

$$v_p = \frac{s}{t} \quad a_p = \frac{\Delta v}{\Delta t}$$

$$v = v_0 \pm a \cdot t \quad s = v_0 \cdot t \pm \frac{1}{2} a \cdot t^2$$

$$F = m \cdot a \quad \sum \vec{F} = m \cdot \vec{a} \quad F = \frac{\Delta p}{\Delta t} \quad p = m \cdot v$$

$$F_t = f \cdot F_n \quad \text{vodorovná podložka} \quad F_t = f \cdot m \cdot g$$

$$W = F \cdot s \quad P = \frac{W}{t}$$

$$E = E_k + E_p \quad E_k = \frac{1}{2} m v^2 \quad E_p = m \cdot g \cdot h$$

$$p = \frac{F}{S} \quad p_h = h \cdot \rho \cdot g \quad F_{tlaková} = S \cdot h \cdot \rho \cdot g$$

$$G = m \cdot g = V_t \cdot \rho_t \cdot g \quad F_{vztlaková} = V_t \cdot \rho_t \cdot g$$

$$G' = G - F_{vz} \quad G = F_{vz}$$

$$Q_v = \frac{V}{t} = S \cdot v \quad Q_m = \frac{m}{t} = S \cdot v \cdot \rho$$

$$S_1 \cdot v_1 = S_2 \cdot v_2 \quad \frac{1}{2} \rho v_1^2 + p_1 + \rho g h_1 = \frac{1}{2} \rho v_2^2 + p_2 + \rho g h_2$$

$$\sigma_n = \frac{F}{S} \quad \sigma_n = E \cdot \varepsilon \quad \sigma_n = \frac{\Delta l}{l_0}$$

$$p \cdot V = N \cdot k \cdot T \quad p \cdot V = n \cdot R \cdot T \quad p \cdot V = \frac{m}{M} R \cdot T$$

$$\frac{p_1 \cdot V_1}{T_1} = \frac{p_2 \cdot V_2}{T_2} \quad T = (\{t\} + 273,15) \text{ K} \quad M = \{M_r\} \cdot 10^{-3}$$

$$\rho = \frac{m}{V} \quad n = \frac{m}{M} \quad N_V = \frac{N}{V}$$

$$Q = m \cdot c \cdot \Delta t \quad \sum Q = 0 \quad L_t = m \cdot l_t$$

$$\Delta U = W + Q \quad W = p \cdot \Delta V$$

$$\vec{\omega} = \frac{\Delta \vec{\varphi}}{\Delta t} \quad \vec{\varepsilon} = \frac{\Delta \vec{\omega}}{\Delta t} \quad a = \sqrt{a_t^2 + a_n^2} \quad a_t = \frac{dv}{dt} \quad a_n = \frac{v^2}{R}$$

$$\vec{M} = \vec{r} \times \vec{F} \quad \vec{L} = \vec{r} \times m \cdot \vec{v} \quad \vec{M} = \frac{d\vec{L}}{dt} \quad E_{kr} = \frac{1}{2} J \cdot \omega^2$$

$$\vec{l} = -D \frac{dc}{dx} \quad c_{str} = \frac{\Delta N}{\Delta V} \quad F = 6\pi \cdot r \cdot \eta \cdot v \quad F = \eta \cdot S \frac{dv}{dx}$$

$$Q = -\lambda \cdot S \frac{T_2 - T_1}{d} \tau \quad q = \frac{Q}{S \cdot \tau} \quad \Delta l = l_0 \cdot \alpha \cdot \Delta t \quad \Delta V = V_0 \cdot \beta \cdot \Delta t$$

$$g = 9,81 \text{ m} \cdot \text{s}^{-2} (10 \text{ m} \cdot \text{s}^{-2}), \quad R = 8,31 \text{ J} \cdot \text{K}^{-1} \cdot \text{mol}^{-1}, \quad k = 1,38 \cdot 10^{-23} \text{ J} \cdot \text{K}^{-1}$$