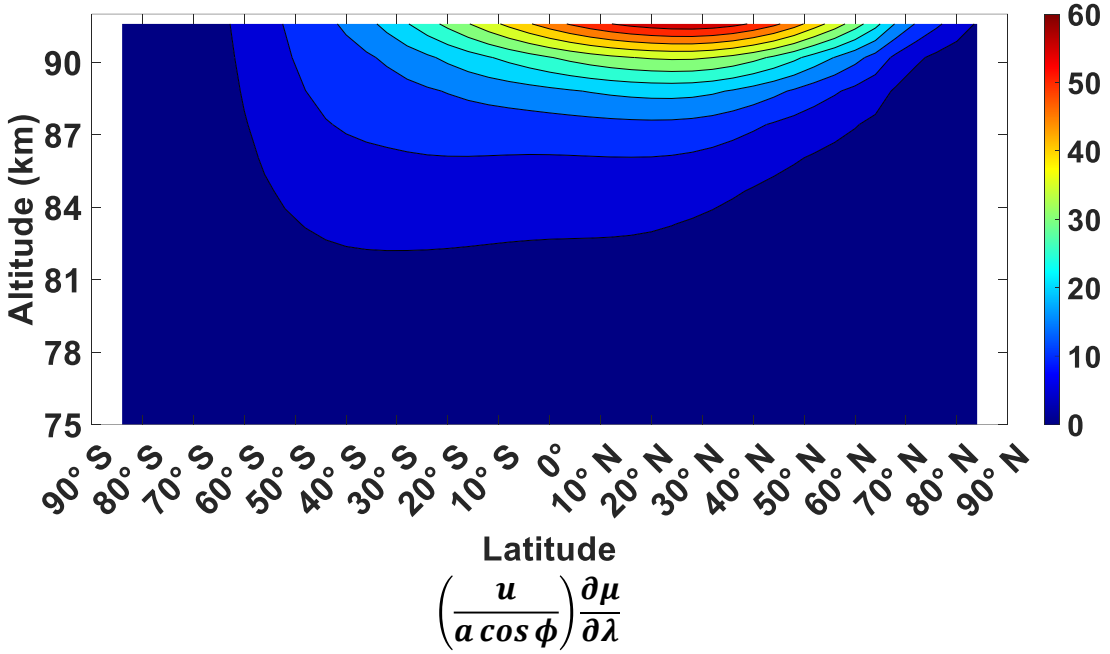
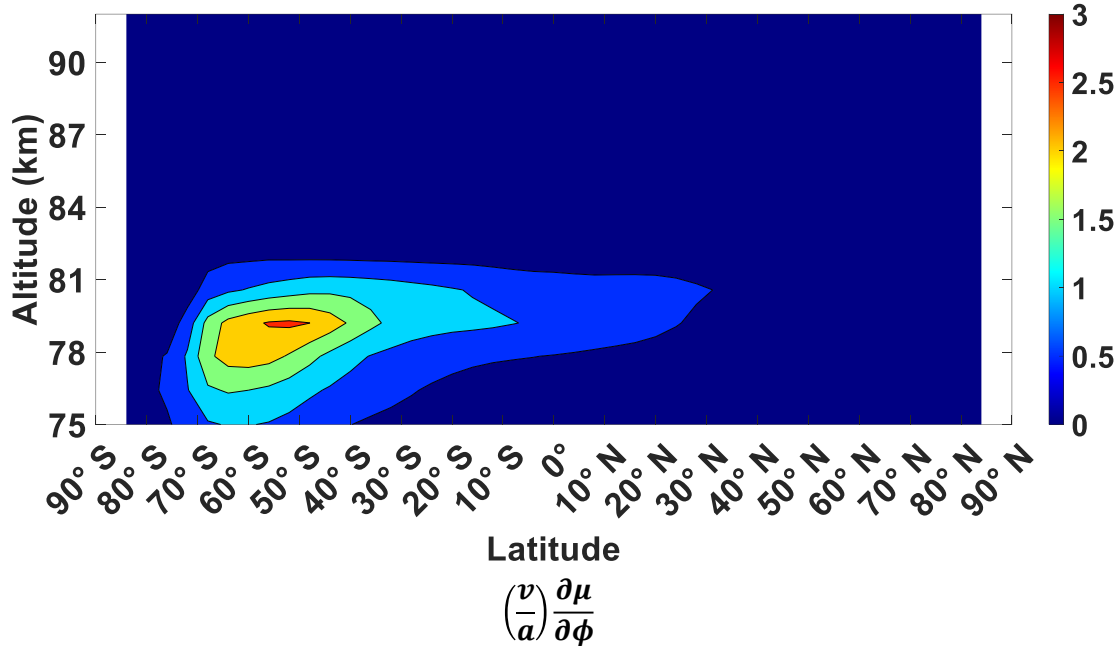
(a) DW1 amplitude of chemical production term in June (ppm/day)



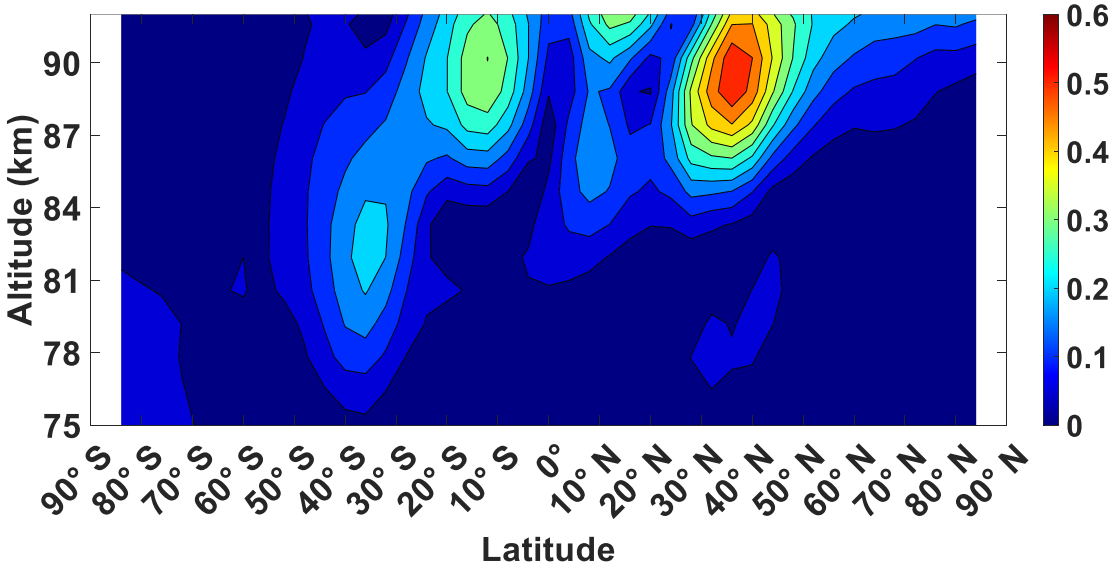
$$\left(\frac{u}{a\cos\phi}\right)\frac{\partial\mu}{\partial\lambda}$$

(b) DW1 amplitude of chemical loss term in June (ppm/day)



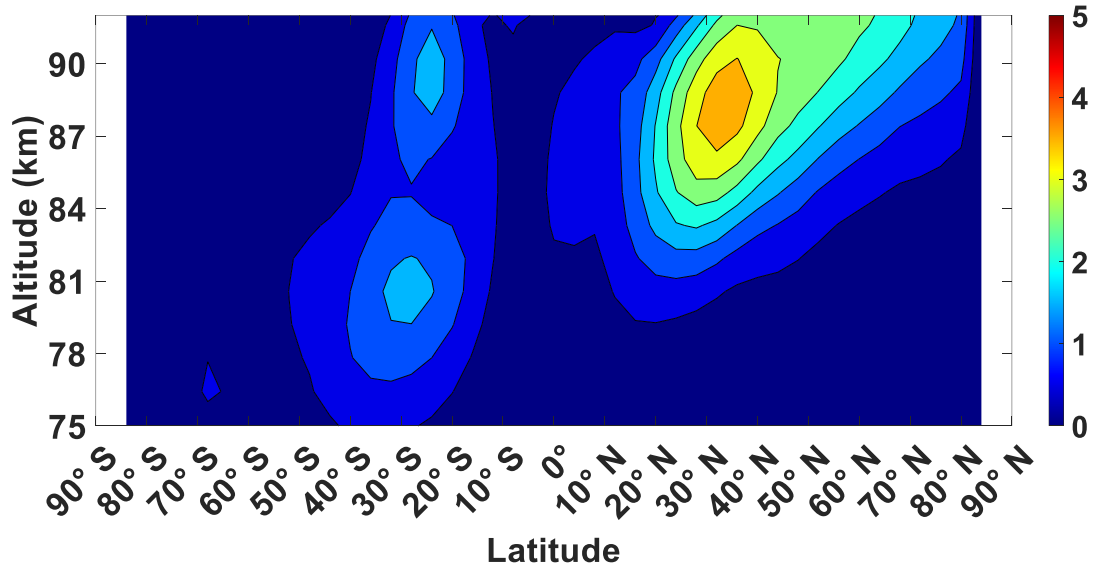
$$\left(\frac{v}{a}\right)\frac{\partial\mu}{\partial\phi}$$

(c) DW1 amplitude of zonal advection term in June (ppm/day)



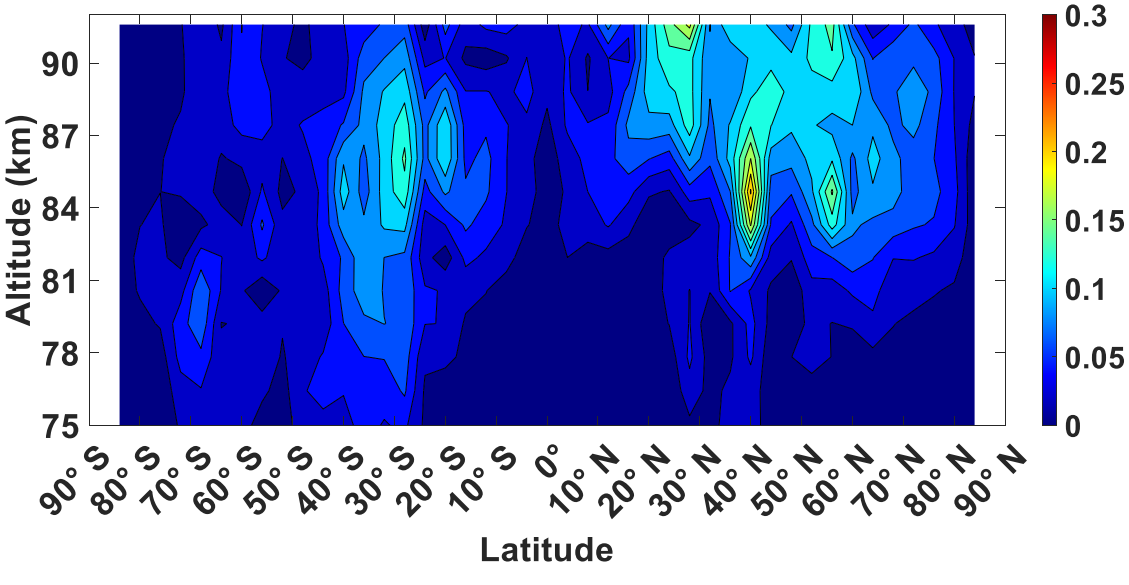
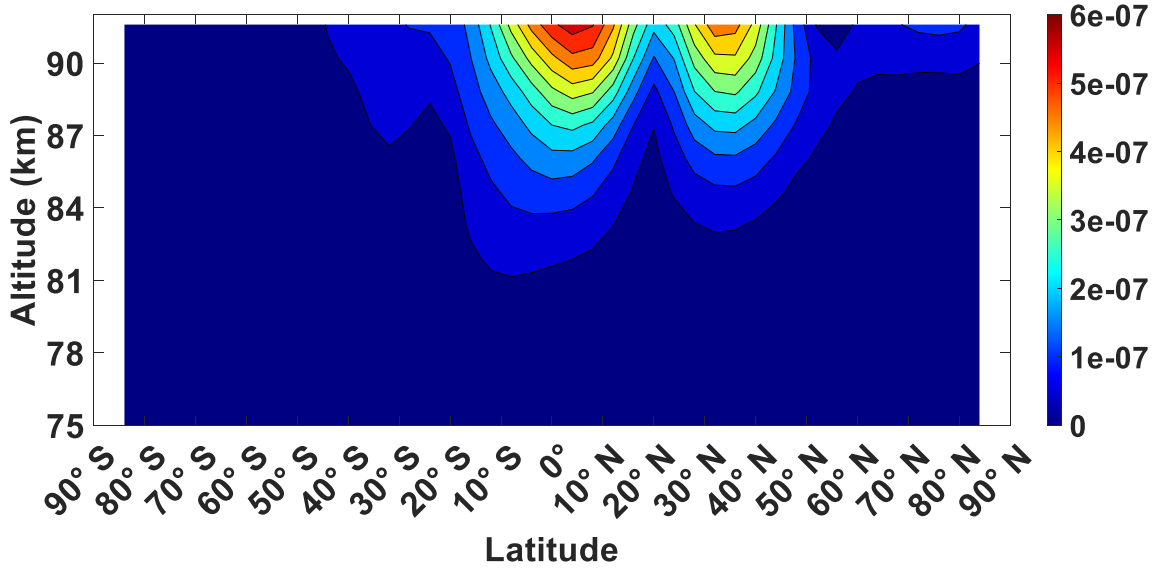
$$\frac{1}{\rho_0}\frac{\partial}{\partial z}\left(\rho_0 K_{zz}\frac{\partial\mu}{\partial z}\right)$$

(d) DW1 amplitude of meridional advection term in June (ppm/day)



$$-\frac{1}{\rho_0}\frac{\partial}{\partial z}\left(\rho_0 D_\mu\frac{\partial\mu}{\partial z}\right)+\frac{1}{\rho_0}\frac{\partial}{\partial z}\left(\rho_0\mu w_D\right)$$

(e) DW1 amplitude of eddy diffusion term in June (ppm/day)



(f) DW1 amplitude of molecular diffusion term in June (ppm/day)