Dados

$$1 \times 10^{-9} m = 1nm \bullet 1m^3 = 10^{-6} cm^3 = 1000L$$

$$1atm = 101,3kPa \bullet g = 9{,}8m/s^2 \bullet \rho_{agua} = 1000kg/m^3$$

$$\kappa_{boltzmann} = 1,38 \times 10^{-23} J/K \bullet u_{massaatomica} = 1,66 \times 10^{-27} kg$$

$$\sigma = 5,67 \times 10^{-8} W/m^2 K^4 \bullet R = 8,314 J/mol \cdot K$$

$$c_v^{gas-mono} \approx 12,5 J/mol \cdot K \bullet c_v^{gas-dia} \approx 20,8 J/mol \cdot K \bullet$$

$$c_v^{solido-elementar} \approx 25 J/mol \cdot K$$

$$P_A + \frac{1}{2}\rho v_A^2 + \rho g y_A = cte \bullet A_1 v_1 = A_2 v_2 \bullet p = p_o + \rho g h \bullet \frac{F}{A} = Y\frac{\Delta L}{L_0} \bullet$$

$$Q = mc\Delta T \bullet Q = \pm mL$$

$$PV = N\kappa_B T = nRT \bullet c_P - c_V = R \bullet \gamma = c_P/c_V \bullet PV^\gamma = cte$$

$$\Delta E^{term} = Q + W^s = Q - \int PdV \bullet \eta = W^{saída}/Q_Q \bullet K = Q_F/W^{entrada}$$

$$\epsilon_{med} = \frac{3}{2}\kappa_B T \bullet \lambda = \frac{1}{4\sqrt{2}\pi\frac{N}{V}a^2} \bullet P = e\sigma A T^4$$

Cartão Resposta