

Energiebilanz bei der Speisewasser-Vorwärmung:

$$Q_{ab} + Q_{zu} = 0$$

$$Q_{ab} = H_{2a} - H_{2a} = \alpha m (h_{3a} - h_{2a})$$

$$Q_{zu} = H_{4a} - H_4 = (1-\alpha) m (h_{4a} - h_4)$$

$$\alpha (h_{3a} - h_{2a}) + (1-\alpha) (h_{4a} - h_4) = 0$$

$$\alpha = \frac{h_{4a} - h_4}{h_{3a} - h_{2a} + h_{4a} - h_4}$$