

FIGURES CAPTION

Figure 1.1:	Induced Current in a Moving Conductive Fluid in the Presence of a Magnetic Field	7
Figure 1.2:	Relation between Faraday's Law and Lorentz Force.	12
Figure 2.1:	Physical Sketch of the Problem.	32
Figure 2.2:	Velocity profile for y and Nr at $t = 0.5, M = 3, Gr = 5, \phi = 0.03, Pr = 6.2$.	39
Figure 2.3:	Velocity profile for y and M at $t = 0.5, Gr = 5, \phi = 0.03, Pr = 6.2, Nr = 0.5$.	39
Figure 2.4:	Velocity profile for y and t at $M = 3, Gr = 5, \phi = 0.03, Pr = 6.2, Nr = 0.5$.	40
Figure 2.5:	Velocity profile for y and Gr at $M = 3, t = 0.5, \phi = 0.03, Pr = 6.2, Nr = 0.5$.	40
Figure 2.6:	Velocity profile for y and Pr at $M = 3, t = 0.5, \phi = 0.03, Gr = 5, Nr = 0.5$.	41
Figure 2.7:	Temperature profile for y and Nr at $M = 3, t = 0.5, \phi = 0.03, Gr = 5, Pr = 6.2$.	41
Figure 2.8:	Temperature profile for y and Pr at $M = 3, t = 0.5, \phi = 0.03, Gr = 5, Nr = 0.5$.	42
Figure 2.9:	Temperature profile for y and t at $M = 3, Nr = 0.5, \phi = 0.03, Gr = 5, Pr = 6.2$.	42
Figure 2.10:	Velocity profile for different Nanofluids and Nr at $M = 3, t = 0.5, \phi = 0.03, Gr = 5, Pr = 6.2, \omega = 0$.	43
Figure 2.11:	Temperature profile for different Nanofluids at $Nr = 0.5, M = 3, t = 0.5, \phi = 0.03, Gr = 5, Pr = 6.2, \omega = 0$.	43
Figure 2.12:	Nusselt number for Pr and t at $M = 3, \phi = 0.03, Gr = 5, Nr = 0, \omega = 0$.	44
Figure 2.13:	Nusselt number for Nr and t at $M = 3, \phi = 0.03, Gr = 5, Pr = 6.2, \omega = 0$.	44
Figure 2.14:	Skin friction for Pr and t at $M = 3, \phi = 0.03, Gr = 5, Nr = 0, \omega = 0$.	45
Figure 2.15:	Skin friction for Nr and t at $M = 3, \phi = 0.03, Gr = 5, Pr = 6.2, \omega = 0$.	45
Figure 3.1.1:	Physical sketch of the Problem.	52
Figure 3.1.2:	Velocity profile u for y and ϕ at $\omega = \pi, Pr = 6.2, M = 0.5, Sc = 0.66, Gm = 5, Gr = 10, \kappa = 0.4$ and $t = 0.4$.	64
Figure 3.1.3:	Velocity profile u for y and κ at $\omega = \pi, Pr = 6.2, M = 0.5, Sc = 0.66, Gm = 5, Gr = 10, \phi = 0.03$ and $t = 0.4$.	64
Figure 3.1.4:	Velocity profile u for y and Sc at $\omega = \pi, Pr = 6.2, M = 0.5,$	65

	$\kappa = 0.4, Gm = 5, Gr = 10, \phi = 0.03$ and $t = 0.4$.	
Figure 3.1.5:	Velocity profile u for y and M at $\omega = \pi, Gr = 10, Pr = 6.2, \kappa = 0.4,$ $Sc = 0.66, Gm = 5, \phi = 0.03$ and $t = 0.4$.	65
Figure 3.1.6:	Temperature profile θ for y and ϕ at $\omega = \pi, Gr = 10, Pr = 6.2, M = 0.5,$ $\kappa = 0.4, Sc = 0.66, Gm = 5$ and $t = 0.4$.	66
Figure 3.1.7:	Concentration profile C for y and Sc at $\omega = \pi, Gr = 10, Pr = 6.2,$ $M = 0.5, \kappa = 0.4, Gm = 5, \phi = 0.03$ and $t = 0.4$.	66
Figure 3.1.8:	A graph showing the grid independency.	67
Figure 3.2.1:	Physical sketch of the Problem.	72
Figure 3.2.2:	Velocity profile for y and ϕ at $\gamma = 0.6, \kappa = 0.4, Sc = 0.5, Gm = 4,$ $t = 0.6, M = 3, Gr = 8, Nr = 5$ and $Pr = 6.2$.	81
Figure 3.2.3:	Velocity profile u for y and γ at $\kappa = 0.4, Sc = 0.5, Gm = 4, t = 0.6, M =$ $3, Gr = 8, \phi = 0.02, Nr = 5$ and $Pr = 6.2$.	81
Figure 3.2.4:	Velocity profile u for y and M at $\gamma = 0.6, \kappa = 0.4, Sc = 0.5,$ $Gm = 4, t = 1, Gr = 8, \phi = 0.02, Nr = 5$ and $Pr = 6.2$.	82
Figure 3.2.5:	Velocity profile u for y and Nr at $\gamma = 0.6, \kappa = 0.4, Sc = 0.5,$ $Gm = 4, t = 0.6, M = 3, Gr = 8, \phi = 0.02$ and $Pr = 6.2$	82
Figure 3.2.6:	Temperature profile for y and Nr at $\gamma = 0.6, \kappa = 0.4, Sc = 0.5,$ $Gm = 4, t = 0.6, M = 3, Gr = 8, \phi = 0.02$ and $Pr = 6.2$	83
Figure 3.2.7:	Temperature profile θ for y and Pr at $\gamma = 0.6, \kappa = 0.4,$ $Sc = 0.5, Gm = 4, t = 0.6, M = 3, Gr = 8, \phi = 0.02$ and $Nr = 5$.	83
Figure 3.2.8:	Concentration profile C for y and Sc at $\gamma = 0.6, \kappa = 0.4,$ $Gm = 4, t = 0.6, M = 3, Gr = 8, \phi = 0.02, Nr = 5$ and $Pr = 6.2$.	84
Figure 3.2.9:	Skin Friction for ϕ and t at $\gamma = 0.6, \kappa = 0.4, Sc = 0.5,$ $Gm = 4, M = 3, Gr = 8, Nr = 5$ and $Pr = 6.2$	84
Figure 3.2.10:	Nusselt number for ϕ and t at $\gamma = 0.6, \kappa = 0.4, Sc = 0.5,$ $Gm = 4, M = 3, Gr = 8, \phi = 0.02, Nr = 5$ and $Pr = 6.2$	85
Figure 4.1:	Physical sketch of the Problem	90
Figure 4.2:	profile u for y and ϕ at $\kappa = 0.4, Sc = 0.22, Gm = 10,$ $Gr = 5, Sr = 15, R_\gamma = 10, Nr = 5, H = 10$ and $t = 0.4$	97
Figure 4.3:	Temperature profile θ for y and ϕ at $\kappa = 0.4, Sc = 0.22, Gm = 10,$ $Gr = 5, Sr = 15, R_\gamma = 10, Nr = 5, H = 10$ and $t = 0.4$	97
Figure 4.4:	Velocity profile u for y and κ at $\phi = 0.01, Sc = 0.22, Gm = 10,$ $Gr = 5, Sr = 15, R_\gamma = 10, Nr = 5, H = 10$ and $t = 0.4$	98
Figure 4.5:	Velocity profile u for y and Sr at $\phi = 0.01, \kappa = 0.4, Sc = 0.22,$	98

	$Gm = 10, Gr = 5, R_\gamma = 10, Nr = 5, H = 10$ and $t = 0.4$	
Figure 4.6:	Concentration profile C for y and Sr at $\phi = 0.01, \kappa = 0.4, Sc = 0.22,$	99
	$Gm = 10, Gr = 5, R_\gamma = 10, Nr = 5, H = 10$ and $t = 0.4$	
Figure 4.7:	Velocity profile u for y and H at $\phi = 0.01, \kappa = 0.4, Sc = 0.22,$	99
	$Gm = 10, Gr = 5, Sr = 15, R_\gamma = 10, Nr = 5$ and $t = 0.4$	
Figure 4.8:	Temperature profile θ for y and H at $\phi = 0.01, \kappa = 0.4, Sc = 0.22,$	100
	$Gm = 10, Gr = 5, Sr = 15, R_\gamma = 10, Nr = 5$ and $t = 0.4$	
Figure 4.9:	Velocity profile u for y and M at $Pr = 6.2, \kappa = 0.4, Sc = 0.22,$	100
	$Gm = 10, Gr = 5, Sr = 15, R_\gamma = 10, Nr = 5$ and $t = 0.4$	
Figure 5.1:	Physical sketch of the Problem	106
Figure 5.2:	H-Curve of $f''(0)$ for different values of h_f at $\phi = 0.03, M = 0.6,$	112
	$Nr = 0.6, Pr = 7.0, S = 0.9, Ec = 0.02, \delta = 0.02$ and $\lambda = 1.4.$	
Figure 5.3:	H-Curve of $\theta'(0)$ for different values of h_θ at $\phi = 0.03, M = 0.6,$	113
	$Nr = 0.6, Pr = 7.0, S = 0.9, Ec = 0.02, \delta = 0.02$ and $\lambda = 1.4.$	
Figure 5.4:	Velocity profile f for different values of η and M at $S = 0.9, Nr = 0.6,$	114
	$Pr = 7.0, \phi = 0.03, Ec = 0.02, \delta = 0.02$ and $\lambda = 1.4.$	
Figure 5.5:	Velocity profile f' for different values of η and M at $S = 0.9, Nr = 0.6,$	114
	$Pr = 7.0, \phi = 0.03, Ec = 0.02, \delta = 0.02$ and $\lambda = 1.4.$	
Figure 5.6:	Velocity profile f for different values of η and S at $M = 0.6, Nr = 0.6,$	115
	$Pr = 7.0, \phi = 0.03, Ec = 0.02, \delta = 0.02$ and $\lambda = 1.4.$	
Figure 5.7:	Velocity profile f' for different values of η and S at $M = 0.6, Nr = 0.6,$	115
	$Pr = 7.0, \phi = 0.03, Ec = 0.02, \delta = 0.02$ and $\lambda = 1.4.$	
Figure 5.8:	Velocity profile f for different values of η and ϕ at $M = 0.6,$	116
	$Nr = 0.6, Pr = 7.0, S = 0.9, Ec = 0.02, \delta = 0.02$ and $\lambda = 1.4.$	
Figure 5.9:	Velocity profile f' for different values of η and ϕ at $M = 0.6,$	116
	$Nr = 0.6, Pr = 7.0, S = 0.9, Ec = 0.02, \delta = 0.02$ and $\lambda = 1.4.$	
Figure 5.10:	Temperature profile θ for different values of η and M at $S = 0.9,$	117
	$Nr = 0.6, Pr = 7.0, \phi = 0.03, Ec = 0.02, \delta = 0.02$ and $\lambda = 1.4.$	
Figure 5.11:	Temperature profile θ for different values of η and S $M = 0.6,$	117
	$Nr = 0.6, Pr = 7.0, \phi = 0.03, Ec = 0.02, \delta = 0.02$ and $\lambda = 1.4.$	
Figure 5.12:	Temperature profile θ for different values of η and ϕ at $M = 0.6,$	118
	$Nr = 0.6, Pr = 7.0, S = 0.9, Ec = 0.02, \delta = 0.02$ and $\lambda = 1.4.$	
Figure 5.13:	Temperature profile θ for different values of η and δ at $S = 0.9,$	118
	$Nr = 0.6, M = 0.6, \phi = 0.03, Ec = 0.02, Pr = 7.0$ and $\lambda = 1.4.$	
Figure 5.14:	Temperature profile θ for different values of η and Ec at $S = 0.9,$	119

	$Nr = 0.6, M = 0.6, \phi = 0.03, \delta = 0.02, Pr = 7.0$ and $\lambda = 1.4$.	
Figure 5.15:	Temperature profile θ for different values of η and Pr at $S = 0.9$,	119
	$Nr = 0.6, M = 0.6, \phi = 0.03, Ec = 0.02, \delta = 0.02$ and $\lambda = 1.4$.	
Figure 5.16:	Effect of magnetic parameter M and ϕ on Skin friction coefficient at $Nr =$	120
	$1.8, Pr = 6.2, S = 0.9, Ec = 1.1, \delta = 0.1$ and $\lambda = 1.4$.	
Figure 5.17:	Effect of magnetic parameter M and ϕ on Nusselt Number at $Nr = 1.8$,	120
	$Pr = 6.2, S = 0.9, Ec = 1.1, \delta = 0.1$ and $\lambda = 1.4$.	
Figure 5.18:	Effect of Squeezing parameter S and ϕ on Skin friction coefficient at $Nr =$	121
	$1.8, Pr = 6.2, M = 0.6, Ec = 1.1, \delta = 0.1$ and $\lambda = 1.4$.	
Figure 5.19:	Effect of Squeezing parameter S and ϕ on Nusselt Number at $M = 0.6$,	121
	$Pr = 6.2, Nr = 1.8, Ec = 1.1, \delta = 0.1$ and $\lambda = 1.4$.	
Figure 6.1:	Physical sketch of the problem	124
Figure 6.2:	H-Curve of f'' for \hbar_f at $\phi = 0.02, M = 0.5, Nr = 1.0, Pr = 10.0$,	131
	$S = 0.3, Ec = 0.05, \delta = 0.15, \lambda = 1.2, Nb = 0.1, Nt = 0.1$ and $Sc = 0.3$.	
Figure 6.3:	H-Curve of θ' for \hbar_θ at $\phi = 0.02, M = 0.5, Nr = 1.0, Pr = 10.0$,	131
	$S = 0.3, Ec = 0.05, \delta = 0.15, \lambda = 1.2, Nb = 0.1, Nt = 0.1$ and $Sc = 0.3$.	
Figure 6.4:	H-Curve of C' for \hbar_c at $\phi = 0.02, M = 0.5, Nr = 1.0, Pr = 10.0$,	132
	$S = 0.3, Ec = 0.05, \delta = 0.15, \lambda = 1.2, Nb = 0.1, Nt = 0.1$ and $Sc = 0.3$.	
Figure 6.5:	Figure 6.5: Concentration profile C for η and S at $\phi = 0.02, M = 0.5$,	133
	$Nr = 1.0, Pr = 6.2, Ec = 0.05, \delta = 0.15, \lambda = 1.2, Nb = 0.1$,	
	$Nt = 0.1$ and $Sc = 0.3$.	
Figure 6.6:	Concentration profile C for η and ϕ at $S = 0.3, M = 0.5, Nr = 1.0$,	133
	$Pr = 6.2, Ec = 0.05, \delta = 0.15, \lambda = 1.2, Nb = 0.1, Nt = 0.1$ and	
	$Sc = 0.3$.	
Figure 6.7:	Concentration profile C for η and M at $S = 0.3, \phi = 0.02, Nr = 1.0$,	134
	$Pr = 6.2, Ec = 0.05, \delta = 0.15, \lambda = 1.2, Nb = 0.1, Nt = 0.1$ and	
	$Sc = 0.3$.	
Figure 6.8:	Concentration profile C for η and Sc at $S = 0.3, \phi = 0.02, Nr = 1.0$,	134
	$Pr = 6.2, Ec = 0.05, \delta = 0.15, \lambda = 1.2, Nb = 0.1, Nt = 0.1$ and	
	$M = 0.5$.	
Figure 6.9:	Concentration profile C for η and Nt at $S = 0.3, \phi = 0.02, Nr = 1.0$,	135
	$Pr = 6.2, Ec = 0.05, \delta = 0.15, \lambda = 1.2, Nb = 0.1, Sc = 0.3$ and $M = 0.5$.	
Figure 6.10:	Concentration profile C for η and Nb at $S = 0.3, \phi = 0.02$,	135
	$Nr = 1.0, Nt = 0.1, Ec = 0.05, \delta = 0.15, \lambda = 1.2, Pr = 6.2, Sc = 0.3$	
	and $M = 0.5$.	
Figure 6.11:	Concentration profile C for η and Ec at $S = 0.3, \phi = 0.02, Nb = 0.1$,	136

	$Nt = 0.1, \lambda = 1.2, Nr = 1.0, \delta = 0.15, Pr = 6.2, Sc = 0.3$ and $M = 0.5$.	
Figure 6.12:	Effect of magnetic parameter M and S on C_f at $\phi = 0.02, Nr = 1.0,$ $Pr = 6.2, Ec = 0.05, \delta = 0.15, \lambda = 1.2, Nb = 0.1, Nt = 0.1$ and $Sc = 0.3$.	136
Figure 6.13:	Effect of magnetic parameter M and S on Nu at $\phi = 0.02, Nr = 1.0,$ $Pr = 6.2, Ec = 0.05, \delta = 0.15, \lambda = 1.2, Nb = 0.1, Nt = 0.1$ and $Sc = 0.3$.	137
Figure 6.14:	Effect of nanoparticle volume fraction ϕ and Nr on Nu at $M = 0.5,$ $S = 0.3, Pr = 6.2, Ec = 0.05, \delta = 0.15, \lambda = 1.2, Nb = 0.1, Nt = 0.1$ and $Sc = 0.3$.	137
Figure 6.15:	Effect of Eckert number Ec and ϕ on Nu at $M = 0.5, Nr = 1.0, Pr = 6.2,$ $S = 0.3, \delta = 0.15, \lambda = 1.2, Nb = 0.1, Nt = 0.1$ and $Sc = 0.3$.	138
Figure 7.1:	Physical Sketch of the Problem	141
Figure 7.2:	H-Curve of $f''(0), g'(0), \theta'(0)$ for different values of $\hbar_f, \hbar_g, \hbar_\theta$ at $M = 1,$ $Kr = 1, Pr = 7.2, Ec = 0.01, \phi = 0.04, \kappa = 0.2, Nr = 0.1$ and $Re = 0.1$.	148
Figure 7.3:	Temperature Profile θ for different values of η and Re at $M = 1, Kr = 1,$ $Pr = 7.2, Ec = 0.01, \phi = 0.04, \kappa = 0.2$ and $Nr = 0.1$.	149
Figure 7.4:	Temperature Profile θ for different values of η and Nr at $M = 1, Kr = 1,$ $Pr = 7.2, Ec = 0.01, \phi = 0.04, \kappa = 0.2$ and $Re = 0.1$.	149
Figure 7.5:	Velocity profile f' for different values of η and Re at $M = 1, Kr = 1,$ $Pr = 7.2, Ec = 0.01, \phi = 0.04, \kappa = 0.2$ and $Nr = 0.1$.	150
Figure 7.6:	Velocity profile g for different values of η and Re at $M = 1, Kr = 1,$ $Pr = 7.2, Ec = 0.01, \phi = 0.04, \kappa = 0.2$ and $Nr = 0.1$.	150
Figure 7.7:	Velocity profile g for different values of η and M at $Re = 0.1, Kr = 1,$ $Pr = 7.2, Ec = 0.01, \phi = 0.04, \kappa = 0.2$ and $Nr = 0.1$.	151
Figure 7.8:	Velocity profile g for different values of η and ϕ at $Re = 0.1, Kr = 1,$ $Pr = 7.2, Ec = 0.01, M = 1, \kappa = 0.2$ and $Nr = 0.1$.	151
Figure 7.9:	Velocity profile f for different values of η and κ at $Re = 0.1, Kr = 1,$ $Pr = 7.2, Ec = 0.01, M = 1, \phi = 0.04$ and $Nr = 0.1$.	152
Figure 7.10:	Velocity profile f' for different values of η and κ at $Re = 0.1, Kr = 1,$ $Pr = 7.2, Ec = 0.01, M = 1, \phi = 0.04$ and $Nr = 0.1$.	152
Figure 7.11:	Velocity profile g for different values of η and κ at $Re = 0.1, Kr = 1,$ $Pr = 7.2, Ec = 0.01, M = 1, \phi = 0.04$ and $Nr = 0.1$.	153
Figure 7.12:	Velocity profile f for different values of η and Kr at $Re = 0.1, \kappa = 0.2,$	153

	$Pr = 7.2, Ec = 0.01, M = 1, \phi = 0.04$ and $Nr = 0.1$.	
Figure 7.13:	Velocity profile f' for different values of η and Kr at $Re = 0.1, \kappa = 0.2,$ $Pr = 7.2, Ec = 0.01, M = 1, \phi = 0.04$ and $Nr = 0.1$.	154
Figure 7.14:	Velocity profile g for different values of η and Kr at $Re = 0.1, \kappa = 0.2,$ $Pr = 7.2, Ec = 0.01, M = 1, \phi = 0.04$ and $Nr = 0.1$.	154
Figure 7.15:	Effect of magnetic parameter M and Re on Skin friction coefficient at $Kr = 1, \kappa = 0.2, Pr = 7.2, Ec = 0.01, M = 1, \phi = 0.04$ and $Nr = 0.1$.	155
Figure 7.16:	Effect of magnetic parameter M and Kr on Skin friction coefficient at $\phi = 0.04, \kappa = 0.2, Pr = 7.2, Ec = 0.01, M = 1, Re = 0.1$ and $Nr = 0.1$.	155
Figure 7.17:	Effect of magnetic parameter M and Re on Nusselt number at $\phi = 0.04,$ $\kappa = 0.2, Pr = 7.2, Ec = 0.01, M = 1, Kr = 1$ and $Nr = 0.1$.	156
Figure 7.18:	Effect of magnetic parameter M and Kr on Nusselt number at $Re = 0.1,$ $\kappa = 0.2, Pr = 7.2, Ec = 0.01, M = 1, \phi = 0.04$ and $Nr = 0.1$.	156
Figure 8.1:	Physical Sketch of the Problem	161
Figure 8.2:	H-Curve of $f''(0)$ for h_f at $\kappa = 0.2, \phi = 0.04, M = 0.5, Kr = 0.5,$ $Pr = 6.2, Re = 0.5, Nt = 0.5, Nb = 0.5, Sc = 0.5$ and $Nr = 2.0$.	169
Figure 8.3:	H-Curve of $g'(0)$ for h_g at $\kappa = 0.2, \phi = 0.04, M = 0.5, Kr = 0.5,$ $Pr = 6.2, Re = 0.5, Nt = 0.5, Nb = 0.5, Sc = 0.5$ and $Nr = 2.0$.	170
Figure 8.4:	H-Curve of $\theta'(0)$ for h_θ at $\kappa = 0.2, \phi = 0.04, M = 0.5, Kr = 0.5,$ $Pr = 6.2, Re = 0.5, Nt = 0.5, Nb = 0.5, Sc = 0.5$ and $Nr = 2.0$.	170
Figure 8.5:	H-Curve of $C'(0)$ for h_c at $\kappa = 0.2, \phi = 0.04, M = 0.5, Kr = 0.5,$ $Pr = 6.2, Re = 0.5, Nt = 0.5, Nb = 0.5, Sc = 0.5$ and $Nr = 2.0$.	171
Figure 8.6:	Concentration profile C for η and Nb at $\phi = 0.04, M = 0.5, Pr = 6.2,$ $\kappa = 0.2, Re = 0.5, Nt = 0.5, Kr = 0.5, Sc = 0.5$ and $Nr = 2.0$.	172
Figure 8.7:	Concentration profile C for η and Nr at $\phi = 0.04, M = 0.5, Pr = 6.2,$ $\kappa = 0.2, Re = 0.5, Nb = 0.5, Kr = 0.5, Sc = 0.5$ and $Nt = 0.5$.	172
Figure 8.8:	Concentration profile for η and Nt at $\phi = 0.04, M = 0.5, Pr = 10,$ $\kappa = 0.2, Re = 0.5, Nb = 0.5, Kr = 0.5, Sc = 0.5$ and $Nr = 2.0$.	173
Figure 8.9:	Effect of M and κ on C_f at $\phi = 0.04, Nt = 0.5, Pr = 6.2, Re = 0.5,$ $Nb = 0.5, Kr = 0.5, Sc = 0.5$ and $Nr = 2.0$.	173
Figure 8.10:	Effect of M and κ on Nu at $Kr = 0.5, Nt = 0.5, Pr = 6.2, \phi = 0.04,$ $Nb = 0.5, Re = 0.5, Sc = 0.5$ and $Nr = 2.0$.	174
Figure 8.11:	Effect of M and Pr on Nu at $\kappa = 0.2, Nr = 2.0, \phi = 0.04, Nt = 0.5,$ $Kr = 0.5, Re = 0.5, Sc = 0.5$ and $Nb = 0.5$.	174
Figure 8.12:	Effect of M and Sc on Nu at $\kappa = 0.2, Nr = 2.0, \phi = 0.04, Nt = 0.5,$	175

$Kr = 0.5, Pr = 6.2, Re = 0.5$ and $Nb = 0.5$.

- Figure 8.13:** Effect of M and Kr on Sh at $\kappa = 0.2, Nr = 2.0, \phi = 0.04, Nt = 0.5,$ 175
 $Sc = 0.5, Pr = 6.2, Re = 0.5$ and $Nb = 0.5$.
- Figure 8.14:** Effect of M and Nr on Sh at $\kappa = 0.2, Nb = 0.5, \phi = 0.04, Nt = 0.5,$ 176
 $Sc = 0.5, Pr = 6.2, Re = 0.5$ and $Kr = 0.5$.
- Figure 8.15:** Effect of M and Nt on Sh at $\kappa = 0.2, Nr = 2.0, \phi = 0.04, Nb = 0.5,$ 176
 $Sc = 0.5, Pr = 6.2, Re = 0.5$ and $Kr = 0.5$.
- Figure 8.16:** Effect of M and Pr on Sh at $\kappa = 0.2, Nr = 2.0, Nt = 0.5, Nb = 0.5,$ 177
 $Sc = 0.5, \phi = 0.04, Re = 0.5$ and $Kr = 0.5$.
- Figure 8.17:** Effect of M and Re on Sh at $\kappa = 0.2, Nr = 2.0, Nt = 0.5, Nb = 0.5,$ 177
 $Sc = 0.5, \phi = 0.04, Pr = 6.2$ and $Kr = 0.5$.