$$\int_{V} (\partial \rho c_{\rho} T) \, dV - \oint_{\Omega} \lambda \vec{\nabla} T d\vec{\Omega} = 0, \tag{1}$$

$$\rho_{i,j}c_{\rho_{i,j}}\frac{T_{i,j}^{n+1} - T_{i,j}^{n}}{\Delta t}V_{i,j} + \lambda_{i,j-}\frac{T_{i,j}^{n+1} - T_{i,j-}^{n}}{L_{i,j-}}\Omega_{i,j-} + \lambda_{i-,j}\frac{T_{i,j}^{n+1} - T_{i-,j}^{n}}{L_{i-,j}}\Omega_{i-,j} - \lambda_{i+,j}\frac{T_{i+,j}^{n+1} - T_{i,j}^{n}}{L_{i+,j}}\Omega_{i+,j} - \lambda_{i,j+}\frac{T_{i,j+}^{n+1} - T_{i,j+}^{n}}{L_{i,j+}}\Omega_{i,j+} = 0,$$
(2)

$$A = -\frac{\lambda_{i,j-}}{L_{i,j-}} \Omega_{i,j-} \tag{3}$$

$$B = -\frac{\lambda_{i-,j}}{L_{i-,j}} \Omega_{i-,j} \tag{4}$$

$$C = \frac{\rho_{i,j}c_{\rho_{i,j}}V_{i,j}}{\Delta t} + \frac{\lambda_{i,j-}}{L_{i,j-}}\Omega_{i,j-} + \frac{\lambda_{i-,j}}{L_{i-,j}}\Omega_{i-,j} + \frac{\lambda_{i+,j}}{L_{i+,j}}\Omega_{i+,j} + \frac{\lambda_{i,j+}}{L_{i,j+}}\Omega_{i,j+}$$
(5)

$$D = -\frac{\lambda_{i+,j}}{L_{i+,j}} \Omega_{i+,j} \tag{6}$$

$$E = -\frac{\lambda_{i,j+}}{L_{i,j+}} \Omega_{i,j+} \tag{7}$$

$$F = -\frac{\rho_{i,j}c_{\rho_{i,j}}V_{i,j}}{\Delta t} \tag{8}$$

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