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NOMENCLATURE

A, A_1, A_2	Sisko fluid parameter (-)
B_0	magnetic component, (Wb m^{-2})
C_f	skin-friction, (-)
C_p	specific heat at constant pressure, ($\text{J kg}^{-1} \text{K}^{-1}$)
D_a	Darcy number, (-)
D_B	The Brownian diffusion coefficient, (-)
D_u	Dufour number, (-)
E_c	Eckert number, (-)
G_r	Grashof number, (-)
G'_c	modified Grashof number, (-)
K'	the permeability of the porous medium, (-)
k_e	mean absorption coefficient
K_r	chemical reaction parameter, (-)
L_e	Lewis number, (-)
N_b	The Brownian parameter, (-)
N_t	thermophoresis parameter, (-)
N_u	local Nusselt number, (-)
P_r	Prandtl number, (-)
Q	heat source parameter, (-)
q_r	unidirectional radiative heat flux, (kg m^{-2})
Q_1	radiation absorption, (-)
R	radiation parameter (-)
S_h	Sherwood number, (-)
T	Fluid temperature, (K)
T_w	The temperature at the plate surface, (K)
T_∞	ambient temperature as y tends to infinity, (K)
U_0	uniform velocity
u, v	velocity components
x, y	Cartesian coordinates

Greek symbols

β	thermal expansion coefficient
β^*	concentration expansion co-efficient
κ	thermal conductivity, ($\text{Wm}^{-1} \text{K}^{-1}$)
μ	dynamic viscosities
ν	kinematic viscosity, ($\text{m}^2 \text{s}^{-1}$)
ρ	the density of the fluid, (kg m^{-3})
σ	electric conductivity
σ_s	Stefan-Boltzmann constant, $5.6697 \times 10^{-8} \text{ (W/m}^2\text{K}^4)$