

# Variable chemical process and radiative nonlinear impact on MHD Cross nanofluid: An approach towards controlling the global warming

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February 22, 2024

## Abstract

Solar energy is basic source of renewable energy, and it is being used for controlling the global pollutions/warming. As cross nanofluid is very useful for upgrading the solar energy systems efficiency so it is engaged for cooling the solar devices. In this paper for analysis of global warming heat equation is modeled by incorporating the nonlinear thermal radiation by using the exponentially extendable surface, because it keeps major role related to solar energy absorption of nanofluid. Furthermore, the mathematical modeling of cross nanofluid involving magnetic effect and diffusion is discussed by using the fact of chemical reaction. Chemical reaction finds astonishing applications regarding pollution studies, chemical processing equipment, polymer production. As a result of this study, it is noticed that more magnetized the conducting fluid controls the motion of fluids for both case of shear thinning and shear thickening. Brownian motion parameter  $N_b$  tells the rate the random motion of nanoparticle. Increased  $N_b$  temperature is also increases due to these random movement of nanoparticles. That is the reason when pollutant nanoparticles spreading in air as a result global warming increase.

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