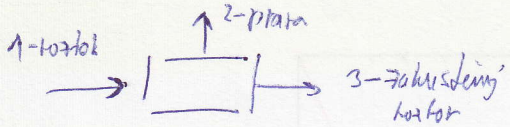
D.Ú

**Ú2-2**

57 kg/h 44 % m A 12 kg/h voda
56 % m voda




| | | | |
|---|---|---|---|
| A- | 0,44 | — | $w_{A3}$ |
| B-voda | 0,56 | 1 | $w_{B3}$ |
| | 57 kg/h | 12 kg/h | $m_3$ |

$0,44 \cdot 57 = w_{A3} \cdot m_3$

$57 + 12 = m_3 + 12$

$m_3 = 57$ kg

$w_{A3} = 0,557$

**Ú2-4**

Cl 1,6 obj % $O_2$ 3,6 obj % $O_2$

5 min + 33 s → 20 kg $O_2$ $\dot{V} = ?$ min. použití

$M = \frac{m}{n}$

| | | | | |
|---|---|---|---|---|
| A-Cl | 0,9836 | 0,984 | — | 0,964 |
| B-$O_2$ | | 0,016 | 1 | 0,036 |
| | | $n_1$ | $n_2$ | $n_3$ |

$M(O_2) = 32 \frac{kg}{kmol}$

$= 0,032 \frac{kg}{mol}$

$n_2 = m_2/M = \frac{20\ kg}{32\ kg/kmol} = 0,625\ kmol$

$n_2 = 625$ mol

$0,984\ n_1 = 0,964 \cdot n_3$

$n_1 + 625 = n_3$

$0,984\ n_1 = 0,964\ n_1 + 602,5$

$0,02\ n_1 = 602,5$

$n_1 = 30125$ mol za 5 min 33 s

$n_1 = 90,465$ mol/s

$pV = nRT$

$V = n \frac{RT}{p} = 90,465 \cdot \frac{8,314 \cdot 293,15}{0,1 \cdot 10^5} = 2,204 \frac{m^3}{s}$