

/ 601—2016
GB/ T 601—2002

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4 205....		

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GB/T 11—2009

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3 2

/ 601—2016

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——GB/T 601—1965 GB/T 601—1977 GB/T 601—1988 GB/T 601—2002

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1

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， () ，

GB/T 603

GB/T 606

GB/T 6379 **6 T**

$[CR_{0.95}(8) = 0.18\%]$ 5 ,
 , 4 ,
 (C)
 3.7 0.2% ($k = 2$) , D
 3.8 , (0.05%) ,
 ,
 3.9 0.02 mol/L (0.02 mol/L
), (,
), ,
 3.10 :
 a) , 10 ~ 30 , 6 ;
 $[c(\text{NaNO}_2) = 0.1 \text{ mol/L}]$ 4 ;
 - () 2
 b) 10 ~ 30 , 2 (,
); - 1 ;
 $[c(\text{NaNO}_2) = 0.1 \text{ mol/L}]$ 15 d ;
 c) , , 0.5 mm
 3.11 , , 0.5 mm
 3.12 “% ” “ (95%) ”
 4 Ž É0 f Å O H ‘ĐÈà C
 4.1 HX
 4.1.1 É0 !T 0 ‡ 5.5

30 s

2

$c(\text{NaOH})/(\text{mol/L})$	m/g	V/mL
1	7.5	80
0.5	3.6	80
0.1	0.75	50

$c(\text{NaOH})$, (1) :

$c(\text{NaOH}) = \frac{m}{V} \times 10$

$c(\text{HCl})$], (2) :

$$c(\text{HCl}) = \frac{m \times 1\,000}{(V_1 - V_2) \times M} \dots\dots\dots (2)$$

:

m — , (g);
 V_1 — , (mL);
 V_2 — , (mL);
 M — , (g/mol) [$M(1/2 \text{Na}_2\text{CO}_3) = 52.994$]

4.3

4.3.1

5 , , 1 000 mL , ,

5

$c(1/2 \text{H}_2\text{SO}_4)$ / (mol/L)	V / mL
1	30
0.5	15
0.1	3

4.3.2

6 , 270 ~ 300 ,
 50 mL , 10 - ,
 2 min , , ,

6

$c(1/2 \text{H}_2\text{SO}_4)$ / (mol/L)	m / g
1	1.9
0.5	0.95
0.1	0.2

$c(1/2 \text{H}_2\text{SO}_4)$], (3) :

$$c(1/2 \text{H}_2\text{SO}_4) = \frac{m \times 1\,000}{(V_1 - V_2) \times M} \dots\dots\dots (3)$$

:

m — , (g);
 V_1 — , (mL);
 V_2 — , (mL);
 M — , (g/mol) [$M(1/2 \text{Na}_2\text{CO}_3) = 52.994$]

4 4

4 4 1

4 4 1 1

7 , , 1 000 mL ,

7

$c(1/2 \text{ Na}_2\text{CO}_3)/(\text{mol/L})$	m/g
1	53
0.1	5.3

4 4 1 2

35.00 mL ~ 40.00 mL , 8 , 10 -
 , 8 , 2 min ,

8

$c(1/2 \text{ Na}_2\text{CO}_3)/(\text{mol/L})$	V/mL	$c(\text{HCl})/(\text{mol/L})$
1	50	1
0.1	20	0.1

 $[c(1/2 \text{ Na}_2\text{CO}_3)]$, (4) :

$$c(1/2 \text{ Na}_2\text{CO}_3) = \frac{(V_1 - V_2) \times c_1}{V} \dots\dots\dots (4)$$

:

 V_1 — , (mL); V_2 — , (mL); c_1 — , (mol/L); V — , (mL)

4 4 2

9 , 270 ~ 300 ,
 , 1 000 mL ,

9

$c(1/2 \text{ Na}_2\text{CO}_3)/(\text{mol/L})$	m/g
1	53.00 ± 1.00
0.1	5.3 ± 0.20

$[c(1/2 Na_2CO_3)]$, (5) :

$$c(1/2 Na_2CO_3) = \frac{m \times 1000}{V \times M} \dots\dots\dots (5)$$

:

m —

, (g);

V —

, (mL);

M —

, (g/mol) $[M(1/2 Na_2CO_3) = 52.994]$

4.5

[

4 6 2

0.18 g 120 ± 2 , , 25 mL
 , 2g 20 mL (20%) , , 10 min 150 mL (15 ~ 20) ,
 , 2 mL (10 g/L) ,

$c(\text{Na}_2\text{S}_2\text{O}_3)$, (8) :

$$c(\text{Na}_2\text{S}_2\text{O}_3) = \frac{m \times 1000}{(V_1 - V_2) \times M} \dots\dots\dots (8)$$

:

m — , (g);

V_1 — , (mL);

V_2 — , (mL);

M — , (g/mol) [$M(1/6 \text{K}_2\text{Cr}_2\text{O}_7) = 49.031$]

4 7 [(1/2 Br_2) = 0.1 /]

4 7 1

3 g 25 g , 1 000 mL ,

4 7 2

35.00 mL ~ 40.00 mL , , 2 g 5 mL (20%) ,
 , 5 min 150 mL (15 ~ 20) , $c(\text{Na}_2\text{S}_2\text{O}_3) =$
 0.1 mol/L] , 2 mL (10 g/L) ,

$c(1/2 \text{Br}_2)$, (9) :

$$c(1/2 \text{Br}_2) = \frac{(V_1 - V_2) \times c_1}{V} \dots\dots\dots (9)$$

:

V_1 — , (mL);

V_2 — , (mL);

c_1 — , (mol/L);

V — , (mL)

4 8 [(1/6 Br_2) = 0.1 /]

4 8 1

3 g , 1 000 mL ,

4 8 2

35.00 mL ~ 40.00 mL , , 2 g 5 mL
 (20%) , , 5 min 150 mL (15 ~ 20) ,
 $c(\text{Na}_2\text{S}_2\text{O}_3) = 0.1 \text{ mol/L}$, 2 mL (10 g/L) ,

$[c(1/6 \text{ KBrO}_3)]$, (10) :

$$c(1/6 \text{ KBrO}_3) = \frac{(V_1 - V_2) \times c_1}{V} \dots\dots\dots (10)$$

:

V_1 — , (mL);
 V_2 — , (mL);
 c_1 — , (mol/L);
 V — , (mL)

4 9 [$(1/2 \text{ I}_2) = 0.1 \text{ g/L}$]

4 9 1

13 g 35 g , 100 mL , 2 , 1 000 mL ,

4 9 2

4 9 2 1

0.18 g , 6 mL
 $[c(\text{NaOH}) = 1 \text{ mol/L}]$, 50 mL , 2 (10 g/L),
 $[c(1/2 \text{ H}_2\text{SO}_4) = 1 \text{ mol/L}]$, 3 g 2 mL (10 g/L),

$[c(1/2 \text{ I}_2)]$, (11) :

$$c(1/2 \text{ I}_2) = \frac{m \times 1\,000}{(V_1 - V_2) \times M} \dots\dots\dots (11)$$

:

m — , (g);
 V_1 — , (mL);
 V_2 — , (mL);
 M — , g/mol [$M(1/4 \text{ As}_2\text{O}_3) = 49.460$]

4 9 2 2

35.00 mL ~ 40.00 mL , 150 mL (15 ~ 20), 5 mL
 $[c(\text{HCl}) = 0.1 \text{ mol/L}]$, $[c(\text{Na}_2\text{S}_2\text{O}_3) = 0.1 \text{ mol/L}]$,
 2 mL (10 g/L),
 : 250 mL (15 ~ 20), 5 mL $[c(\text{HCl}) =$
 $0.1 \text{ mol/L}]$, 0.05 mL ~ 0.20 mL 2 mL (10 g/L),
 $[c(\text{Na}_2\text{S}_2\text{O}_3) = 0.1 \text{ mol/L}]$

$[c(1/2 \text{ I}_2)]$, (12) :

$$c(1/2 \text{ I}_2) = \frac{(V_1 - V_2) \times c_1}{V_3 - V_4} \dots\dots\dots (12)$$

:

V_1 — , (mL);
 V_2 — , (mL);
 c_1 — , (mol/L);

V_3 ———， (mL) ；
 V_4 ———， (mL)

4 10

4 10 1

4 10 1 1

10 ， 1 000 mL ，
10

$c(1/6\text{ KIO}_3)/(\text{mol/L})$	m/g
0.3	11
0.1	3.6

4 10 1 2

11 ，

0.01 mol/L
O₂H₂A²⁻ES
Ø

ÂÉÓÓÓÁ

M — , $(g/mol) [M (1/2 Na_2 C_2 O_4) = 66\,999]$
4 12 $[(1/5_4) = 0\,1_z$ Ä 12 1 P F Ž P • • Ä Z P P P] Ä70&• Ä DĐÈ•

m — : , (g)

13

$c(\text{EDTA})/(\text{mol/L})$	m/g
0.1	40
0.05	20
0.02	8

4.15.1.2

4.15.1.2.1 [() = 0.1 / , () = 0.05 /]

14 , 800 ± 50 ,
 , 2 mL (20%) , 100 mL , (10%) pH 7 ~ 8 ,
 10 mL - (pH ≈ 10) 5 T (5 g/L) ,

14

$c(\text{EDTA})/(\text{mol/L})$	m/g
0.1	0.3
0.05	0.15

$c(\text{EDTA})$, (21) :

$$c(\text{EDTA}) = \frac{m \times 1000}{(V_1 - V_2) \times M} \dots\dots\dots (21)$$

:

m — , (g);
 V_1 — , (mL);
 V_2 — , (mL);
 M — , (g/mol) [$M(\text{ZnO}) = 81.408$]

4.15.1.2.2 [() = 0.02 /]

0.42g 800 ± 50 , ,
 3 mL (20%) , 250 mL , 35.00 mL ~ 40.00 mL ,
 70 mL , (10%) pH 7 ~ 8 , 10 mL - (pH ≈ 10) 5
 T (5 g/L) ,

$c(\text{EDTA})$, (22) :

$$c(\text{EDTA}) = \frac{m \times \frac{V_1}{250} \times 1000}{(V_2 - V_3) \times M} \dots\dots\dots (22)$$

:

m — , (g);
 V_1 — , (mL);
 V_2 — , (mL);
 V_3 — , (mL);
 M — , (g/mol) [$M(\text{ZnO}) = 81.408$]

4.15.2

15 , 7 d
 , , 1 000 mL ,

15

$c(\text{EDTA})/(\text{mol/L})$	m/g
0.1	37.22 ± 0.50
0.05	18.61 ± 0.50
0.02	7.44 ± 0.30

$c(\text{EDTA})$], (23) :

$$c(\text{EDTA}) = \frac{m \times 1\,000}{V \times M} \dots\dots\dots (23)$$

:

m — , (g);
 V — , (mL);
 M — , (g/mol) [$M(\text{EDTA}) = 372.24$]

4.16

4.16.1

4.16.1.1

16 , 1 000 mL (1 + 2 000) ,

16

$c(\text{ZnCl}_2)/(\text{mol/L})$	m/g
0.1	14
0.05	7
0.02	2.8

4.16.1.2

17 , 7d ,

100 mL , 10 mL - (pH ≈ 10) ,
 5 T (5 g/L) ,

17

$c(\text{ZnCl}_2) / (\text{mol/L})$	m / g
0.1	1.4
0.05	0.7
0.02	0.28

$[c(\text{ZnCl}_2)]$, (24) :

$$c(\text{ZnCl}_2) = \frac{m \times 1000}{(V_1 - V_2) \times M} \dots\dots\dots (24)$$

:

m — , (g);
 V_1 — , (mL);
 V_2 — , (mL);
 M — , (g/mol) [$M(\text{EDTA}) = 372.24$]

4.16.2

18 , 800 ± 50 ,
 , 18 (20%) , 1 000 mL ,

18

$c(\text{ZnCl}_2) / (\text{mol/L})$ m / g ♦
 %

4 17 2

100 mL 1.4 g, 10 mL - 7 d (pH ≈ 10), (),
 5 T (5 g/L),
 () [MgCl₂] = 0.1 mol/L c (MgSO₄) = 0.1 mol/L],
 (26) :

$$c = \frac{m \times 1\,000}{(V_1 - V_2) \times M} \dots\dots\dots (26)$$

:
 m — (g);
 V₁ — (mL);
 V₂ — (mL);
 M — (g/mol) [M (EDTA) = 372.24]

4 18 { [()] = 0.05 / }

4 18 1

17 g, 1 000 mL (1 + 2 000),

4 18 2

35.00 mL ~ 40.00 mL, 3 mL () 5 g,
 70 mL 2 (2 g/L), [c (EDTA) = 0.05 mol/L]

[Pb(NO₃)₂], (27) :

$$c [\text{Pb}(\text{NO}_3)_2] = \frac{(V_1 - V_2) \times c_1}{V} \dots\dots\dots (27)$$

:
 V₁ — (mL);
 V₂ — (mL);
 c₁ — (mol/L);
 V — (mL)

4 19 [() = 0.1 /]

4 19 1

4 19 1 1

5.9 g, 1 000 mL,

4 19 1 2

GB/T 9725—2007 : 35.00 mL ~ 40.00 mL, 40 mL
 0 mL 9

$$c(\text{NaCl}) = \frac{V_0 \times c_1}{V} \dots\dots\dots (28)$$

:
 V_0 ——— , (mL);
 c_1 ——— , (mol/L);
 V ——— , (mL)

4 19 2

5.84 g ± 0.30 g 550 ± 50 , ,
 1 000 mL ,

$[c(\text{NaCl})]$, (29) :

$$c(\text{NaCl}) = \frac{m \times 1\,000}{V \times M} \dots\dots\dots (29)$$

:
 m ——— , (g);
 V ——— , (mL);
 M ——— , (g/mol) [$M(\text{NaCl}) = 58.442$]

4 20 () [() = 0.1 / , () = 0.1 / ,
 (4) = 0.1 /]

4 20 1

8.2 g (9.7 g 7.9 g), 1 000 mL ,

4 20 2

4 20 2 1

GB/T 9725 X

() (c), (31) :

$$c = \frac{V_0 \times c_1}{V} \dots\dots\dots (31)$$

:

V_0 ———, (mL);
 c_1 ———, (mol/L);
 V ——— () , (mL)

4 21 [(₃) = 0 1 /]

4 21 1

17 5 g , 1 000 mL ,

4 21 2

GB/T 9725—2007 : 0 22 g 500 ~ 600
 , 70 mL , 10 mL (10 g/L), 216 217
 , GB/T 9725—2007 6 2 2

V_0

[c (AgNO₃)], (32) :

$$c (\text{AgNO}_3) = \frac{m \times 1\,000}{V_0 \times M} \dots\dots\dots (32)$$

:

m ———, (g);
 V_0 ———, (mL);
 M ———, (g/mol) [M (NaCl) = 58 442]

4 22

4 22 1

19 , , 250 mL , (1 + 1)
 , , 1 000 mL ,

19

$c \text{ [1/2 Hg (NO}_3)_2] \text{ (mol/L)}$	m/g	V/mL (1 + 1)	m/g	V/mL (1 + 1)
0 1	17 2	7	10 9	20
0 05	8 6	4	5 5	10

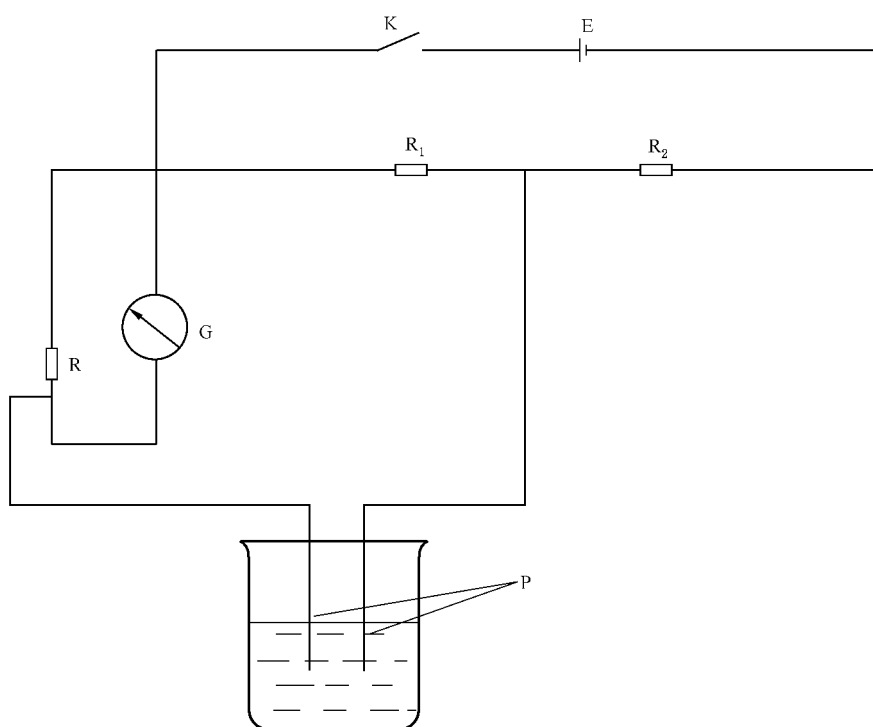
4 22 2

20 , 500 ~ 600 ,
 100 mL , 3 ~ 4 , (8 + 92)
 , 5 ~ 6 ; , (40 g/L)
 (8 + 92) , 5 ~ 6 10 (5 g/L

), (,
E)

20

$c [1/2 \text{Hg}(\text{NO}_3)_2] / (\text{mol/L})$	m / g
0 1	0 2



:
 R — () ;
 R₁ — (60 Ω ~ 70 Ω , , 50 mV) ;
 R₂ — (2 000 Ω) ;
 E — (1.5 V) ;
 K — ;
 G — (10⁻⁹ A /) ;
 P —

1

$c(\text{NaNO}_2)$, (34) :

$$c(\text{NaNO}_2) = \frac{m \times 1\,000}{(V_1 - V_2) \times M} \dots\dots\dots (34)$$

:

m — , (g) ;
 V₁ — , (mL) ;
 V₂ — , (mL) ;
 M — , (g/mol) {M [C₆H₄(NH₂)(SO₃H)] =
 173.19 }

4 23 2 2

22 , 120 ± 2
 , 200 mL () 20 mL
 10 mm , , ,
 , - () , 5 min ,
 ,
 20

$c(\text{NaNO}_2)$, (35) :

$$c(\text{NaNO}_2) = \frac{m \times 1\,000}{(V_1 - V_2) \times M} \dots\dots\dots (35)$$

:

m ———, (g);
 V_1 ———, (mL);
 V_2 ———, (mL);
 M ———, (g/mol) $\{M[\text{C}_6\text{H}_4(\text{NH}_2)(\text{SO}_3\text{H})]=173.19\}$

4.24 [() = 0.1 /]

4.24.1

4.24.1.1

8.7 mL, 500 mL (), 20 mL,
 () 1 000 mL

4.24.1.2 ¹⁾

8.7 mL, 950 mL (), 5 mL,
 , GB/T 606 (w₁)
 , () 1 000 mL,
 (V), (36) :
 $V = 5.320 \times w_1 - 2.8 \dots\dots\dots (36)$

:

w_1 ———, %

4.24.2

0.75 g 105 ~ 110,
 , 50 mL (), 3 (5 g/L),
 ()

$c(\text{HClO}_4)$, (37) :

$$c(\text{HClO}_4) = \frac{m \times 1\,000}{(V_1 - V_2) \times M} \dots\dots\dots (37)$$

:

m ———, (g);
 V_1 ———, (mL);
 V_2 ———, (mL);
 M ———, (g/mol) $[M(\text{KHC}_8\text{H}_4\text{O}_4)=204.22]$

4.24.3

, ; 4, (38)
 ; 4,

1)

0.05%

$$[c_1(\text{HClO}_4)] , \quad (38) \quad :$$

$$c_1(\text{HClO}_4) = \frac{c}{1 + 0.0011 \times (t_1 - t)}$$

V_1 ——— - 8€ , (mL) ;
 V_2 ——— $\text{H}_2\text{O} (\text{C}_{\text{H}_2\text{O}} = 1000 \text{ g/L})$, (mL) ;
 M ——— , (g/mol) [$M(\frac{1}{2} \text{Na}_2\text{CO}_3) = 52.994$]

4 26 2 2

35.00 mL ~ 40.00 mL - , 2 (10 g/L) ,
 $c(\text{NaOH}) = 0.5 \text{ mol/L}$
 - $c(\text{HCl})$, (41) :

$$c(\text{HCl}) = \frac{V_1 \times c_1}{V}$$

()

, A 1

1

	0 05 mol/L	0 1 mol/L 0 2 mol/L	$c(\text{HCl}) =$ 0 5 mol/L]	$c(\text{HCl}) =$ 1 mol/L]	$c(1/2 \text{H}_2\text{SO}_4) =$ 0 5 mol/L] $c(\text{NaOH}) =$ 0 5 mol/L]	$c(1/2 \text{H}_2\text{SO}_4) =$ 1 mol/L] $c(\text{NaOH}) =$ 1 mol/L]	$c(1/2 \text{Na}_2\text{CO}_3) =$ 1 mol/L]	- $c(\text{KOH}) =$ 0 1 mol/L]
5	+1 38	+1 7	+1 9	+2 3	+2 4	+3 6	+3 3	
6	+1 38	+1 7	+1 9	+2 2	+2 3	+3 4	+3 2	
7	+1 36	+1 6	+1 8	+2 2	+2 2	+3 2	+3 0	
8	+1 33	+1 6	+1 8	+2 1	+2 2	+3 0	+2 8	
9	+1 29	+1 5	+1 7	+2 0	+2 1	+2 7	+2 6	
10	+1 23	+1 5	+1 6	+1 9	+2 0	+2 5	+2 4	+10 8
11	+1 17	+1 4	+1 5	+1 8	+1 8	+2 3	+2 2	+9 6
12	+1 10	+1 3	+1 4	+1 6	+1 7	+2 0	+2 0	+8 5
13	+0 99	+1 1	+1 2	+1 4	+1 5	+1 8	+1 8	+7 4
14	+0 88	+1 0	+1 1	+1 2	+1 3	+1 6	+1 5	+6 5
15	+0 77	+0 9	+0 9	+1 0	+1 1	+1 3	+1 3	+5 2
16	+0 64	+0 7	+0 8	+0 8	+0 9	+1 1	+1 1	+4 2
17	+0 50	+0 6	+0 6	+0 6	+0 7	+0 8	+0 8	+3 1
18	+0 34	+0 4	+0 4	+0 4	+0 5	+0 6	+0 6	+2 1
19	+0 18	+0 2	+0 2	+0 2	+0 2	+0 3	+0 3	+1 0
20	0 00	0 00	0 00	0 0	0 00	0 00	0 0	0 0
21	-0 18	-0 2	-0 2	-0 2	-0 2	-0 3	-0 3	-1 1
22	-0 38	-0 4	-0 4	-0 5	-0 5	-0 6	-0 6	-2 2
23	-0 58	-0 6	-0 7	-0 7	-0 8	-0 9	-0 9	-3 3
24	-0 80	-0 9	-0 9	-1 0	-1 0	-1 2	-1 2	-4 2
25	-1 03	-1 1	-1 1	-1 2	-1 3	-1 5	-1 5	-5 3
26	-1 26	-1 4	-1 4	-1 4	-1 5	-1 8	-1 8	-6 4
27	-1 51	-1 7	-1 7	-1 7	-1 8	-2 1	-2 1	-7 5
28	-1 76	-2 0	-2 0	-2 0	-2 1	-2 4	-2 4	-8 5
29	-2 01	-2 3	-2 3	-2 3	-2 4	-2 8	-2 8	-9 6

1 ()

	0 05 mol/L	0 1 mol/L 0 2 mol/L	$c(\text{HCl}) =$ 0 5 mol/L]	$c(\text{HCl}) =$ 1 mol/L]	$c(1/2 \text{H}_2\text{SO}_4) =$ 0 5 mol/L] $c(\text{NaOH}) =$ 0 5 mol/L]	$c(1/2 \text{H}_2\text{SO}_4) =$ 1 mol/L] $c(\text{NaOH}) =$ 1 mol/L]	$c(1/2 \text{Na}_2\text{CO}_3) =$ 1 mol/L]	- $c(\text{KOH}) =$ 0 1 mol/L]
30	- 2 30	- 2 5	- 2 5	- 2 6	- 2 8			
31	- 2 58	- 2 7	- 2 7	- 2 9	- 3 1			
32	- 2 86	- 3 0	- 3 0	- 3 2	- 3 4			
33	- 3 04	- 3 2	- 3 3	- 3 5	- 3 7			
34	- 3 47	- 3 7	- 3 6	- 3 8	- 4 1			

()

1

1 1 0.1 mg , JJG 1036

1 2 0.1 , JJG 130

1 3 JJG 196—2006

2

2 1 (20 ± 5) ,

2 2 ,

5 mm ,

2 3 m_1

2 4 6 mL/min ~ 8 mL/min , ,

2 5 m_2 ,

2 6 20 V_{20} , (B 1) :

$$V_{20} = (m_2 - m_1) \times K(t) \dots\dots\dots (B 1)$$

:

m_2 — , (g);

m_1 — , (g);

$K(t)$ — $K(t)$, (mL/g) (JJG 196—2006 B)

2 7 3 3 0.005 mL , 3

()

1

，
 $[CR_{0.95}(4)]_r = 0.15\%$ 0.2% (5
)，

2

35.00 mL ~ 40.00 mL C 1 ， 50 mL 2
 (10 g/L)， C 1 ， 80 ，

1

$c(\text{NaOH})/(\text{mol/L})$	$c(\text{HCl})/(\text{mol/L})$
1	1
0.5	0.5
0.1	0.1

 $[c(\text{NaOH})], (C 1) :$

$$c(\text{NaOH}) = \frac{V_1 \times c_1}{V - V_2} \dots\dots\dots (C 1)$$

:

V_1 ——— ， (mL) ;
 c_1 ——— ， (mol/L) ;
 V ——— ， (mL) ;
 V_2 ——— ， (mL)

3

35.00 mL ~ 40.00 mL C 2 ， 50 mL
 2 (10 g/L)， C 2 ，
 80 ，

2

$c(\text{HCl})/(\text{mol/L})$	$c(\text{NaOH})/(\text{mol/L})$
1	1
0.5	0.5
0.1	0.1

 $c(\text{HCl})$], (C 2) :

$$c(\text{HCl}) = \frac{(V_1 - V_2) \times c_1}{V} \dots\dots\dots (\text{C 2})$$

:

 V_1 ——, (mL); V_2 ——, (mL); c_1 ——, (mol/L); V ——, (mL)

4

35.00 mL ~ 40.00 mL C 3, 50 mL
 2 (10 g/L), C 3,
 80 ,

3

$c(1/2 \text{H}_2\text{SO}_4)/(\text{mol/L})$	$c(\text{NaOH})/(\text{mol/L})$
1	1
0.5	0.5
0.1	0.1

 $c(1/2 \text{H}_2\text{SO}_4)$], (C 3) :

$$c(1/2 \text{H}_2\text{SO}_4) = \frac{(V_1 - V_2) \times c_1}{V} \dots\dots\dots (\text{C 3})$$

:

 V_1 ——, (mL); V_2 ——, (mL); c_1 ——, (mol/L); V ——, (mL)

5

35.00 mL ~ 40.00 mL $c(1/2 \text{I}_2) = 0.1 \text{ mol/L}$, , 150 mL
 (15 ~ 20), 5 mL $c(\text{HCl}) = 0.1 \text{ mol/L}$,

$[\text{Na}_2\text{S}_2\text{O}_3] = 0.1 \text{ mol/L}$, 2 mL (10 g/L) ,

$c(\text{HCl}) = 0.1 \text{ mol/L}$, $0.05 \text{ mL} \sim 0.20 \text{ mL}$ $c(\frac{1}{2} \text{I}_2) = 0.1 \text{ mol/L}$ 2 mL
 (10 g/L) , $c(\text{Na}_2\text{S}_2\text{O}_3) = 0.1 \text{ mol/L}$

$[C(Na_2S_2O_3)]$, (C 4) :

$$C(\text{Na}_2\text{S}_2\text{O}_3) = \frac{(V_1 - V_2) \times C_1}{V_3 - V_4}$$

:

V_1 —

V_2 —

c_1 —

V —

8 (

35 00 r

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1

()

2

2 1

()

[c (EDTA)= 0 1 mol/L 0 05 mol/L]

- - 18

(100%)

(c), (D 1) :

$$c = \frac{m \times w \times 1\,000}{(V_1 - V_2) \times M} \dots\dots\dots (D\,1)$$

:

m —

(g);

w —

, % ;

V_1 —

(mL);

V_2 —

(mL);

M —

(g/mol)

2

Š(Šp(wŃ•Dh•c9pJ1'•Q pO...9 ' Gc5iG— 9D`É

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Š(..%— Ń¥••~jZ,,%3— ¥ #^ — ø'DcG•— Ń£ — øS•ĐÉ

Š(Šp(wŃ•Dh•c9pJ1'•Q pO...9 ' Gc5iG— 9D`É

Š(Šp(wŃ•Dh•c9pJ1'•Q pO...9 ' Gc5iG— 9D`É

Š(P.%— Ń¥•—c9pJ1'•Q pO...9 ' Gc5iG— 9D`É

Š(Šp(wŃ•Dh•c9pJ1'•Q pO...9 ' Gc5iG— 9D`É

$$u_{\text{Arel}}(c) = \frac{s(c)}{\sqrt{n} \times c} \dots\dots\dots (D 6)$$

:
 s (c) ————— , (mol/L) ;
 n ————— ;
 c ————— , (mol/L)
 3 2 [

:
 $u(V_1)$ — , (mL);
 $u(V_2)$ — , (mL);
 V_1 — , (mL);
 V_2 — , (mL)

,
 $[u_{\text{crel}}(V_1 - V_2)]$, (D 11) :

$$u_{\text{crel}}(V_1 - V_2) = \frac{\sqrt{u_1^2(V) + u_{2c}^2(V) + u_{3c}^2(V)}}{V_1 - V_2} \dots\dots\dots (D 11)$$

:
 $u_1(V)$ — , (mL);
 $u_{2c}(V)$ — , (mL);
 $u_{3c}(V)$ — , (mL);
 V_1 — , (mL);
 V_2 — , (mL)

3 2 3 1 [1 ()]

(D 12) :

$$u_1(V) = \frac{U}{k} \dots\dots\dots (D 12)$$

:
 U — (F), (mL);
 k — ($k = 2$)

3 2 3 2 [2 ()]

(D 13) :

$$u_{2c}(V) = \sqrt{\frac{a_1}{k_1}^2 + \frac{a_2}{k_2}^2} \dots\dots\dots (D 13)$$

:
 a_1 — , (mL);
 k_1 — $k = \sqrt{6}$;
 a_2 — , (mL);
 k_2 — $k = \sqrt{3}$

3 2 3 3 [3 ()]

(D 14) :

$$u_{3c}(V) = \sqrt{\frac{a \times V_1}{k \times 1\,000}^2 + \frac{a_1}{k}} \dots\dots\dots (D 14)$$

:
 a — , (m — □ ♦

$$k = \frac{1}{\sqrt{3}}, \quad k = \sqrt{3}$$

3 2 4 [

3 5

(D 19) :

$$c_1 = c \pm U(c) \quad k = 2 \quad \dots\dots\dots (D 19)$$

:

a) $c_1 = (0.1000 \pm 0.0002) \text{ mol/L} \quad k = 2$;b) $c_1 = 0.1000 \text{ mol/L} \quad U = 0.0002 \text{ mol/L} \quad k = 2$

4

()

1

,

2

5 L , 4 L , 40 mL (400 g/L) 10 g
 $(\text{Na}_2\text{S} \cdot 9\text{H}_2\text{O})$, 10 min 40 mL “30%” , 24 h ,

()

k ————— ($k = 2$);
 $u_c(V_{20})$ ————— 20 , (mL)

2 5

(F 10) :

$$v_{20} = V_{20} \pm U(V_{20}) \quad k = 2 \quad \dots\dots\dots (F 10)$$

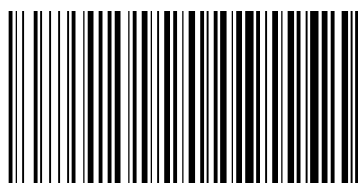
:

$$a) v_{20} = (35.03 \pm 0.01) \text{ mL } k = 2 ;$$

$$b) v_{20} = 35.03 \text{ mL } U = 0.01 \text{ mL } k = 2$$

3

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