

boundary layer. Chemical reaction parameter reduces the concentration boundary layer. Soret values increase the fluid concentration. Dufour parameter induces increment in the velocity and temperature.

REFERENCES

- [1] Chamkha, A.J., Ben-Nakhi, A.L. (2008). MHD mixed convection-radiation interaction along a permeable surface immersed in a porous medium in the presence of Soret and Dufour's effects. *Heat and Mass Transfer*, 44(2008): 845-856. <https://doi.org/10.1007/s00231-007-0296-x>
- [2] Alam, M.S., Rahman, M.M. (2006). Dufour and Soret effects on mixed convection flow past a vertical porous flat plate with variable suction. *Nonlinear Analysis: Modelling and Control*, 11(1): 3-12.
- [3] El-dabe, N.T.M., Hassan, M.A., Godh, W.A. (2013). Unsteady magnetohydrodynamic free convection flow past a semi-infinite permeable moving plate through porous medium with chemical reaction and radiation absorption. *Journal of Heat Transfer*, 135: 024501-(1-5). <https://doi.org/10.1115/1.4007474>
- [4] Hakeem, A.K.A., Kalaivanan, R., Ganesh, N.V., Ganga, B. (2014). Effect of partial slip on hydromagnetic flow over a porous stretching sheet with non-uniform heat source/sink. *Thermal Radiation and Wall Mass Transfer, Ain Shams Engineering Journal*, 5: 913-922. <https://doi.org/10.1016/j.asej.2014.02.006>
- [5] Sivasankaran, S., Niranjan, H., Bhuvanewari, M. (2017). Chemical reaction, radiation and slip effects on MHD mixed convection stagnation point-flow in a porous medium with convective boundary condition. *International Journal of Numerical Methods for Heat & Fluid Flow*, 27(2): 454-470. <https://doi.org/10.1108/HFF-02-2016-0044>
- [6] Bhuvanewari, M., Sivasankaran, S., Kim, Y.J. (2012). Lie group analysis of radiation natural convection flow over an inclined surface in a porous medium with internal heat generation. *Journal of Porous Media*, 15(12): 1155-1164. <https://doi.org/10.1615/JPorMedia.v15.i12.80>
- [7] Kasmani, R.M., Sivasankaran, S., Bhuvanewari, M., Siri, Z. (2016). Effect of chemical reaction on convective heat transfer of boundary layer flow in nanofluid over a wedge with heat generation/absorption and suction. *Journal of Applied Fluid Mechanics*, 9 (1): 379-388. <https://doi.org/10.18869/acadpub.jafm.68.224.24151>
- [8] Niranjan, H., Sivasankaran, S., Bhuvanewari, M. (2016). Analytical and numerical study on magneto convection stagnation-point flow in a porous medium with chemical reaction, radiation and slip effects. *Mathematical Problems in Engineering*, Article ID 4017076.
- [9] Eswaramoorthi, E., Bhuvanewari, M., Sivasankaran, S., Rajan, S. (2016). Soret and Dufour effects of viscoelastic boundary layer flow, heat and mass transfer in a stretching surface with convective boundary condition in the presence of radiation and chemical reaction. *Scientia Iranica B*, 23(6): 2575-86. <https://doi.org/10.24200/SCI.2016.3967>
- [10] Chamkha, A.J., Aly, A.M., Mansour, M.A. (2010). Similarity solution for Unsteady heat and mass transfer from a stretching surface embedded in a porous medium with suction/injection and chemical reaction effects. *Chemical Engineering Communications*, 197: 846-858. <https://doi.org/10.1080/00986440903359087>
- [11] Tsai, R., Huang, J.S. (2009). Heat and mass transfer for Soret and Dufour's effects on Hiemenz flow through porous medium onto a stretching surface. *International Journal of Heat and Mass Transfer*, 52: 2399-2406. <https://doi.org/10.1016/j.ijheatmasstransfer.2008.10.017>
- [12] Manglesh, A., Gorla, M.G. (2013). MHD Free convective flow through porous medium in the presence of hall current, radiation and thermal diffusion. *Indian Journal of Pure and Applied Mathematics*, 44(6): 743-756. <https://doi.org/10.1007/s13226-013-0040-9>
- [13] Karthikeyan, S., Bhuvanewari, M., Sivasankaran, S., Rajan, S. (2016). Soret and Dufour effects on MHD mixed convection heat and mass transfer of a stagnation point flow towards a vertical plate in a porous medium with chemical reaction, radiation and heat generation. *Journal of Applied Fluid Mechanics*, 9(3): 1447-1455. <https://doi.org/10.18869/acadpub.jafm.68.228.24135>
- [14] Beg, O.A., Prasad, V.R., Vasu, B., Reddy, N.B., Li, Q., Bhargava, R. (2011). Free convection heat and mass transfer from an isothermal sphere to a micropolar regime with Soret/Dufour effects. *International Journal of Heat and Mass Transfer*, 54: 9-18. <https://doi.org/10.1016/j.ijheatmasstransfer.2010.10.005>
- [15] Mansour, M.A., EL-Anssary, N.F., Aly, A.M. (2008). Effect of chemical reaction and thermal stratification on MHD free convective heat and mass transfer over a vertical stretching surface embedded in a porous media considering Soret and Dufour numbers. *Chemical Engineering Journal*, 145: 340-345. <https://doi.org/10.1016/j.cej.2008.08.016>
- [16] Bhuvanewari, M., Sivasankaran, S., Ferdows, M. (2009). Lie group analysis of natural convection heat and mass transfer in an inclined surface with chemical reaction. *Non-Linear Analysis: Hybrid Systems*, 3(4): 536-542. <https://doi.org/10.1016/j.nahs.2009.04.004>
- [17] Kasmani, R.M., Sivasankaran, S., Bhuvanewari, M., Hussein, A.K. (2017). Analytical and numerical study on convection of nanofluid past a moving wedge with Soret and Dufour effects. *International Journal of Numerical Methods Heat & Fluid Flow*, 27: 2333-2354. <https://doi.org/10.1108/HFF-07-2016-0277>
- [18] Niranjan, H., Sivasankaran, S., Bhuvanewari, M. (2017). Chemical reaction, soret and dufour effects on MHD mixed convection stagnation point flow with radiation and slip condition. *Scientia Iranica – Transactions. B: Mechanical Engineering*, 24: 698-706. <https://doi.org/10.24200/SCI.2017.4054>
- [19] Sharidan, S., Mahmood, T., Pop, I. (2006). Similarity solutions for the unsteady boundary layer flow and heat transfer due to a stretching sheet. *Int. J. Appl. Mech. Eng.*, 11: 647-654.