

LIST OF SYMBOLS AND ABBREVIATIONS

a^*	-	Absorption coefficient
g	-	Acceleration due to gravity
K_l	-	Chemical reaction parameter
$erfc$	-	Complementary error function
A	-	Constants
x	-	Coordinate axis along the plate
y	-	Coordinate axis normal to the plate
C	-	Dimensionless concentration
Y	-	Dimensionless coordinate axis normal to the plate
U	-	Dimensionless velocity
q	-	Heat flux per unit area at the plate
D	-	Mass diffusion coefficient
\dot{f}''	-	Mass flux per unit area at the plate
Gr	-	Mass Grashof number
K	-	Non-dimension chemical reaction parameter
Pr	-	Prandtl number
C'	-	Species concentration in the fluid
C_p	-	Specific heat at constant pressure
Sc	-	Schmidt number
T_∞	-	Temperature of the fluid far away from the plate
T	-	Temperature of the fluid near the plate
k	-	Thermal conductivity
Gr	-	Thermal Grashof number
t'	-	Time
u	-	Velocity of the fluid in the x -direction

u_0 - Velocity of the plate

Greek letters

μ - Coefficient of viscosity

ρ - Density of the fluid

θ - Dimensionless temperature

ν - Kinematic viscosity

η - Similarity parameter

σ - Stefan-Boltzmann constant

β^* - Volumetric coefficient of expansion with concentration

β - Volumetric coefficient of thermal expansion

Subscripts

w - Conditions at the wall

∞ - Free stream conditions