

2025

1

1

2

3

4

2

1

2

3

4

3

1

2

4

1

2

3

4

5

5

1

2

6

1

2

3

7

1

2

3

8

1

2

3

4

1

1

2

2

1

2

3

3

1

2

3

4 HCl NaOH

5

4

1

2

3

5

1

EDTA

2

3

EDTA

6

1

2

7

1

Lambert-Beer Law

2

8

1

2

1

1

2

2

1

2

3

4

5

3

1

2

3

4

1

2

3

4

5

6

24

7

8

5

1

2

300

100

100

100

150

		15	4	60
		5	2	10
		2	10	20
		1	10	
		15	4	60
		10	2	20
		1	20	
		10	4	40
		2	15	
		2	15	30
		1	15	

1                    0.5 mol·L<sup>-1</sup>    NaOH

A    B

C    D

A

2

0.1%

A    0.1 g                                    B    0.2 g

C    0.2 g                                    D    0.4 g

C

3

BMI

A  18.5                                    B  24

C  25                                      D  28

D

1

2

3

90 mmHg



1

“

”

“ ”

“ ”

“ ”

2

1 0.980 1.84  
g·mL<sup>-1</sup> 1000 mL 0.1 mol/L

$$c_{\text{浓硫酸}} = \frac{1000\rho\omega}{M} = \frac{1000 \times 1.84 \times 0.980}{98} = 18.4 \text{ mol/L}$$

$$c_{\text{浓硫酸}} V_{\text{浓硫酸}} = c_{\text{稀硫酸}} V_{\text{稀硫酸}}$$

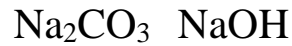
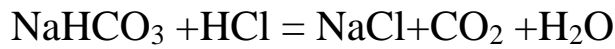
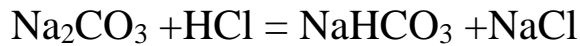
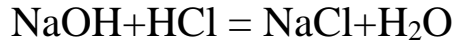
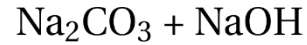
$$18.4 \times V_{\text{浓硫酸}} = 0.1 \times 1$$

$$V_{\text{浓硫酸}} = 0.0054 \text{ L}$$

2 1.2000 g c(HCl)=0.5000  
mol/L 14.50 mL  
5.00 mL

$$V_1 = 14.50 \text{ mL}$$

$$V_2 = 5.00 \text{ mL} \quad V_1 > V_2 ,$$



$$w_{\text{Na}_2\text{CO}_3} = \frac{cV_2 \times 106.0}{m \times 1000} = \frac{0.5000 \times 5.00 \times 106.0}{1.2000 \times 1000} \times 100\% = 22.1\%$$

$$w_{\text{NaOH}} = \frac{c(V_1 - V_2) \times 40.00}{m \times 1000} = \frac{0.5000 \times (14.50 - 5.00) \times 40.00}{1.2000} \times 100\% = 15.83\%$$

~~100% =~~ \_\_\_\_\_

	3	2	30 g	20
g		10 g		
B2				

			B2 0.07 mg	350
kcal		B2 0.1 mg	362 kcal	
	B2 0.15 mg		172 kcal	

B2

$$30 \times 0.07/100 + 20 \times 0.1/100 + 10 \times 0.15/100 = 0.056(\text{mg})$$

$$30 \times 350/100 + 20 \times 362/100 + 10 \times 172/100 = 194.6(\text{kcal})$$

1

1989

1997 2007 2016 2022

1 2022 8

2

1 8

2

2022

1 1

300~500 g

50~150 g

5 g