

$$\frac{\partial e}{\partial t} + \rho c_k \frac{\partial e}{\partial x_k} = -p \frac{\partial c_k}{\partial x_k} + \frac{\partial}{\partial x_j} \left( \kappa \frac{\partial T}{\partial x_j} \right) - \frac{2}{3} \mu \left( \frac{\partial c_k}{\partial x_k} \right)^2 + \mu \left( \frac{\partial c_i}{\partial x_j} + \frac{\partial c_j}{\partial x_i} \right) \frac{\partial c_j}{\partial x_i}$$