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28

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1. ,
2. (“ ”)
3. ,
4. ” ”

1. (, , ,)

2. - ,)

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(100) 1:2 (), 1:12

- 2,0-2,5 ,

(3 5 10) .

. 2 ,

. =8,0-9,0 25

10 ,

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(. .)

). 100 250-500 0,02

, - , -2,5

, 20 % - -2,5

. =2,5 0,02

, 200 ,

, 20-30 0.02 ,

, ,

, 10 %

40

=2,0-2,5

(NaOH

20%
).

=8,0-9,0

(

1/3

10-15

10 0,1

5
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1

1.

2.

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3.

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7.

=2,5-3,0 8,0-9,0

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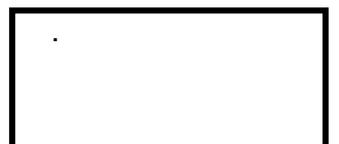
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2. ,

3.



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3-4

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3-4

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2.

9:1

10

3.

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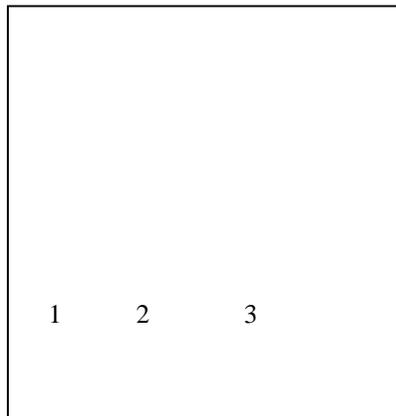
1,5 - 2

1-

()

() 1-2

10



4. - :) 0,1 % ()
 , 5 % 2
 % . Rf-

	Rf-	
Na		

5. - .
 , 5 , 10 .
 , 2 (=10) -
 220-300 .
 , }_{max}= 240 -
 1-2 2 , (=2) .
 (=13) , 1-2 4
 }_{max}= 255
 =2, =10, =13
 , ?
 .
 =13,0 =10,0
 }= 260
 ,
 .
 :

$$1\%_{1\text{cm}} = \frac{\Delta D}{C \cdot l}$$

$$\Delta D = D_{\text{pH}=13} - D_{\text{pH}=10}$$

1 - , %
1%
1cm⁻

100 (0,05)

7,4

1000

50
8, 10, 15, 20

10

4, 6,

260

=13

(

1-2

).

:

- 260
- 195
- 206
- 210
- 195

50

2

2

2

).

2

5

,

1

“ ”

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2

(0,01%

(70:40:5)

-25%-

10

0,02%-

13

5%

7,4

4-5

10

10

=10
5

}=260

(10)

(2)

=13

1-2

}=260

(1)

$\Delta * 1000$

$$= \frac{\Delta * 1000}{1\% * 100}$$

-100

$\Delta_{1\% \text{ Icm}}$

/ I =13 - 2 =10/

1.

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2.

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3.

?

4.

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5.

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6.

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7.

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4-

_____ :

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4 -

1. _____

2. _____ 1

()

1 ,

3. _____ 1-2

1 5 % , 1 0,1

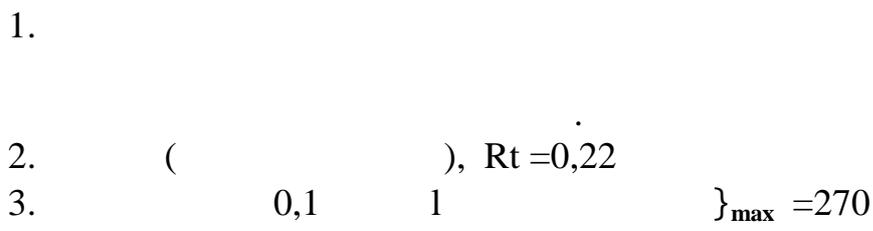
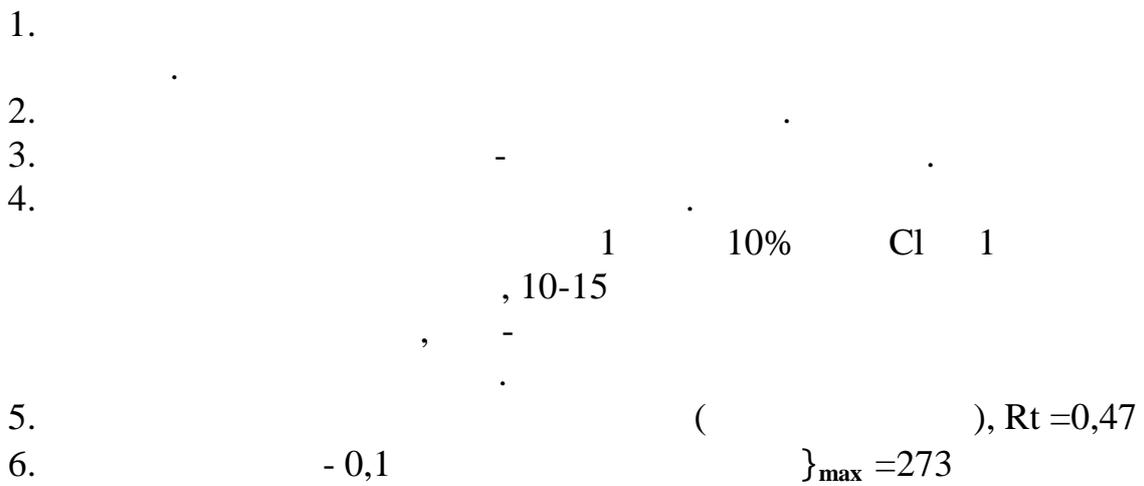
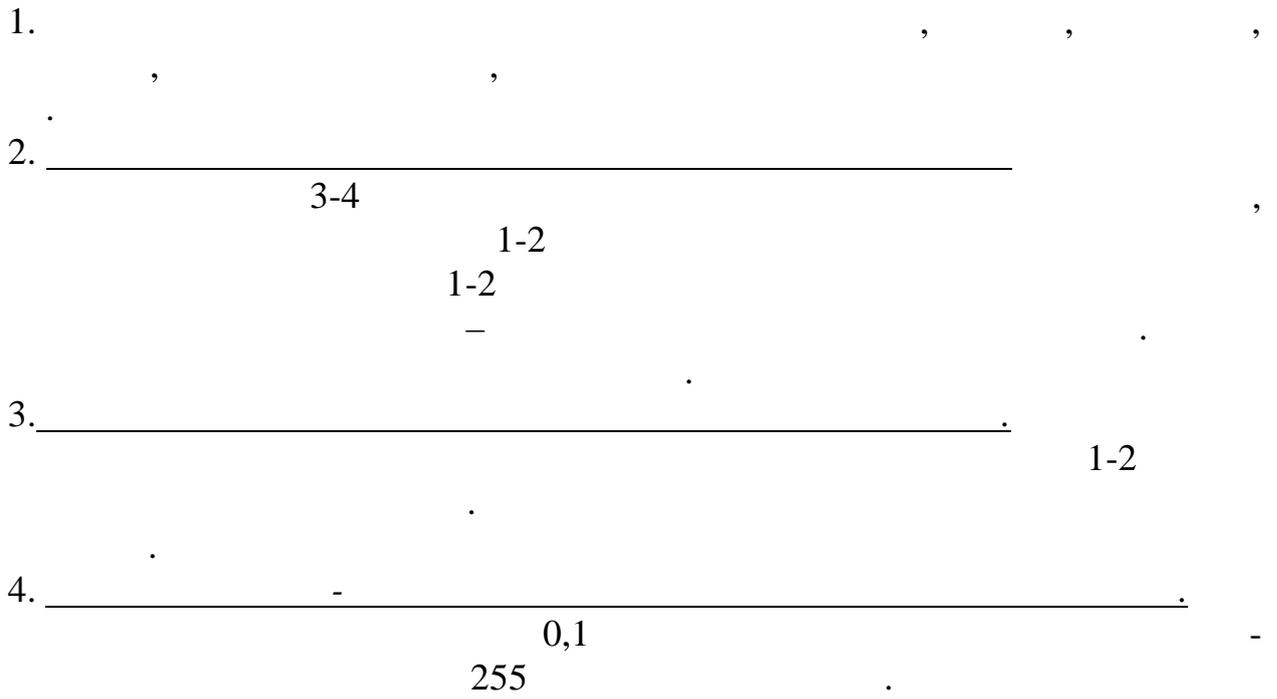
4. _____ 273 , 0,1

5. _____ }_{max} = 272 1-2

6. _____ : - 96⁰ -25%

NH₄OH (40:20:1). 0,1

25% 1 1:1 , -



1. ()

2.

3.

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4.

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7.

8.

9.

$2 \text{r}_2\text{O}_7$

10.

11.

2SO_4

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12.

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13.

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1. _____.

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1 %

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2 %

3. _____ .

20 %

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4. _____ .

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250

5. _____

6. _____.

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1. 1

2-3

10 %

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2. 1

0,5

5 %

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3. 1, 3-5 1 %
3-5

4. (1:9)
, Rf =0,15-0,17 FeCl₃

- 1. ?
- 2. ?
- 3.
- 4.
- 5. ?
- 6. ?
- 7. (III) , ?
- 8. ?
- 9. ?
- 10. ?
- 11. ?

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