$$C_{2,i+1} = C_{2,i} + rac{C_{1,i} - C_{2,i}}{\left(1 - lpha_1
ight) lpha_2 au} \; \Delta t$$

$$\nu C_1 = \nu C_2 + (1 - \alpha_1) \alpha_2 V \frac{\mathrm{d}C_2}{\mathrm{d}t} \Longrightarrow$$

$$C_1 = \nu C_2 + (1 - \alpha_1) \alpha_2 V \frac{dC_2}{dt} \Longrightarrow$$

$$C_1 = C_2 + (1 - \alpha_1) \alpha_2 \tau \frac{dC_2}{dt} \Longrightarrow$$

$$dC_2 \qquad C_1 - C_2$$

$$\Rightarrow C_1 = C_2 + (1 - \alpha_1) \alpha_2 \tau \frac{dC_2}{dt} \implies$$

$$\Rightarrow \frac{dC_2}{dt} = \frac{C_1 - C_2}{(1 - \alpha_1) \alpha_2 \tau} \implies$$

$$\Rightarrow C_1 = C_2 + (1 - \alpha_1) \alpha_2 \tau \frac{dC_2}{dt} \Rightarrow$$

$$\Rightarrow \frac{dC_2}{dt} = \frac{C_1 - C_2}{(1 - \alpha_1) \alpha_2 \tau} \Rightarrow$$

$$\Rightarrow \frac{\Delta C_2}{\Delta t} = \frac{C_{2,i+1} - C_{2,i}}{\Delta t} = \frac{C_{1,i} - C_{2,i}}{(1 - \alpha_1) \alpha_2 \tau} \Rightarrow$$

 $\implies C_{2,i+1} = C_{2,i} + \frac{C_{1,i} - C_{2,i}}{(1 - \alpha_1) \alpha_2 \tau} \Delta t$

$$\Rightarrow C_1 = C_2 + (1 - \alpha_1) \alpha_2 \tau \frac{dC_2}{dt} \implies$$

$$\Rightarrow \frac{dC_2}{dt} = \frac{C_1 - C_2}{(1 - \alpha_1) \alpha_2 \tau} \implies$$