



OLIMPIADA „ȘTIINȚE PENTRU JUNIORI”

– etapa județeană –
28 mai 2011

CHIMIE

BAREM DE EVALUARE

Subiectul I.....10 puncte

1-a; 2-c;3-c; 4-b; 5-d; 6-b; 7-a; 8-c; 9-a; 10-b.

10 x 1 punct = 10 puncte

Subiectul II.....20 puncte

a) $m_d = 472 \text{ g H}_2\text{SO}_4$ 3 p

$c\% = 15,73\%$ 2 p

b) $V_s = 2720 \text{ mL}$ 4 p

$n_{\text{H}_2\text{SO}_4 \text{ probă}} = 17,7 \cdot 10^{-3} \text{ moli}$ 3 p

$\text{H}_2\text{SO}_4 + \text{Pb}(\text{NO}_3)_2 \rightarrow \text{PbSO}_4 + 2\text{HNO}_3$ 1 p

$m_{s \text{ Pb}(\text{NO}_3)_2} = 292,935 \text{ g soluție Pb}(\text{NO}_3)_2 \text{ 2\%}$ 2p

c) $\text{Zn} + \text{H}_2\text{SO}_4 \rightarrow \text{ZnSO}_4 + \text{H}_2$ 1 p

$m_{\text{Zn}} = 1,45 \text{ g exces}$ 2 p

d) $V_{\text{H}_2} = 0,396 \text{ mL}$ 2 p