

Олимпиадная работа

по химии

ученица 10 класса "А"

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285

N 1.

Дано:

$$W(H_2O) = 17\%$$

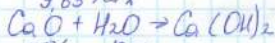
$$m(CaO) = 9,65\%$$

$$W(CaO) = ?$$

$$W(Ca(OH)_2) = ?$$

Решение:

$$9,65\% \cdot x$$



$$56\% \quad 18\%$$

$$W(Ca(OH)_2) = \frac{9,65 \cdot 18}{56} = \frac{173,7}{56} = 3,10\%$$

$$\text{Ответ: } W(Ca(OH)_2) = 3,10\%$$

N 2.

Пусть x

$$m = 1000 \cdot x, \text{ где } 1000 - 17,1 \text{ р. где } 1000 \text{ см} - 9,$$

$$1000 \cdot 9 = 17,1 \cdot 1000x$$

$$9000 = 17,1 \cdot 1000x$$

$$17,1 \cdot 1000x = 9000$$

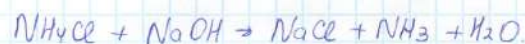
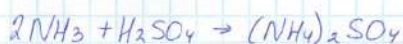
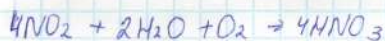
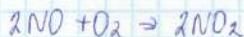
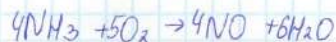
$$1000x = \frac{9000}{17,1}$$

$$1000x = 526,3$$

$$x = 0,532/\text{см}.$$

$$\text{Ответ: } x = 0,532/\text{см}.$$

N 3.



N 4.

Дано:

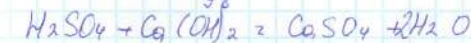
$$m(H_2SO_4) = 4902$$

$$m(\text{р-ра кук}) = 15312$$

$$V(\text{р-ра кук}) = 123,94 \text{ см}^3$$

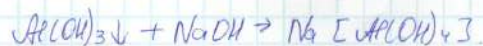
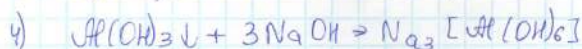
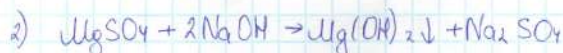
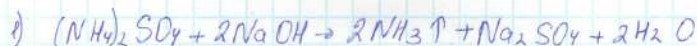
$$m(\text{кук}) = 140 \cdot 1,235 = 172,92$$

$$V(H_2SO_4) = \frac{172,9}{98} = 1,8 \text{ см}^3$$



$$V(Ca(OH)_2) = 1,8 \quad m(Ca(OH)_2) = 1,8 \cdot 74 = 133,22$$

N 5



68

10

98