

Cv-7

$$\begin{array}{l} 5, \quad t_1 = 0^\circ\text{C} \quad = 273 \text{ K} \\ \quad \quad t_2 = 1200^\circ\text{C} \quad = 1473 \text{ K} \\ \quad \quad \alpha = 0,04 \text{ K}^{-1} \end{array}$$

$$\begin{array}{l} I = \text{konst} \\ U_2 = X U_1 \end{array}$$

$$I = \frac{U}{R} \rightarrow \frac{U_1}{R_1} = \frac{U_2}{R_2}$$

$$X = \frac{U_2}{U_1} = \frac{R_2}{R_1}$$

$$R_2 = R_1 \cdot (1 + \alpha \Delta t)$$

$$X = \frac{U_2}{U_1} = \frac{R_1 (1 + \alpha \Delta t)}{R_1} = 1 + \alpha \Delta t = 1 + 0,04 \cdot (1473 - 273) = \underline{\underline{49}}$$

$$\underline{\underline{U_2 = 49 U_1}}$$

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