Rozwiązania zadań z lekcji nr 11 z dnia 05.05.20

Zad 1.

Dane

$m_{r_1} = 200g$

$C_{p_1} = 15\%$

$m_s = 30g$

Szukane

$C_{p_2} = ?$

$$m_{s_1} = \frac{15\% \cdot 200g}{100\%} = 30g$$

$$m_{s_2} = 30g + 30g = 60g$$

$$m_{r_2} = 200g + 30g = 230g$$

$$C_{p_2} = \frac{60g \cdot 100\%}{230g} = 26,087 \approx 26\%$$

Odp: Nowe stężenie procentowe wynosi ok 26%

Zad 2

$V_1 = 80\ cm^3$

$d_1 = 1,18\ g/cm^3$

$C_{p_1} = 20\%$

$m = 10g$

Szukane C_{p_2}

$$m_{r_1} = 80\ cm^3 \cdot 1,18\ g/cm^3 = 94,4\ g$$

$$m_{r_2} = 94,4g + 10g = 104,4g$$

$$m_{s_1} = \frac{94,4g \cdot 20\%}{100\%} = 18,88g$$

$$m_{s_2} = 18,88g + 10g = 28,88g$$

$$C_{p_2} = \frac{28,88g}{104,4g} \cdot 100\% = 27,662\% \approx 27,7\%$$

Odp: Nowe stężenie procentowe wynosi ok 27,7%