http://doi.org/10.1007/s00231-006-0132-8
[29] Postelnicu A. (2007) Influence of chemical reaction on heat and mass transfer by natural convection from vertical surfaces in porous media considering Soret and Dufour effects. Heat Mass Transfer 43(6): 595-602. http://doi.org/10.1007/s00231-006-0132-8
[30] Alam MS, Rahman MM. (2006). Dufour and Soret effects on mixed convection flow past a vertical porous flat plate with variable suction. Nonlinear Analysis: Modelling and Control 11(1): 3-12. http://doi.org/10.1109/HMWC.2014.7000242
[31] Murthy PVSN, Partha MK, Raja Sekhar GP. (2006). Soret and Dufour effects in a non-Darcy porous medium. Journal of Heat Transfer 128(6): 605-610. http://doi.org/10.1115/1.2188512
[32] Rashidi MM, Hayat T, Erfani E, Mohimanian Pour SA, Awatif AH. (2011). Simultaneous effects of partial slip and thermal-diffusion and diffusion-thermo on steady MHD convective flow due to a rotating disk. Communications in Nonlinear Science and Numerical Simulation 16(11): 4303–4317. http://doi.org/10.1016/j.cnsns.2011.03.015
[33] Mishra SR, Dash GC, Acharya M. (2013). Free convective flow of visco-elastic fluid in a vertical channel with Dufour effect. World Applied Sciences Journal 28: 1275-1280.
[34] Baag S, Mishra SR, Dash GC, Acharya MR. (2014). Numerical investigation on MHD microploar fluid flow towards a stagnation point on a vertical surface with heat source and chemical reaction. Journal of King Saud University-Engineering Sciences 3(1). http://doi.org/10.1016/j.jksues.2014.06.002
[35] Bhattacharyya K. (2011). Dual solutions in boundary stagnation-point flow and mass transfer with chemical reaction past a stretching/shrinking sheet. International Communications in Heat and Mass Transfer 38(7): 917-922. http://doi.org/10.1016/j.icheatmasstransfer.2011.04.020

NOMENCLATURE

C	fluid Concentration
D	coefficient of the mass diffusivity
Du	Dufour number
Pr	Prandtl number
Sr	Soret number
g	acceleration due to gravity
M	magnetic parameter
Γ	material parameter
Cp	specific molecular diffusivity
Kp	Permeability parameter
Sc	Schmidt number

Greek symbols

T	fluid temperature
$\theta(\eta)$	dimensionless temperature
T_∞	fluid temperature at infinity
μ	dynamic viscosity
Gc	Grashof number for mass transfer
δ	solutal buoyancy parameter
B_0	magnetic flux density
α	thermal diffusivity
Sh	Sherwood number
σ	Electrical
κ	thermal conductivity
λ	thermal buoyancy or mixed convection parameter
Nu	Nusselt number
ρ	density of the fluid
Kc	chemical reaction parameter
ν	kinematic viscosity
Gr	Grashof number for heat transfer
η	similarity variable
C_∞	species concentration at infinity
β_T	thermal expansion coefficient
k_c^*	reaction rate of the solute
β_c	concentration expansion coefficient
N	angular Velocity
γ'	spin gradient viscosity
u, v	velocity components along x- and y-direction
$\varphi(\eta)$	non-dimensional concentration parameter
j	micro-inertia density
k	vortex viscosity or microrotation viscosity
C_w	stretching sheet concentration
Ec	Eckert number
T_w	stretching sheet temperature
x, y	coordinates