$$\rho C_p \frac{dT}{dt} = \nabla \cdot (\lambda \, \nabla T) + Q \qquad \frac{dc_t}{dt} = k c_m (n - c_t) - p \, c_t$$

$$c_{m+1} \qquad c_m = S(T) \sqrt{P}$$

 $\frac{dc_{\rm m}}{dt} = \nabla \cdot (D(T)\nabla c_{\rm m}) + \Gamma - \sum \frac{dc_t}{dt}$

$$\frac{\rho c_p}{dt} = v \cdot (\lambda VT) + Q \qquad \frac{dc_t}{dt} = kc_m (n - c_t) - p c_t$$

$$\frac{c_m}{S^-} = \frac{c_{m^+}}{S^+} \qquad -\lambda \nabla T \cdot \mathbf{n} = h(T - T_{\text{ext}}) \qquad c_m = S(T)\sqrt{P}$$

$$u = \sum_{i=0}^{N} u_i \phi_i(x, y, z) \qquad c_{\text{max}} = \frac{\varphi_{\text{imp}} R_p}{D} + \sqrt{\frac{\varphi_{\text{imp}}}{K_r}}$$

$$\frac{c_{t}}{dt}$$

- $-D(T)\nabla c_{\mathbf{m}} \cdot \boldsymbol{n} = K_r c_{\mathbf{m}}^2$

 $c_{\rm m} = S(T)\sqrt{P}$