**Subiectul B. ELEMENTE DE TERMODINAMICĂ**

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| **II.a.** | $\upsilon_i = (p_0 \cdot V)/(R \cdot T)$<br>Rezultat final: $\upsilon_i \approx 1{,}24\,\text{mol}$ |
| **b.** | $\rho_0 = \frac{m_0}{V}$<br>Rezultat final: $m_0 = 39\,\text{g}$ |
| **c.** | $p_0 V = \frac{m}{\mu} RT$<br>$pV = \frac{m + \Delta m}{\mu} RT$<br>$\Delta m = \frac{p_0 V \mu}{RT}\left(\frac{p}{p_0} - 1\right)$<br>Rezultat final: $\Delta m = 70{,}2\,\text{g}$ |
| **d.** | $\Delta N = \Delta\upsilon \cdot N_A$<br>$\Delta\upsilon = \upsilon - \upsilon_1$ unde $\upsilon_1 = (p \cdot V)/(R \cdot T_1)$<br>$\Delta N = \frac{p \cdot V}{R} \cdot \frac{T_1 - T}{T_1 \cdot T} \cdot N_A$<br>Rezultat final: $\Delta N \cong 6{,}68 \cdot 10^{23}$ |