



HJ 666-2013

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Water quality-Determination of ammonium nitrogen by flow injection
analysis (FIA) and Salicylic acid spectrophotometry

2013-10-25

2014-01-01

| | | |
|----|-------|----|
|  | ..... | II |
| 1 | ..... | 1 |
| 2 | ..... | 1 |
| 3 | ..... | 1 |
| 4 | ..... | 1 |
| 5 | ..... | 2 |
| 6 | ..... | 2 |
| 7 | ..... | 3 |
| 8 | ..... | 3 |
| 9 | ..... | 3 |
| 10 | ..... | 4 |
| 11 | ..... | 4 |
| 12 | ..... | 5 |

-

2013 10 25
2014 1 1

1

-

-

10mm

0.01mg/L

N

0.04mg/L~5.00mg/L

2

HJ 536

HJ/T 91

HJ/T 164

3

3.1

3.2

60

660nm

1



1-

2-

3-

4-

60

5-

10mm 660nm

R1-

5. 10

R2-

5. 11

R3-

5. 12

S-

C-

W

1

-

4

4.1

5. 15

4.2

500mg/L

35mg/L

HJ 536

900 mg/L 1000 mg/L 100000mg/L

4.3 pH>12 pH<1 pH

5

10M ·cm

5.17

5.1 $\rho(\text{H}_2\text{SO}_4)=1.84\text{g/ml}$

5.2 NH_4Cl $105^\circ\text{C}\pm 5^\circ\text{C}$

5.3 NaOH

5.4 $\text{C}_{10}\text{H}_{14}\text{N}_2\text{Na}_2\text{O}_8\cdot 2\text{H}_2\text{O}$

5.5 $\text{Na}_2\text{HPO}_4\cdot 7\text{H}_2\text{O}$

5.6 $\text{NaC}_7\text{H}_5\text{O}_3$

5.7 $\text{Na}_2[\text{Fe}(\text{CN})_5\text{NO}]\cdot 2\text{H}_2\text{O}$

5.8 $\text{Na}_2\text{S}_2\text{O}_3$

5.9 NaOCl 5.25%

HJ536 A

5.10

30g 5.3 25g 5.4 67g 5.5
800ml 1000ml 1

5.11

144g 5.6 3.5g 5.7 800ml
1000ml 4 1

5.12

60ml 5.9 1000ml

5.13 $\rho(\text{N})=1000\text{mg/L}$

3.819g 5.2 1000ml

4 6

5.14 $\rho(\text{N})=50.0\text{mg/L}$

5.00ml 5.13 100ml

4 1

5.15 $\rho=3500\text{mg/L}$

3.5g 5.8 1000ml

5.16 0.45 μm

5.17 99.99%

6

6.1

| | | | | | | | |
|-------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| | | | | 10mm | | | |
| 6.2 | 0.0001g | | | | | | |
| 6.3 | 4000r/min | | | | | | |
| 6.4 | 500ml | | | | | | |
| 6.5 | 40KHz | | | | | | |
| 6.6 | | | | | | | |
| 7 | | | | | | | |
| 7.1 | | | | | | | |
| | | | 5.1 | pH<2 5°C | | | |
| | 7d | pH | | | | | |
| 7.2 | | | | | | | |
| | | | | 5.16 | | | |
| | | | | HJ536 | | | |
| 8 | | | | | | | |
| 8.1 | | | | | | | |
| | | | | 15min | | | |
| | | 8.2~8.4 | | | | | |
| 8.2 | | | | | | | |
| 8.2.1 | | | | | | | |
| | | 5.14 | 100ml | 6 | | | |
| | | 0.00 mg/L | 0.05 mg/L | 0.25 mg/L | 0.50 mg/L | 2.50 mg/L | 5.00mg/L |
| 8.2.2 | | | | | | | |
| | | 8.2.1 | | | | | |
| | | | | | | | N mg/L |
| 8.3 | | | | | | | |
| | | | | | | | 7.2 |
| 8.4 | | | | | | | |
| | | 8.3 | | | | | |
| 9 | | | | | | | |
| 9.1 | | | | | | | |
| | | N | mg/L | | | | 1 |

$$\rho = \frac{y-a}{b} \times f \quad 1$$

—
y—
a—
b—
f—

mg/L

9.2

1.00mg/L

1.00mg/L

10

10.1

6

0.02mg/L 0.54mg/L 2.74mg/L

1.2%~8.6% 0.3%~1.0% 0.2%~0.7%

4.6% 1.5% 1.7%

0.003mg/L 0.010mg/L 0.037mg/L

0.004mg/L 0.025mg/L 0.134mg/L

10.2

6

0.54mg/L±0.03mg/L 1.33±0.03mg/L 2.74±0.12mg/L

0.2%~3.2% 0.0%~3.1% 0.7%~2.6%

1.6%±2.8% 1.7%±2.6% 1.7%±1.6%

6

0.05 mg/L ~0.45 mg/L 0.44 mg/L ~1.70 mg/L 1.08 mg/L

~2.20 mg/L 3

104%~114% 98%~105% 93.8%~104%

108%±7.8%

101%±4.8% 98.9%±7.2%

11

11.1

2

11.2

γ 0.995

10

5%

11.3

10%
0.10mg/L

10

20%

| | | |
|--------------|----------|------------|
| 0.10~1.0mg/L | 15% | >1.0mg/L |
| 10% | | |
| 11.4 | | |
| | 10% | 10 |
| | 80%~120% | |
| 12 | | |
| 12.1 | | 20± 5 |
| | ± 2 | |
| 12.2 | | |
| 5.25% | | 30% |
| | 2.62% | |
| | | 1min 30min |
| 12.3 | | |
| 12.4 | | |
| 12.5 | | |

