Karta wzorów

$$pV = nRT$$

$$\left[p + a\left(\frac{n}{V}\right)^2\right](V - bn) = nRT$$

$2\,\pi\,r\,\sigma = \pi\,r^2\,h\,d\,g$

$$\frac{\eta_1}{\eta_2} = \frac{t_1 \times d_1}{t_2 \times d_2}$$

$P = V\,\sigma^{\frac{1}{4}}$

$W_{obj} = -\,p_{prac}\,\Delta V$

$$\mathbf{W_{obj} = -nRTln\frac{V_2}{V_1}}$$

$\Delta U = Q + W$

$$C_p = \frac{\Delta H}{\Delta T}$$

$$C_p = n \cdot C_{p,m}$$

$$\Delta S = nRln\frac{V_2}{V_1}$$

$$W_{obj} = \frac{p_2V_2 - p_1V_1}{k - 1}$$

$$dS = \frac{Q_{odwr}}{T}$$

$$\Delta S_{p.t.} = \frac{\Delta H_{p.f.}}{T_{p.f.}}$$

$$\Delta H_r^o = \sum \Delta H_{tw,prod}^o - \sum \Delta H_{tw,substr}^o$$

$$\Delta S_r^o = \sum \Delta HS_{tw,prod}^o - \sum \Delta S_{tw,substr}^o$$

$$\Delta G_r^o = \sum \Delta G_{tw,prod}^o - \sum \Delta G_{tw,substr}^o$$

$\Delta G = \Delta H - T\Delta S$

$W = U\,I\,t$

$$v = \frac{S}{t} \qquad m = \frac{v}{E}$$

$$\frac{dp}{dT} = \frac{\Delta H_{pf}}{T\Delta V} \qquad p_2 - p_1 = \frac{\Delta H_{topn}}{\Delta V}\ln\frac{T_2}{T_1} \qquad lnk = lnA - \frac{E_a}{RT}$$

$$\ln\frac{p_2}{p_1} = \frac{\Delta H_{p.f.}}{R}\left(\frac{T_2 - T_1}{T_1\,T_2}\right)$$

$$\Delta G = nRTln\frac{p_2}{p_1}$$

$$\frac{p^0_{H_2O}}{p^0_B} = \frac{m_{H_2O} \cdot M_B}{m_B \cdot M_{H_2O}}$$

$$p = p_a + p_b$$

$$p_i = p_i^0 X_i$$

$$p_A = X_A^p p$$

$$p_A = X_A H$$

$$\Delta S = -R\Sigma n_i \ln X_i$$

$$p_i = p \cdot X_i$$

$$ln\frac{K_2}{K_1} = \frac{\Delta H_r}{R}\left(\frac{T_2 - T_1}{T_1 T_2}\right)$$

$$\Delta T_w = \frac{RT^2}{1000\,L}\,\frac{1000\,m_s}{M_s m_{rozp}}$$

$$\pi = c \cdot R \cdot T$$

$$\frac{\Delta p}{p_A^0} = \frac{m_s M_e}{M_s m_e}$$

$$\Delta p = p_{rozp}^0 X_s$$

$$K = \frac{\alpha^2 C}{1 - \alpha}$$

$$\mathrm{pH} = \mathrm{pK_a} - \log\frac{[1-\alpha]}{[\alpha]}$$

$$K = \alpha^2 C$$

$$M * D\left(1 - \bar{V}\,\rho_o\right) = RTs$$

$$\omega = \frac{2\pi}{t}$$

$$\bar{x} = \sqrt{2Dt}$$

$$D = \frac{RT}{6\,\pi\,\mathrm{h} N_A r}$$

$$\xi * \varepsilon = \mu * k\pi\eta$$

$$\Delta x = \sqrt{\frac{RT}{N_A}\,\frac{t}{3\,\pi\,\mathrm{hr}}}$$

$$a = \omega^2 x$$

$$[\eta] = K\,M^{\alpha}$$

$$v = \frac{2r^2(d-d_0)\omega^2 x}{9\eta_0} \qquad s = \frac{v}{\omega^2 x}$$

$$\Lambda = \frac{\kappa}{c}$$

$$k = \frac{R}{F}$$

$$\kappa = \frac{1}{\rho}$$

$$m = kq$$

$$\mathrm{E} = \mathrm{E}^0 + \frac{RT}{nF}\ln c$$

$$t_{0.5} = \frac{Ao}{2k}$$

$$[\mathrm{A}] = [\mathrm{A_o}] - \mathrm{kt}$$

$$t_{0.5} = \frac{\ln 2}{k}$$

$$\Delta \mathrm{G}^\circ = -\mathrm{RTln}K$$

$$\mathbf{t_{0,1}} = \frac{\mathbf{0{,}1054}}{\mathbf{k}}$$

$$\ln[\mathrm{A}] = \ln[\mathrm{A_o}] - \mathrm{kt}$$

$$\Delta \mathrm{G}^\circ = -n\mathrm{F}E$$

$$\mathbf{t_{0,1}} = \frac{\mathbf{[A_0]}}{\mathbf{10k}}$$