1=0$. By the analysis of the solutions, the order one equations have zero solutions. Therefore, they have no significant effects on the general solutions, and subsequently no effect on the said curves. The curves in question emanated from the order zero solutions. So, by eqn (21), the said curves are very much in order. They are 1 at $y=0$, and tend to zero as y tends to infinity (see eqn 22, too)
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	irregular behavior seems in Fig 10 for the temperature profiles and in Fig. 14 for the velocity profiles?	
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