

Шифр

55-8-3

Открытая межвузовская олимпиада школьников СФО

«Будущее Сибири»

2 этап (заключительный)

Письменная работа

на олимпиаде по химии

Сведения об участнике олимпиады

605 чд

Фамилия:

Г О И Д А

Имя:

Р О М А Н

Отчество:

Г Р О С Л А В О В И Ч

Учащийся

8 класса школы № МБОУ СОШ им. В.М. Смирнова

г. Новосибирск

(города/села, района)

Тюменская

(области)

Дата рождения

10.01.2003 года

Контактная информация – телефон(ы): 8320512318

E-mail: goyda-roma@mail.ru

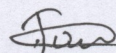
Пункт проведения этапа

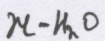
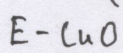
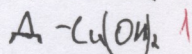
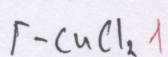
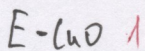
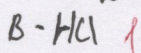
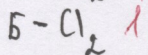
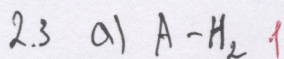
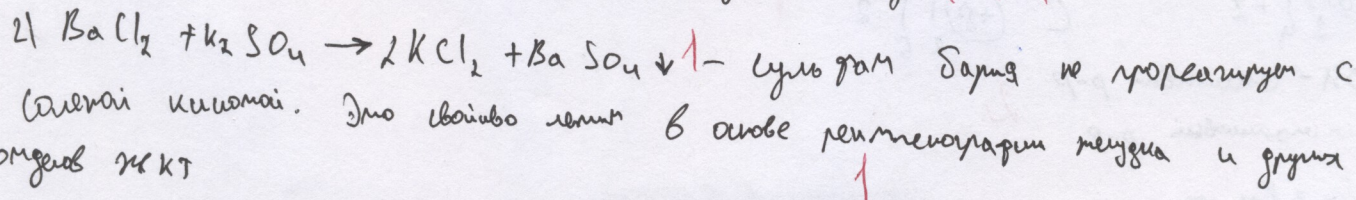
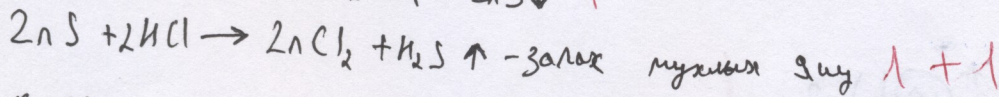
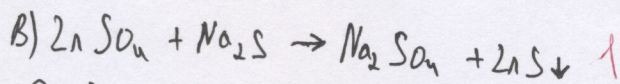
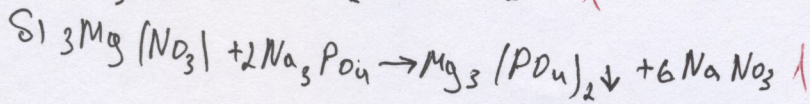
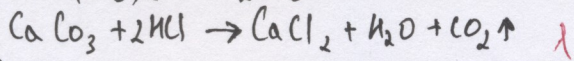
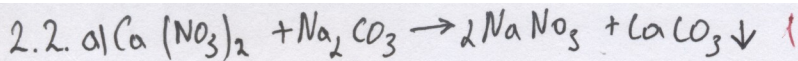
ОмГТУ

Дата проведения этапа 15.02.2018

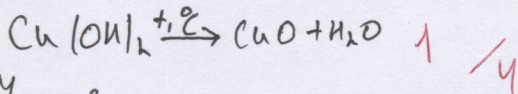
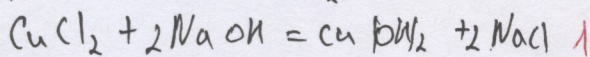
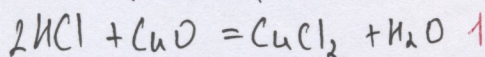
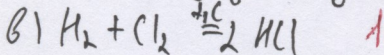
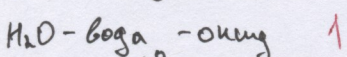
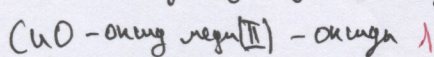
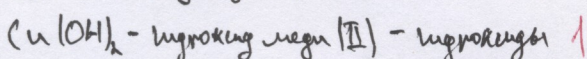
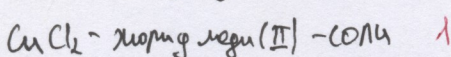
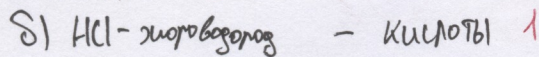
Даю согласие на обработку моих персональных данных и информирование меня посредством sms и e-mail о моих результатах и всех дальнейших мероприятиях, связанных с олимпиадой

Личная подпись



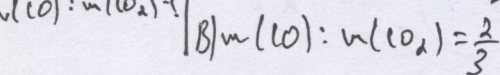
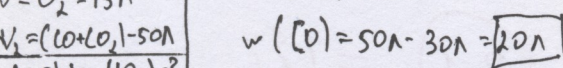
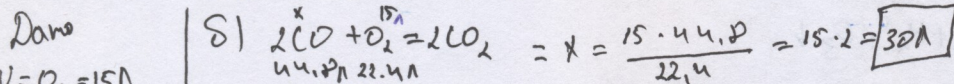
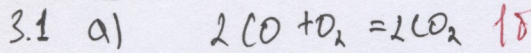


$$(2.2)_{\Sigma} = 85$$



$$(2.3)_{\Sigma} = 168$$

Уравнения



$$(3.1)_{\Sigma} = 15$$

3.2

$$M. \text{longum} = 102$$

$$V_{HCl} = 50 \text{ ml}$$

$$\rho_{HCl} = 1.043 \frac{\text{g}}{\text{ml}}$$

$$w_{HCl} = 10\% \text{ m}$$

$$V_{H_2O} = 1.24 \text{ ml}$$

$$M. \text{Densitas} \text{ 60\%} =$$

$$= 500 \text{ mg}$$

$$w_N = 5\%$$

$$\rho_N = 1.028 \frac{\text{g}}{\text{ml}}$$

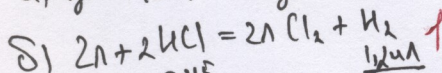
$$V_{H_2O} = 1.493$$

$$M(\text{Cu}) - ?$$

$$M(\text{Zn}) - ?$$

Scheme

$$a) \text{ given } (2\text{N}) \text{ u } \text{Mg} \text{ (Cu)}$$



$$1. B) \frac{x}{\frac{1 \text{ mol}}{65 \text{ g}}} + \frac{5.215}{\frac{2 \text{ mol}}{83 \text{ g}}} = 2\text{NCl}_2 + \frac{1.24 \text{ ml}}{\frac{1 \text{ mol}}{22.4 \text{ g}}}$$

$$M(\text{HCl}) = V\rho$$

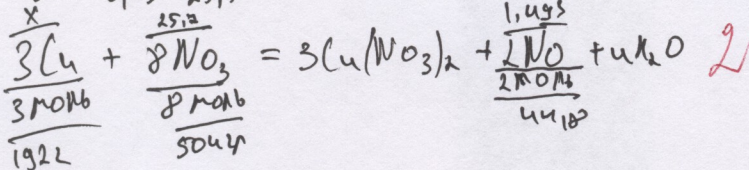
$$M = 50 \cdot 1.043 = 52.15 \frac{\text{HCl}}{\text{ml}}$$

$$\frac{M(\text{HCl})}{\text{molar}} = 52.15 \cdot 0.1 = 5.215$$

$$M(\text{Zn}) = \frac{65 \cdot 1.24}{22.4} = 3.584$$

$$2. M(\text{HNO}_3) = V\rho = 500 \cdot 1.028 = 514$$

$$514 \cdot 0.05 = 25.7$$



$$x = \frac{192 \cdot 1.493}{44.58} = 6.4$$

$$\text{Orkem: } M(\text{Zn}) = 3.584$$

$$M(\text{Cu}) = 6.4$$

$$3.2 = 65$$

1	2.1	2.2	2.3	3.1	3.2	Σ
17	12	8	16	1	6	60