

Nomenclature

S	Cauchy stress tensor
I	Identity vector
τ	Extra stress tensor(Shear stress)
P	Pressure
Γ	Fluid time constant
A_1	First Rivlin-Erickson tensor
$\dot{\gamma}$	Second invariant rate of strain tensor
μ_∞	Infinite shear rate viscosity
μ	Dynamic viscosity
p_i	Power index
V	Velocity vector
x	Coordinate along the x -axis
y	Coordinate along the y -axis
u, v	Velocity components with respect to x and y axis
t	Time
U_0	Uniform velocity of the plate
U_e	External velocity
U_w	Stretching sheet velocity
v_w	Injection/Suction velocity
m	Nonlinear parameter
F_L	Lorentz force
J	Current density
T	Temperature
θ	Dimensionless temperature
C	Concentration
ϕ	Dimensionless concentration
T_w	Temperature at the wall
C_w	Concentration at the wall
T_∞	Free stream temperature

C_∞	Free stream concentration
C_p	Specific heat at constant pressure
C_s	Concentration susceptibility
μ	Dynamic viscosity
ν	Kinematic viscosity
ρ	Fluid density
σ	Electrical conductivity
g	Acceleration due to gravity
β_T	Volumetric coefficient of thermal expansion
β_C	Volumetric coefficient of concentration expansion
$\mathcal{B}$	Magnetic field strength
B_0	Uniform magnetic field
M	Magnetic parameter
κ	Thermal conductivity
Pr	Prandtl number
A	Unsteadiness parameter
D_M	Mass diffusion coefficient
K_T	Thermal diffusion ratio
Gr_T	Thermal Grashof number
Gr_C	Solutal Grashof number
Sc	Schmidt number
q_r	Radiative heat flux
σ^*	Stefan Boltzmann coefficient
k^*	Mean absorption coefficient
q_w	Heat flux at surface
Rd	Radiation parameter
We	Weissenberg number
B	Stretching/Shrinking parameter
K	Micropolar parameter
λ_3, λ_4	Micropolar fluid parameters
j	Microinertia density
k	Vortex viscosity
γ^*	Spin gradient viscosity
η	Similarity variable
ψ	Stream function
$f(\eta)$	Dimensionless stream function
$f'(\eta)$	Dimensionless velocity

Du	Dufour number
Sr	Soret number
q	Embedding parameter
ζ	Variable viscosity parameter
θ_w	Temperature ratio parameter
f_w	Suction/injection parameter
μ^*	Constant viscosity
Q^*	Heat source/sink per unit mass
β	Heat absorption/generation parameter
T_m	Initial temperature of the fluid
ψ	Stream function
Re_x	Reynolds number
C_{fx}	Skin friction coefficient
τ_w	Shear stress at surface
Nu_x	Nusselt number
q_m	Mass flux at surface
Sh_x	Sherwood number
S_G	Generation of Entropy
N_G	Entropy generation rate
Be	Bejan number
α_1	Temperature Difference parameter
α_2	Concentration Difference parameter
γ	first-order velocity slip parameter
l	Molecular free mean path
h_{ft}	Convective heat transport
h_{fc}	Convective mass transport
Ec	Eckert number
λ_1	Thermal Biot number
λ_2	Solutal Biot number
Br	Brinkman number
K_c	Chemical reaction parameter
E_0	Applied electric field
E	Electric parameter
n	Micro elements concentration