

$$i_{AK} = I_0 e^{\frac{V_{AK}}{2 \times 9.1 \times 10^{-31} \times 272727}} = I_0 e^{18,33 V_{AK}}$$

$$\ln [i_{AK}] = \ln I_0 + 18,33 V_{AK}$$

$$e^{\log [i_{AK}]} = \ln I_0 + 18,33 V_{AK}$$

$$[{}^{10}\log e] e^{\log (i_{AK})} = [\log e] [\ln I_0] + [\log e] 18,33 V_{AK}$$

$$' \log i_{AK} = K + 7,96 V_{AK}$$

$$\text{whn fnk } T = 300 K (27^\circ C)$$

$$i_{AK} = \frac{V_i}{R}$$

$$V_{AK} = V_0$$

$$\log \frac{V_i}{R} = K + 7,96 V_0$$

$$V_0 = \frac{K}{7,96} - \log \frac{V_i}{R}$$

