Formúlublað

$$E_{\text{kin}} = \frac{1}{2}mv^2 \qquad \text{(Hreyfiorka)}$$

$$d = \frac{m}{V}$$

$$PV = nRT$$

$$v_{\text{rms}} = \sqrt{\frac{3RT}{m_{\text{mól}}}}$$

$$\frac{v_{\text{rms}_1}}{v_{\text{rms}_2}} = \sqrt{\frac{m_{\text{mól}}(2)}{m_{\text{mól}}(1)}}$$

$$\Delta E = q + w$$

$$w = -P\Delta V$$

$$\Delta H = \Delta E + P\Delta V$$

$$C = ms$$

$$q = ms\Delta T$$

$$c = \lambda\nu$$

$$E = h\nu$$

$$E = mc^2$$

$$E = -\text{R}_\text{H}\left(\frac{1}{n^2}\right)$$

$$\Delta E = \text{R}_\text{H}\left(\frac{1}{n_i^2} - \frac{1}{n_f^2}\right)$$

$$\lambda = \frac{h}{mu}$$

$$\Delta\text{H}^\circ = \sum \text{BE(Hvarfefni)} - \sum \text{BE(Myndefni)}$$

$$\ln\frac{P_1}{P_2} = \frac{\Delta\text{H}^\circ_{\text{vap}}}{R}\left(\frac{T_1 - T_2}{T_1T_2}\right)$$

$$2d\sin\theta = n\lambda$$

$$a_{\text{scc}} = 2r$$

$$a_{\text{bcc}} = \frac{4r}{\sqrt{3}}$$

$$a_{\text{fcc}} = \sqrt{8}r$$

$$c = kP$$

$$P_\gamma = \chi_\text{A}P_\text{A}^\circ + \chi_\text{B}P_\text{B}^\circ$$

$$\Delta P = \chi_2 P_1^\circ$$

$$\Delta T_b = ik_bm$$

$$\Delta T_f = ik_fm$$

$$\pi = iMRT$$

$$t_{1/2} = \frac{[A]_0}{2k} \qquad \text{(0. stigs hvarf)}$$

$$t_{1/2} = \frac{0,693}{k} \qquad \text{(1. stigs hvarf)}$$

$$t_{1/2} = \frac{1}{k\,[A]_0} \qquad \text{(2. stigs hvarf)}$$

$$\ln\frac{k_1}{k_2} = \frac{E_a}{R}\left(\frac{T_1 - T_2}{T_1T_2}\right)$$

$$k = Ae^{-E_a/RT}$$

$$\ln\frac{[A]_t}{[A]_0} = -kt \qquad \text{(1. stigs hvarf)}$$

$$\frac{1}{[A]_t} = kt + \frac{1}{[A]_0} \qquad \text{(2. stigs hvarf)}$$

$$K_P = K\,(RT)^{\Delta n}$$

$$\ln\left(\frac{K_2}{K_1}\right) = -\frac{\Delta\text{H}^\circ}{R}\left(\frac{1}{T_2} - \frac{1}{T_1}\right)$$

$$\text{pH} = -\log\left[\text{H}^+\right]$$

$$\text{pOH} = -\log\left[\text{OH}^-\right]$$

$$s = k\ln W$$

$$\text{pH} + \text{pOH} = 14$$

$$\text{pH} = \text{pK}_a + \log\frac{[\text{A}^-]}{[\text{HA}]}$$

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

$$\Delta G^\circ = -RT\ln K$$

$$\Delta G = \Delta G^\circ + RT\ln Q$$

$$\Delta G^\circ = -nFE^\circ_{\text{ker}}$$

$$E^\circ_{\text{ker}} = E^\circ_{\text{katóða}} - E^\circ_{\text{anóða}}$$

$$C = As$$

$$E^\circ_{\text{ker}} = \frac{RT}{nF}\ln K$$

$$E_{\text{ker}} = E^\circ_{\text{ker}} - \frac{RT}{nF}\ln Q$$

$$ax^2 + bx + c = 0 \qquad \Rightarrow \qquad x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$