



2019 07

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70%

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700.5

	CAS 7664-39-3	HF 20 -83.1 19.52 (=1) 1.15		LD ₅₀ LC ₅₀ 1044 g/ ³ ()
	CAS 7697-37-2	HNO ₃ 1.503(25) 1.41(20)(68%) -41.59 83 120.5 (68%)		
	CAS 1310-73-2	NaOH 318.4 1390 =1 2.12		
	-	100 g/c ³ 0.9-1.2 23		LD ₅₀ 1000 g/ g
[C ₇ H ₁₂ O]	CAS 141-32-2	128.17 -64.6 145.7 37 (=1)0.89 1.33K a (35.5)		LD ₅₀ 900 g/ g() LC ₅₀ 14305 g/ ³ 4 ()
[C ₄ H ₆ O ₂]	CAS 108-05-4	86.09 -93.2 71.8-73 -8 (=1)0.93 13.3K a(21.5)		LD ₅₀ 2900 g/ g() LC ₅₀ 14080 g/ ³ 4 ()
	CAS 7440-59-7	He 4.00 -272.1 -268.9 (=1)0.15 -271 =1 0.14		
	CAS 7727-37-9	N ₂ 28.013 -211.4 -195.8 1.25g/L 0 1		

	CAS 7782-39-0	D ₂ 4.032 -254.42 -249.5 (=1)0.139	75% 5%	
	CAS 7440-37-1	A 39.95 -189.2 -185.7 (=1)1.40(-186) (=1)1.38		
	CAS 124-38-9	CO ₂ 44.01 -56.5 171.3g/c ³ 0 (=1)1.977		

1-3

1	/	8	3	11
2		32	0	32
3	DWCDAT-50/3000	32	0	32
4	LIS-G+NCTM+CM5	32	0	32
5	/			

20		/	3	0	3
21		/	15	0	15
22		/	4	0	4
23		/	1	1	2
24	LED	/	1	0	1
25		YP-JIZHONG-ZTT	2	1	3
26		/	4	0	4
27		/	5	0	5
28		HC-F500GSG-S 500RT/	5	0	5
29		/	3	0	3
30		300 ³ /h	5	0	5
31		/	3	0	3
32	ABB	/	4	0	4
33		/	1	0	1
34		/	110	0	110
35		/	46	0	46
36		/	1	0	1
37		/	1	0	1
38		/	1	0	1
39		/	1	0	1
40		3 /h	2	0	2
41		/	2	0	2
42	UPS	/	1	0	1
43		/	1	0	1
44		/	2	0	2
45	DDC	/	1	0	1
46		/	2	0	2
47		NTH408-70A	3	0	3
48		/	2	0	2
49		/	1	0	1
50		/	1	0	1
51		/	1	0	1
52		PK2880	3	0	3
53		OTDR8000	6	0	6
54		PK2300	6	0	6
55		OTDR8000I	1	0	1
56		CD500	3	0	3

57		PK2311	3	1	4
58		/	16	0	16
59		5 ³ / i	3	0	3
60		/	1	0	1
61		/	22	0	22
62		DV3TLVTJ0	13	0	13
63		/	1	0	1
64	OTDR	MT9083B2	1	0	1
65		50 ³ 10 ³ 5 ³	3	0	3
66		300 ² /	3	0	3
67		/	8	0	8
68		/	8	0	8
69		/	20	0	20
70		/	5	0	5
71		/	5	0	5
72		/	4	0	4
73		/	1	0	1
74		/	8	0	8
75		/	13	0	13
76		/	23	0	23
77		FTP1000-0501600S- LCF	4	3	7
78		/	2	0	2
79		/	16	0	16
80		/	18	0	18
81		/	6	0	6
82		/	10	0	10
83		/	17	0	17
84		/	0	3	3
85		PT-2500	0	3	3
86	f e g h a i	/	0	2	2
87	fibe a a i e	2300AG	0	3	3
88	UV		0	1	1
89		/	0	3	3
90		/	0	3	3
91			0	6	6
92		/	0	3	3

93		TF-3000	0	24	24
94	DDC	/	0	1	1
95		/	0	1	1
96		/	0	1	1
97	UV		0	1	1
98		/	0	2	2

2015 10

1000

2016 12

[2016]112

2017 8 27

([2017]5

2017 11 16

[2017]15

15000

62961 ²

21424.21 ²

32

3

187.5 /

400 /

R5 280 /

(ULB125)70 /

ULB80 50 /

2018 11 14

6

[2018]82

682

2019 5

(2011) 2013

2 16 < (2011)>

28

<

2012 > ([2013]183)

28

(2012)

2012

2012

2018 74

15

1-4

1			3600		

3600

5

2017 1

24

NO₂

24

PM₁₀

24

CO 24

PM_{2.5}24

O₃

8

PM_{2.5}

GB096-2008 3

GB3838-2002

1

HF

FQ1

15

FQ3 42

$+$

4

3

FQ3 42

1	2011	2011
2	2012	2012
3	2012	2012

2012
2013 9
2012
2020 0.4 2013 183
2020
2 2018
2007
[C3832]
2020
VOC
2018
2019 2020

3	
VOC VOC VOC VOC VOC VOC 2015 10% 2020	
2020 2018 VOC 45 VOC 2019	

ULB80 50

/

1-7

32					7200h
		2000	1812.5	-187.5	
		0	400	+400	
		2000	2212.5	212.5	

1-8 10

	5 1	dB	1550 0.10 1625 0.40
	1310	dB/	1310 0.32
	1550	dB/	1550 0.18
	1310		8.8 0.4
			1300 1324
	22		1260
			125 1.0
			245 7
		%	1.0
	/		0.5
	/		10

	7.5 200	dB	1550 0.10
	5 10	dB	1550 0.05
	1550	dB/	1550 0.23
	1625	dB/	1625 0.25
	1550		8.4 0.6
			1530
			125 1.0
		%	0.8
	/		0.5

	5 200	dB	1550 0.10
	2.5 10	dB	1550 0.02
	1550	dB/	1550 0.35
	1625	dB/	1625 0.38
	1550		6.4 0.6
			1530
			80 1.0
		%	0.8
	/		0.5

1

3792.5 /a

2

1788 /a

101.3 /a

+

GB8978-1996

1840 /a

GB18918-2002

A

3

3 2500KVA

4

5 1.06

^{3/} i

4 1

4 8 g

2 1

25.46 ^{3/} i

15.78 ^{3/} i

9.68 ^{3/} i

3.16 ^{3/} i

5

5

1900 /h

1200 /h

24 /h

5	R22	11021
7329	3692	1466
6		
		1-11

		52.64 ³	
		15.81 ³	
		10.53 ³	
		50L	
		10.53 ³	

		1-12	
	3	32 ³ 2000 / 187.5 400	
			/
		1690 ²	
		920 ²	
		60.16 ²	
		52.64 ³ 1 15.81 ³ 10.53 ³ 50L	
		10.53 ³	
		2500 KVA 3 3600 /	
		3792.5 /a	

			46	
			3729.3 /a	+
			5 1.06 ^{3/} i 4 8 g	
			25.46 ^{3/} i 15.78 ^{3/} i 9.68 ^{3/} i	3.16 ^{3/} i
			5 1900 /h 1200 /h	24 /h
			5 7329 3692	11021 1466
			2 1 /h	3 /h 0.6 /h
			2	
			+42	
			2	
			1 9000 ^{3/} h	
			48 /d	
			6 ²	
			20 ²	

20

0.13%

1-13

		1	/		
		1	/		
		2	/		
	+42	2	/		
		1	8		

		/	12		
		/	/		
		/	/		
	/	/	20	/	

188

1

2

3

2015 10

1000 2016 12

[2016]112 2017 8 27

([2017]5)

2017 11 16

[2017]15 1-14

16		1000	1000	[2016]112	[2017]5
16		1000	1000	[2017]15	

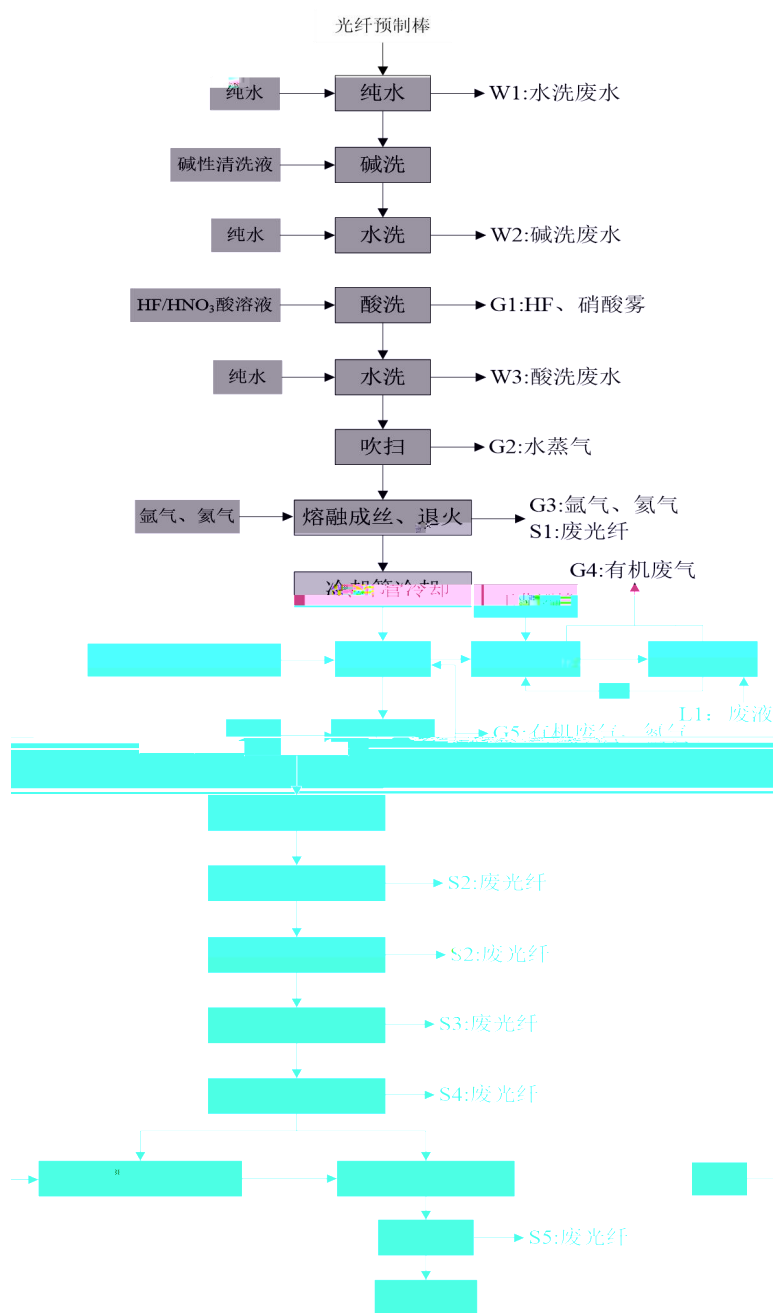
1-15

		1000	
		1000	
		-	
		1690 ²	
		920 ²	
		60.16 ²	
		52.64 ³ 1 15.81 ³	
		10.53 ³	
		50L	
		10.53 ³	
		301446 /a	
		15613.76 /a	
		5 1.06 ³ / i 4 8 g	
		46	
		5	R22
		5	-
		3 /h 2	50%
		2500 KVA 3 3600 /	
		/	
		+15	
		2	
		+42 2	
		48 /d	
		4 ³	
		25dB(A)	
		20 ²	
		6 ²	

	HNO ₃							
4		30%NaOH	0.6L	0.6L	1.			
5		30%-50% 30%-50% 5%-10% 1%-5%	442 /a	442 /a	884 /a	8	1 ³	/
6		96%	0.62 /a	0.62 /a	1.12 /a	0.2		/
7			0.1 /a	0.1 /a	0.2 /a	0.2		/
8		/	67	67	134	/	/	/
9		/	67	67	134	/	/	/
10		/	1965 /a	1965 /a	3930 /a	40	52.64 ³	/
11		/	542 /a	542 /a	1084 /a	6	15.81 ³	/
12		/	55951 ³ / a	55951 ³ / a	111902 ³ / a	5000 ³	5000 ³	
13		/	500 ³ /a	500 ³ /a	1000 ³ /a	0.013 ⁴	50L	/
14		/	159.7 /a	159.7 /a	319.4 /a	10.53	10.53 ³	/

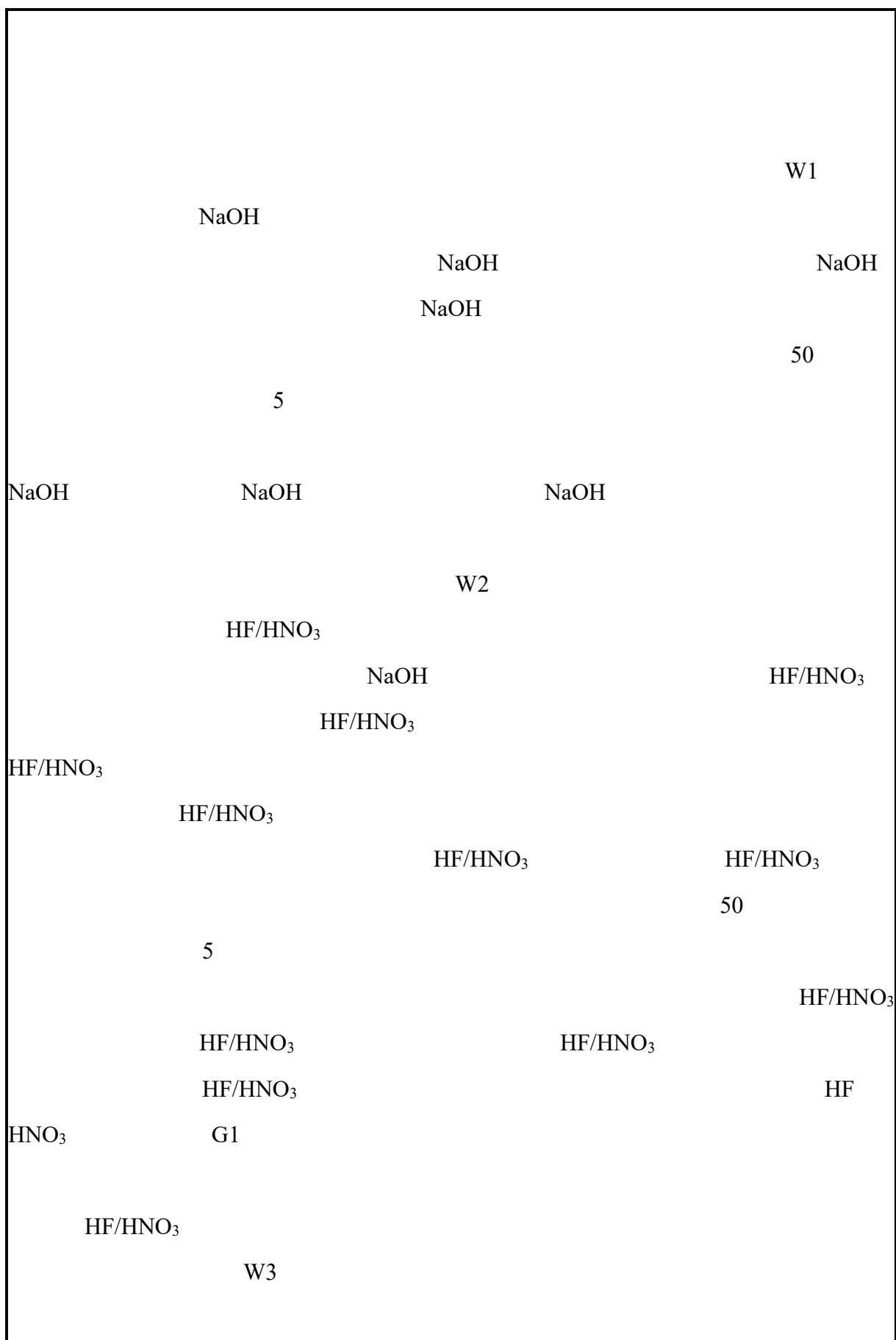
5		/	47	0	47
6		/	16	16	32
7		/	5	0	5
8		/	16	16	32
9		/	16	0	16
10	LED	/	16	16	32
11	LED	/	16	16	32
12		/	8	8	8
13		/	0	23	23
14	/	/	1	1	2
15		/	0	10	10
16		/	1	1	2
17		/	0	1	1
18		/	0	8	8
19		/	0	1	1
20		/	0	3	3
21		/	0	15	15
22		/	0	4	4
23		/	0	1	1
24	LED	/	0	1	1
25		/	1	1	2
26		/	0	4	4
27		/	3	2	5
28		HC-F500GSG-S 500RT/	3	2	5
29		/	3	0	3
30		300 ³ /h	3	2	5
31		/	3	0	3
32	ABB	/	2	2	4
33		/	1	0	1
34		/	60	50	110
35		/	38	30	68
36		/	0	1	1
37		/	0	1	1
38		/	0	1	1
39		/	0	1	1
40		3 /h	1	1	2
41		/	0	2	2
42	UPS	/	0	1	1
43		/	0	1	1
44		/	1	1	2
45	DDC	/	0	1	1

46		/	1	1	2
47		NTH408-70A	2	1	3
48		/	1	1	2
49		/	0	1	1
50		/	0	1	1
51		/	0	1	1
52		PK2800	0	3	3
53	OTDR8000	OTDR8000	3	3	6
54	PK2300	PK2300-2302-MFD	3	3	6
55		OTDR8000I	1	0	1
56		CD500	3	0	3
57		PK2311	3	0	3
58		/	16	0	16
59		5 ³ / i	3	0	3
60		/	1	0	1
61		/	22	0	22
62		DV3TLVTJ0	13	0	13
63		/	1	0	1
64	OTDR	MT9083B2	1	0	1
65		50 ³ 10 ³ 5 ³	3	0	3
66		300 ² /	3	0	3
67		/	8	0	8
68		/	8	0	8
69		/	20	0	20
70		/	5	0	5
71		/	5	0	5
72		/	4	0	4
73		/	1	0	1
74		/	8	0	8
75		/	13	0	13
76		/	23	0	23
77		/	4	0	4
78		/	2	0	2
79		/	16	0	16
80		/	18	0	18
81		/	6	0	6
82		/	10	0	10
83		/	17	0	17



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+



G2

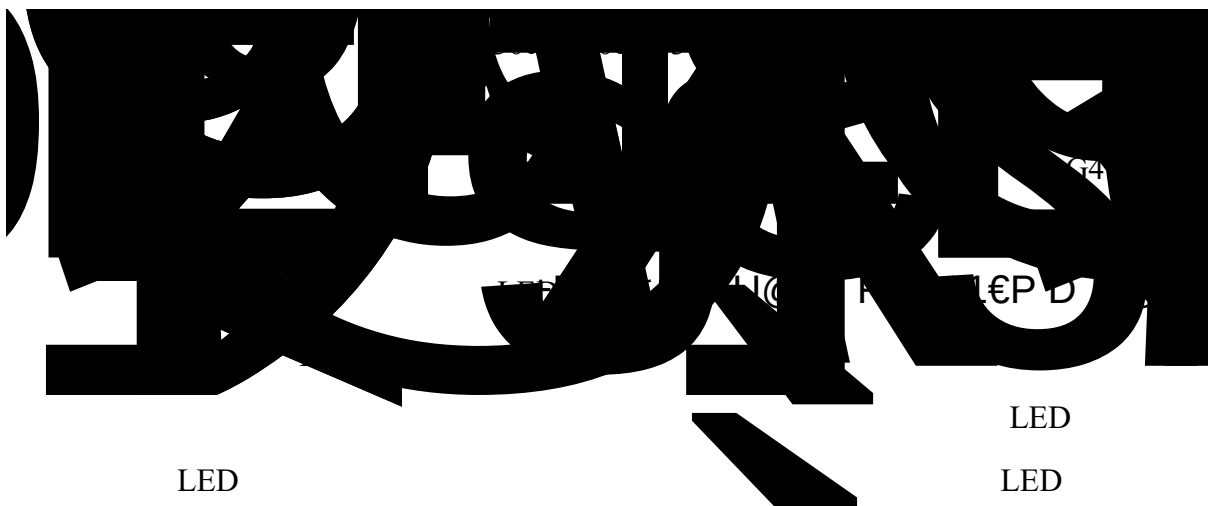
2200

S1

G3

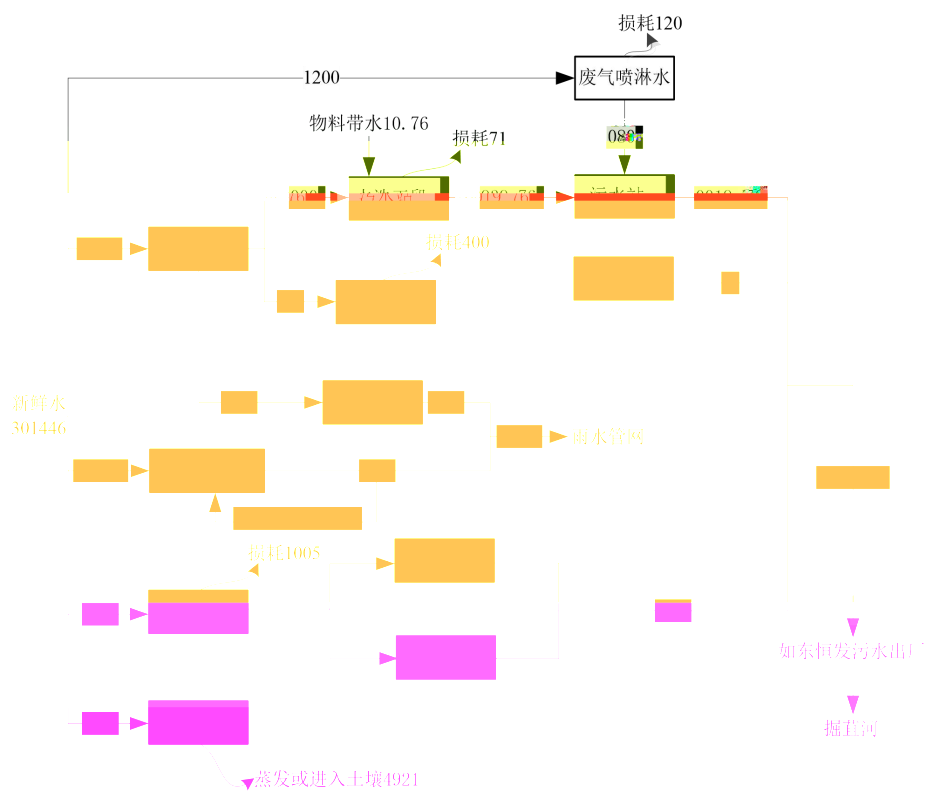
52-55

CO₂



OH-

S5



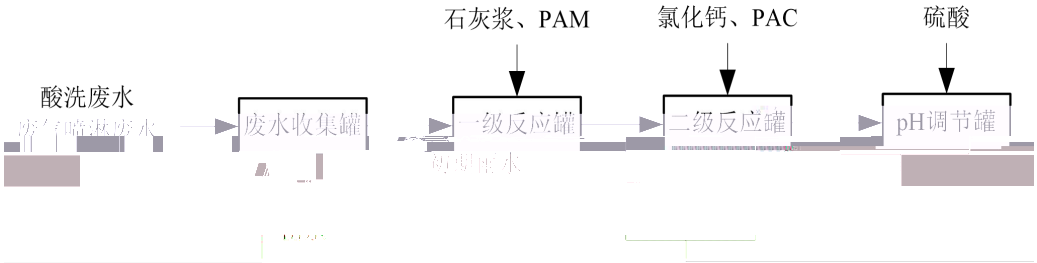
HF

FQ1 15

VOC

FQ3

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GB8978-1996



2016

2016

RO

GB12348-2008 3

2017 8 27

([2017]5

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2017

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2017

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2017

6

21

6

H	7.21	7.14	7.23	6.9	/	
	226	243	238	236	g/L	
	52	48	54	51	g/L	
	0.206	0.218	0.221	0.215	g/L	
	3.88	3.91	3.79	3.86	g/L	
	1.18	1.20	1.38	1.25	g/L	
	32	32	35	37	/	g/L
	18	17	15	16	/	g/L
	4.345	4.195	4.146	4.229	/	g/L
	0.118	0.118	0.118	0.118	/	g/L
	0.054	0.055	0.050	0.053	/	g/L
	36	31	33	33	g/L	
	12	11	13	12	g/L	

H	7.25	7.24	6.9	/	
	218	222	222		

236 g/L 51 g/L 0.220 g/L 3.86 g/L 1.25 g/L

GB8978-1996 4

N1	1	9:01	46.6	22:11	43.9	9:32	46.4	22:15	43.0
N2	1	9:15	46.0	22:26	44.8	9:41	46.3	22:24	42.9
N3	1	9:30	47.2	22:42	46.2	9:53	45.1	22:36	43.7
N4	1	9:47	48.0	22:58	43.6	10:09	48.7	22:50	43.4

GB12348-2008 3

4

2016

2016

RO

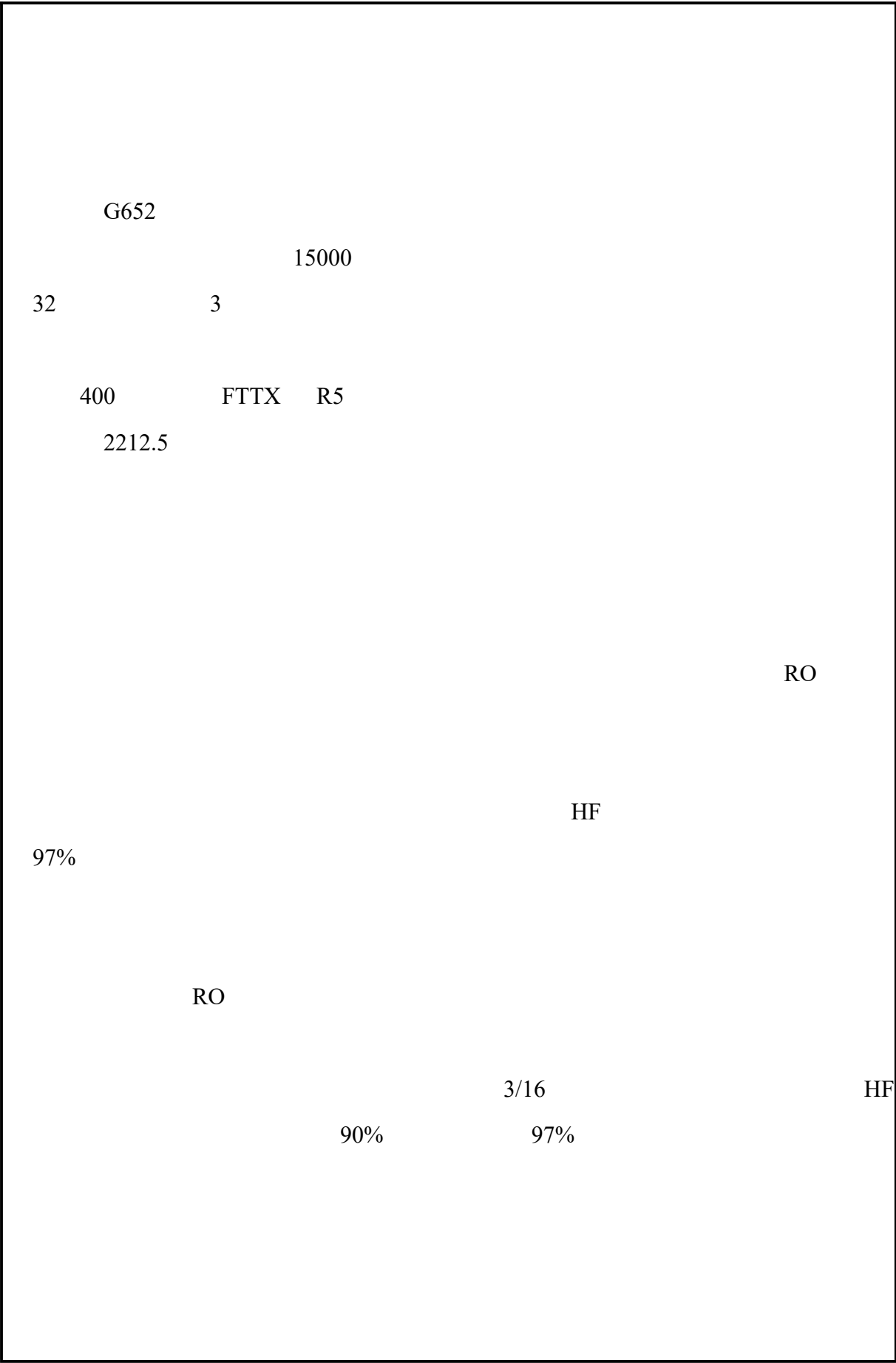
1000

[2016]112

[2016]112

1-22

	HF	0.191	0.191	0.382
		0.081	0.081	0.162
		0.078	0.078	0.156
		0.078	0.078	0.156
	VOC	1.083	1.083	2.166
		7723.88	7889.88	15613.76
	COD	1.853	0.977	2.83
	SS	1.037	0.676	1.713
		0.086	0.086	0.172
		0.092	0.1008	0.1928
	TP	0.011	0.012	0.023
		0	0.072	0.072



		HF	0.191	0.191	0.279	0.103
			0.081	0.081	0.015	0.147
			0.078	0.078	0.015	0.141
			0.078	0.078	0.015	0.141
		VOC	1.083	1.083	0.203	1.963
			9783.88	9709.88	1820.60	17673.16
		COD	0.7827	0.7768	0.146	1.414
		SS	0.9393	0.9321	0.175	1.697
			0.0020	0.0019	0.0004	0.004
			3.7277	3.6995	0.694	6.733
			2640	2880	0	5520
		COD	0.792	1.008	0	1.8
		SS	0.660	0.576	0	1.236
			0.092	0.1008	0	0.193
		TP	0.011	0.012	0	0.023
			0	0.072	0	0.072
			0	0	0	/
			0	0	0	/

*

32 16 19

121 25 40

121 54 30

31 41 06

		39.1
		-10.6
		14.9
		ESE NW
	/	4.1
	/	20
		1044.7
		1533.4
		236.8

1

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25

1976

60500

2665

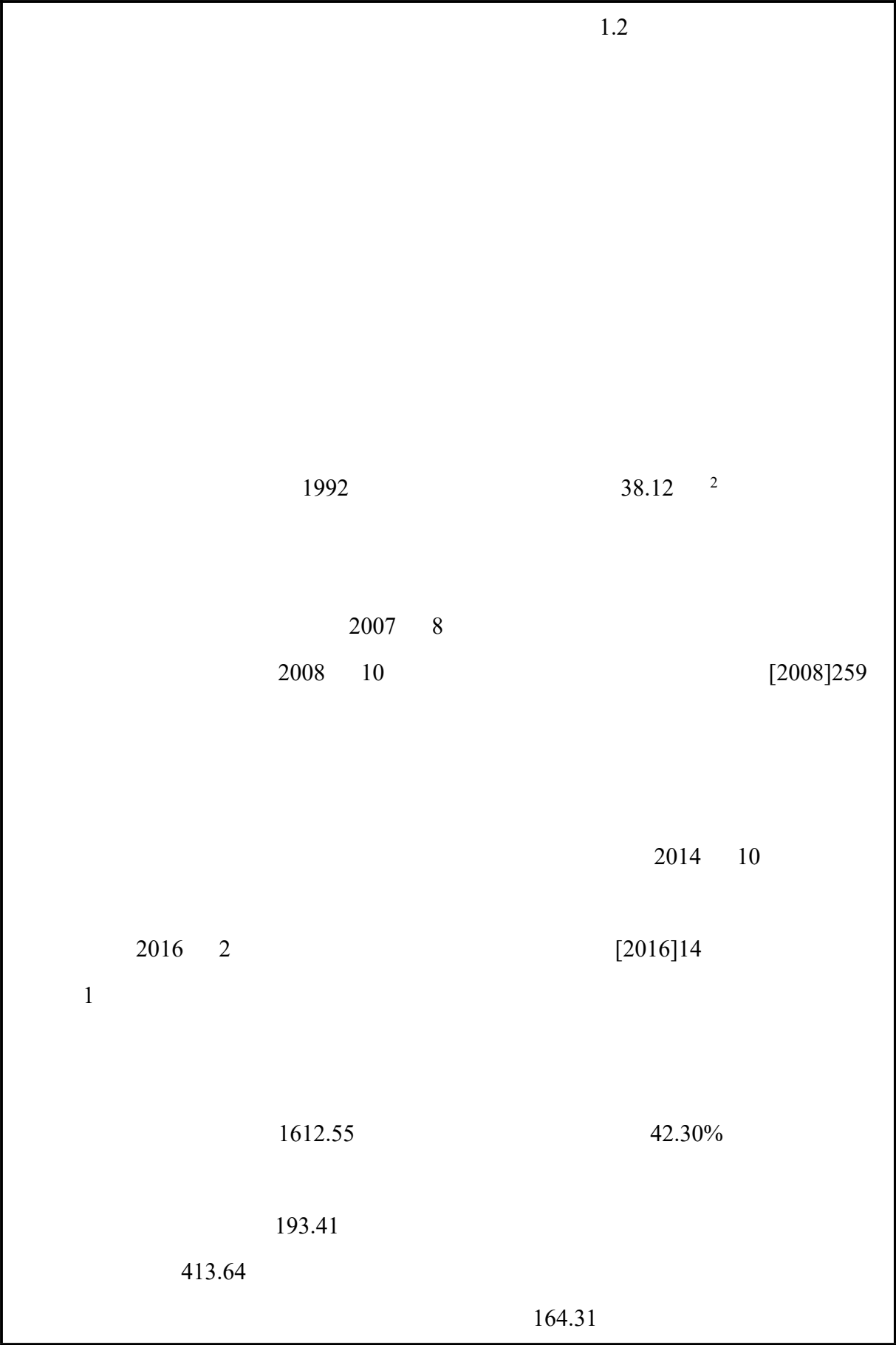
36863

30200

28011

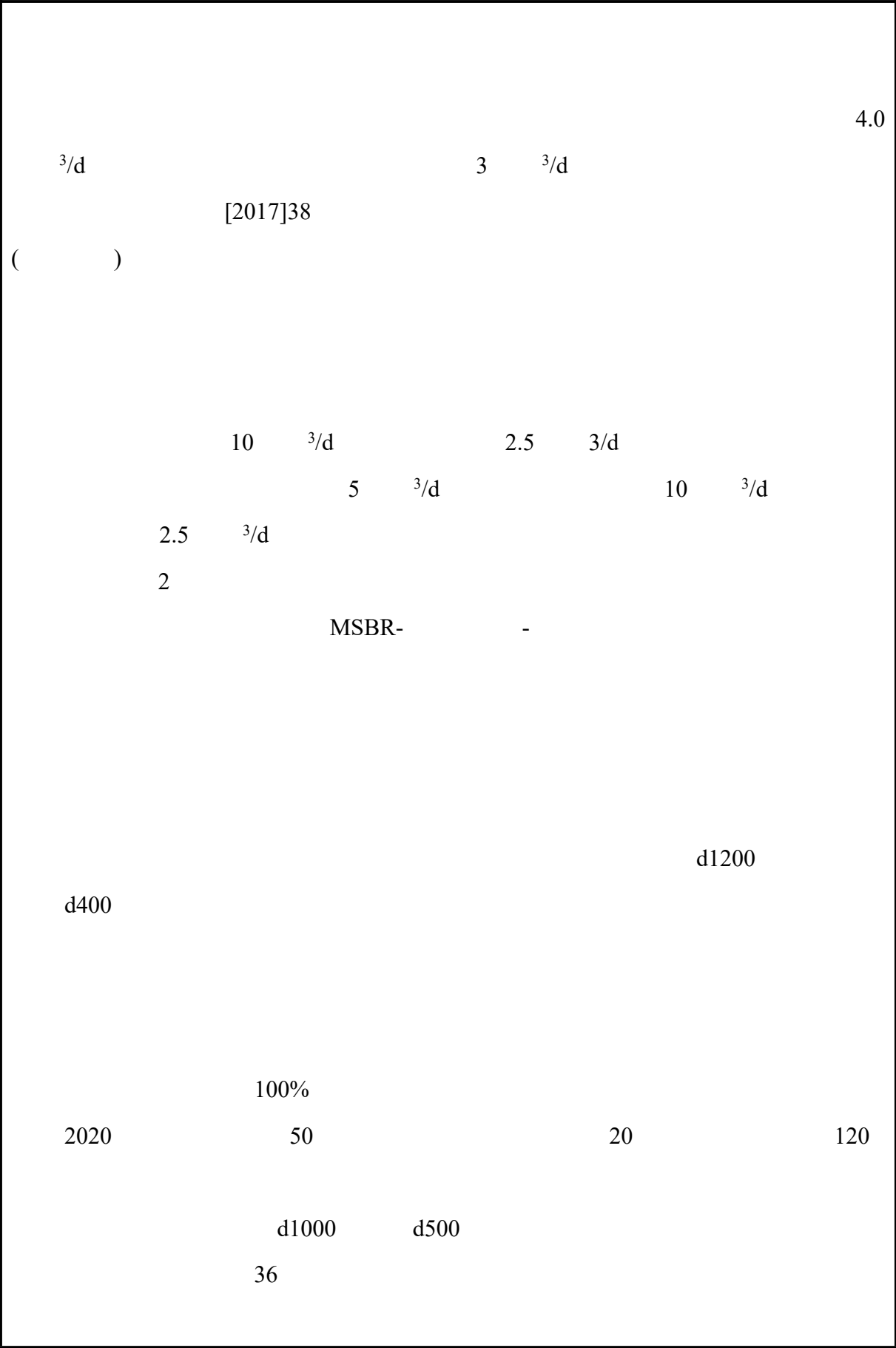
2

250 380



115.39

725.8



[illegible]

		g/ ³	g/ ³		
SO₂		30	60	0.00	
	24 98	23	150	0.00	
NO₂		21	40	0.00	
	24 98	58	80	0.00	
PM₁₀		60	70	0.00	
	24 95	79	150	0.00	
PM₂.₅		39	35	0.11	
	24 95	53	75	0.00	
O₃	8 90	118	160	0.00	
CO	24 95	627	4000	0.00	

PM₁₀ SO₂ NO₂ CO O₃

GB3095-2012 PM₂.₅

GB3095-2012 0.11

GB3095-2012

2017 9.28-9.29

	TVOC	0.0212-0.0270	0.6	-	-	-	-
		0.0009 0.0010	0.02	0	-	-	-

2016 7 27 2016 7 29
CODc TP
GB3838-2002 2017 9 27
3-3

1500 N32 21 31 E121 11 36	H	7.41-7.47	
		16	g/L
		0.78	g/L
	TP	0.16	g/L
		0.03	g/L
		0.165	g/L
1000 N32 22 52 E121 11 12	H	7.27-7.39	
		17	g/L
		0.744	g/L
	TP	0.16	g/L
		0.02	g/L
		0.16	g/L

GB3838-2002

GB096-2008

2019 7 27 2019 7 28

N ₁	1	54.3	48.6
N ₂	1	53.6	48.4
N ₃	1	54.4	49.6
N ₄	1	53.2	48.5
		65	55
N ₁	1	53.8	48.9
N ₂	1	53.6	48.3
N ₃	1	54.3	47.8
N ₄	1	53.8	47.6
		65	55

GB3096-2008 3

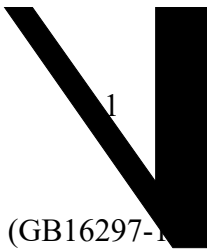
3-5

	327047	3580988				NE	1100
	327820	3581202				NE	1800
	327928	3581392				NE	1900
	328062	3581182				NE	2100
	327547	3582005				NE	2100
	328396	3580318				E	2200
	328392	3580544				E	2200
	328328	3579620				SE	1700
	327320	3579409				SE	1500
	327661	3579525				SE	1600
	328116	3579544				SE	1900
	327614	3578645				SE	2200
	328013	3578917				SE	2400
	326474	3578966				S	1400
	325976	3578122				S	2200
	324212	3579613				WS	2300
	324403	3580196				W	1400
-	326758	3576537				S	3600

			E	3600	3680	-123	-1	E	3976	3965	-12	
			W	829	-807	-178	0	W	905	-847	-328	/
			E	12	12	0	0	E	15	15	0	
			S	75	-75	0	1	S	236	14	-234	/

HF			GB3095-2012 TJ36-79	
</				

	10 g/ ³							
	C =0.470 C -3.595							
	[3]							
	GBZ2.1-2007							
	10 g/ ³							
	C =0.47 C -3.595							



(GB16297-1996) 2

GB/T3840-91

VOC

DB12/524-2014

GB14554-93

4-4

	9.0	15	0.10		0.02	(GB16297-1996)
	240	15	0.77		0.12	2
	/	/	/		25	GB/T3840-91
	/	42	4.38		0.4	
	/	42	4.38		0.4	
VOC	80	42	23.84		2.0	DB12/524-2014
	/	/	/		20	GB14554-93

[1] (GB/T 3840-91)

$Q=C \cdot R \cdot K_e$ Q $g/h \cdot C$

$g/ \cdot ^3 \cdot R$

GB/T 3840-91 4 40

58 50 90 K_e 0.5 1.5 0.85

[2] (GB16297-1996)7.3

[3]

GB8978-1996 4

GB/T31962-2015 1 B

(GB18918 2002) A

COD 40 $g>$

4-5

	6 9	6 9
	300	50
	150	10
	45	5
	20	/
	8	0.5

GB12348-2008 3

4-6

3	65	55	

GB18599-2001

GB18597-2001

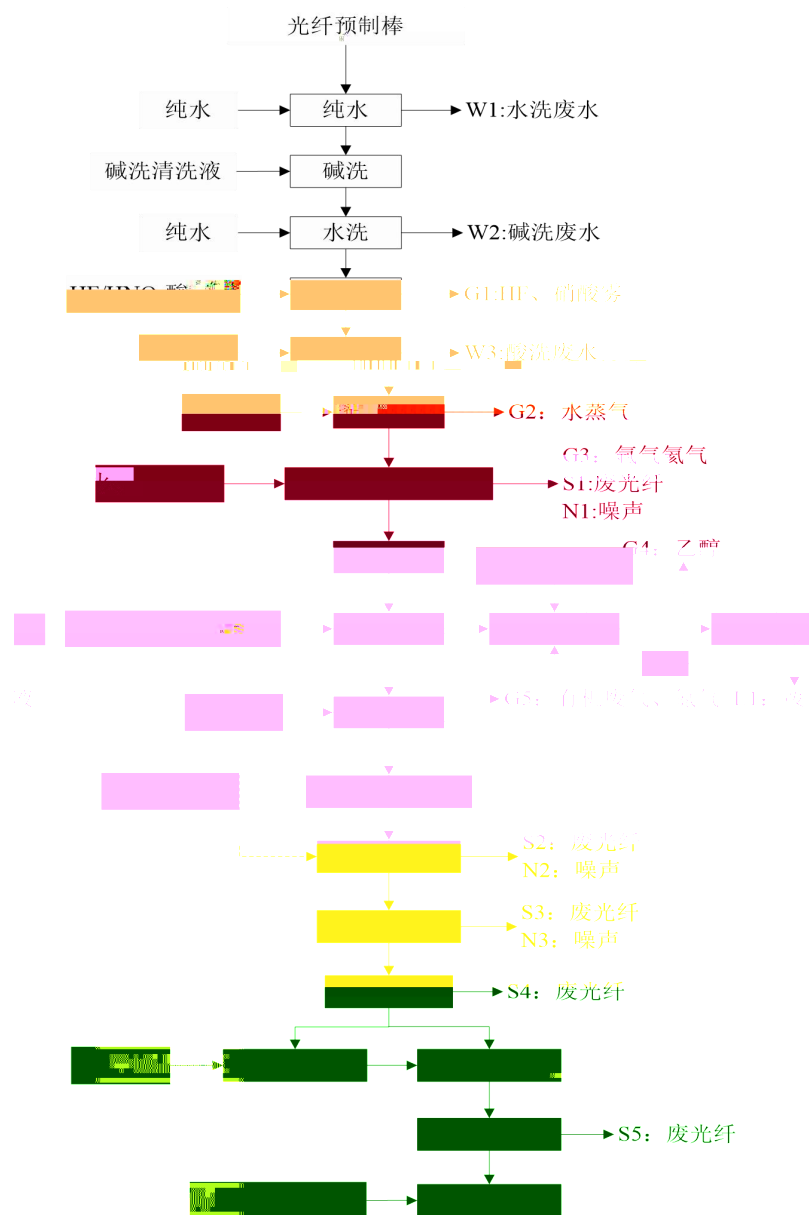
HJ2025-2012

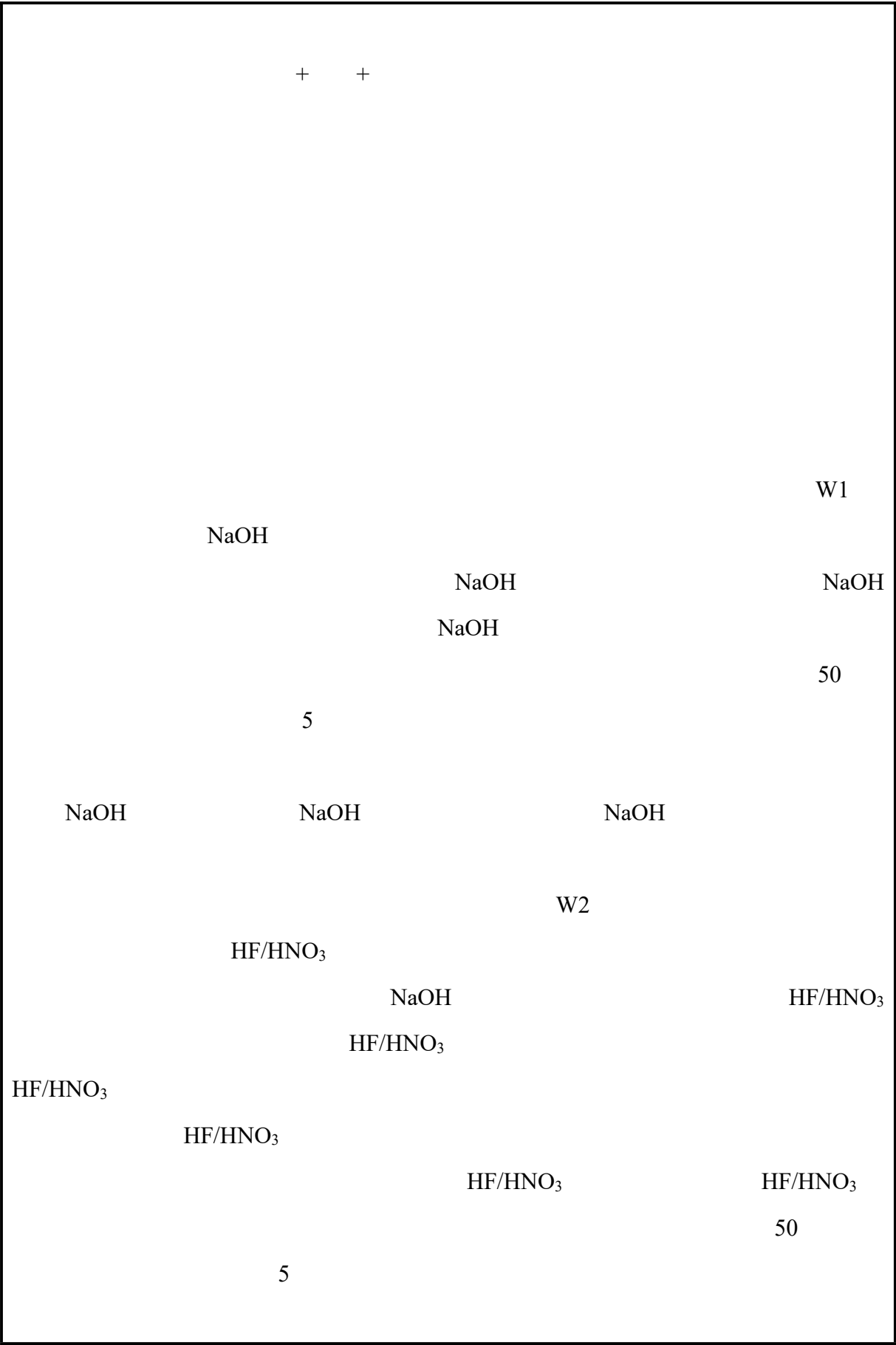
4-7

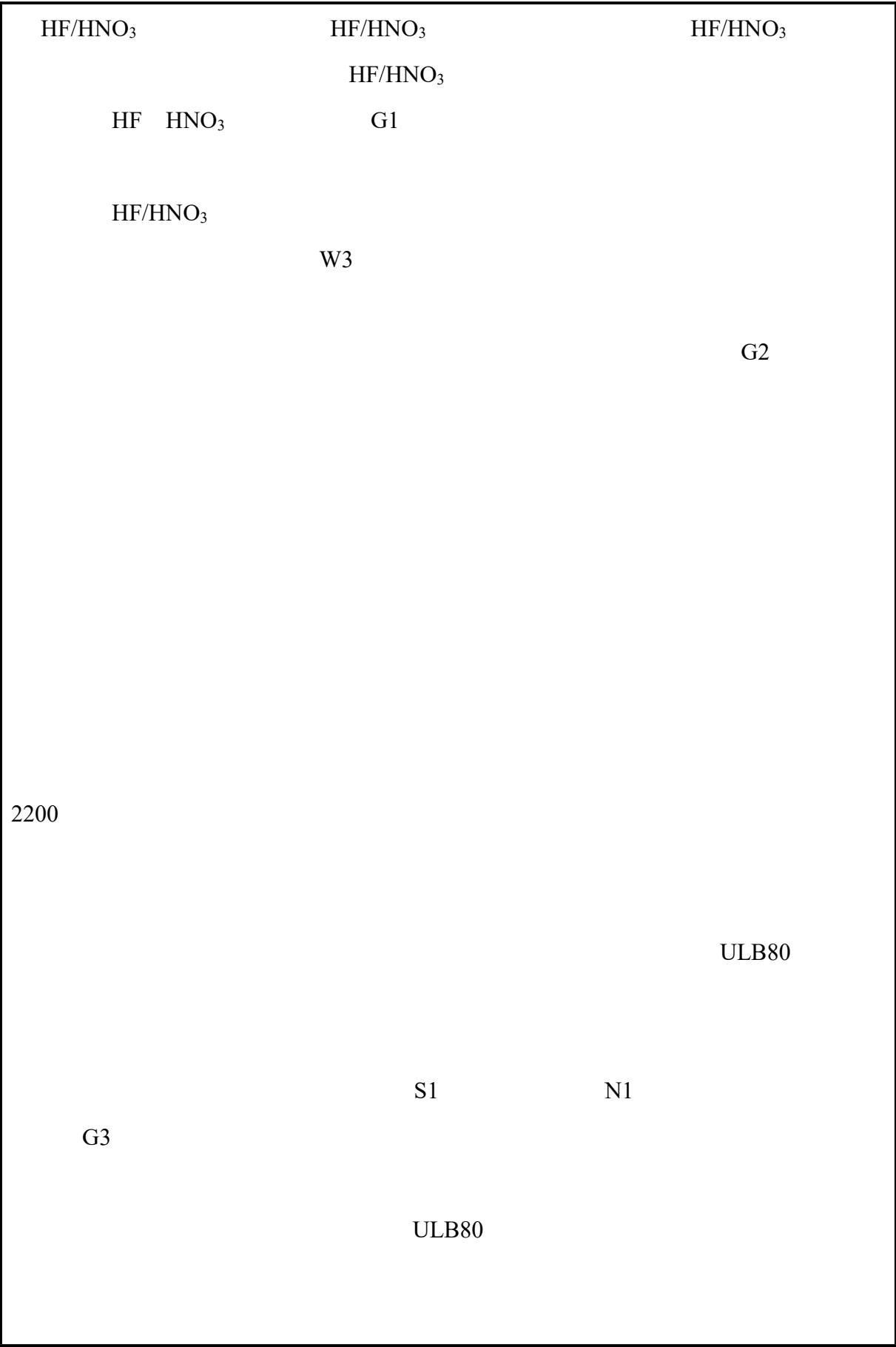
		HF	0.3820	0.2790	0.1103	-0.2717
			0.1620	0.0150	0.1779	+0.0159
			0.1560	0.0150	0.1861	+0.0301
			0.1560	0.0150	0.1861	+0.0301
		VOC	2.1660	0.2030	2.3967	+0.2307
			0.0178	0	0.0178	0
		³ /a	25013.76	1820.60	26922.41	+1908.65
		COD	3.3600	0.1460	3.5123	+0.1523
		SS	3.1080	0.1750	3.3388	+0.2308
			0.1928	0	0.1928	0
		TP	0.0230	0	0.0230	0
			0.0044	0.0004	0.0365	0
			7.4270	0.6940	8.2050	+0.7780
			0.0720	0	0.0720	0
			0	0	0	0
			0	0	0	0
			0	0	0	0

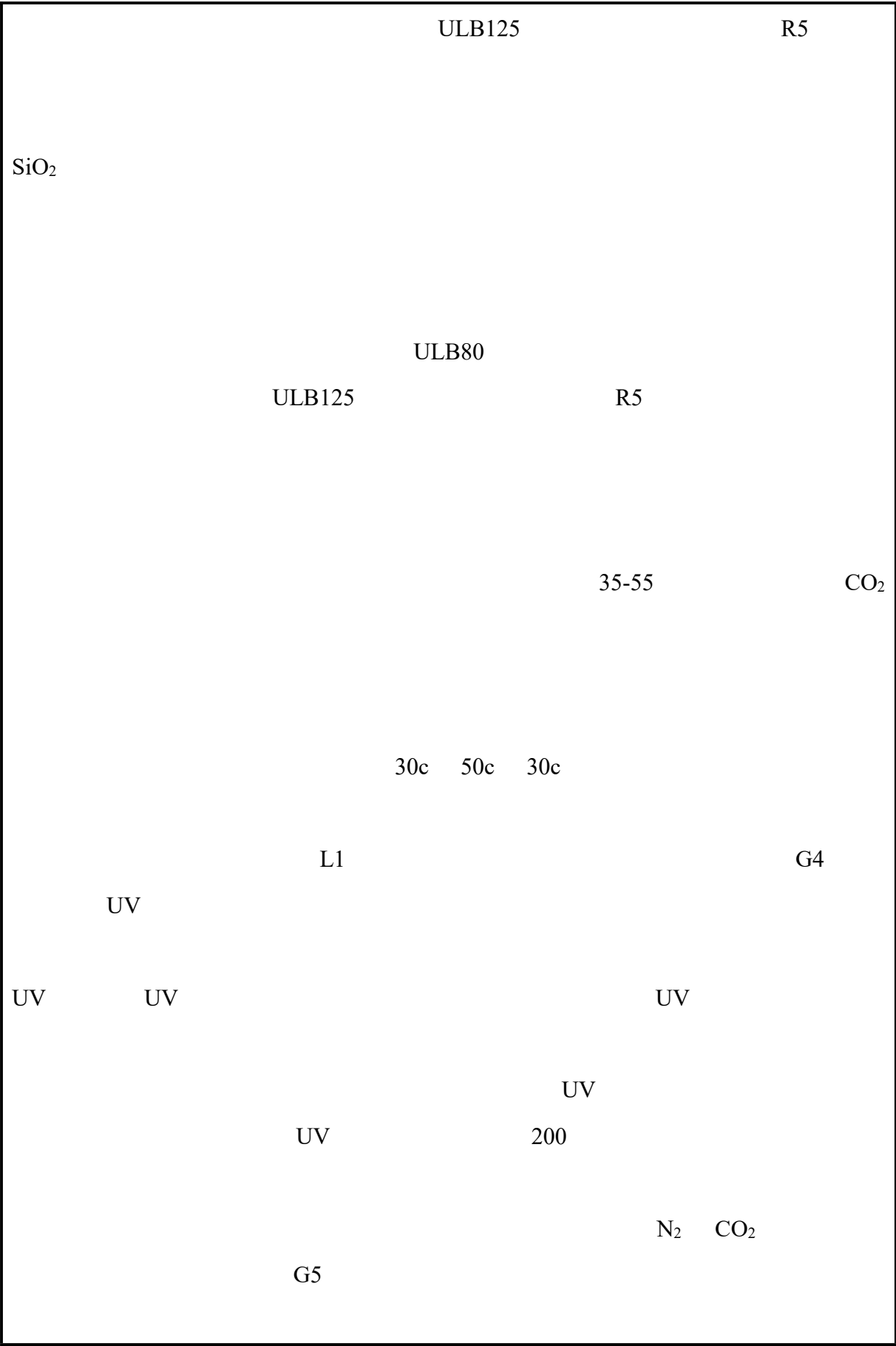
1

0.0159 /a









PMD

PMD

ULB80

PMD

S2

N2

S3

N3

S4

OH-

ULB80

ULB125

1.5%

S5

5-1

	W1		PH COD SS		
	W2		PH COD SS		
	W3		PH COD SS		
	G1		HF		
	G2				
	G3				
	G4				
	G5				
	L1				
	S1				
	S2				
	S3				
	S4				
	S5				
	N1		Le A		/
	N2				/
	N3				/

R5

F

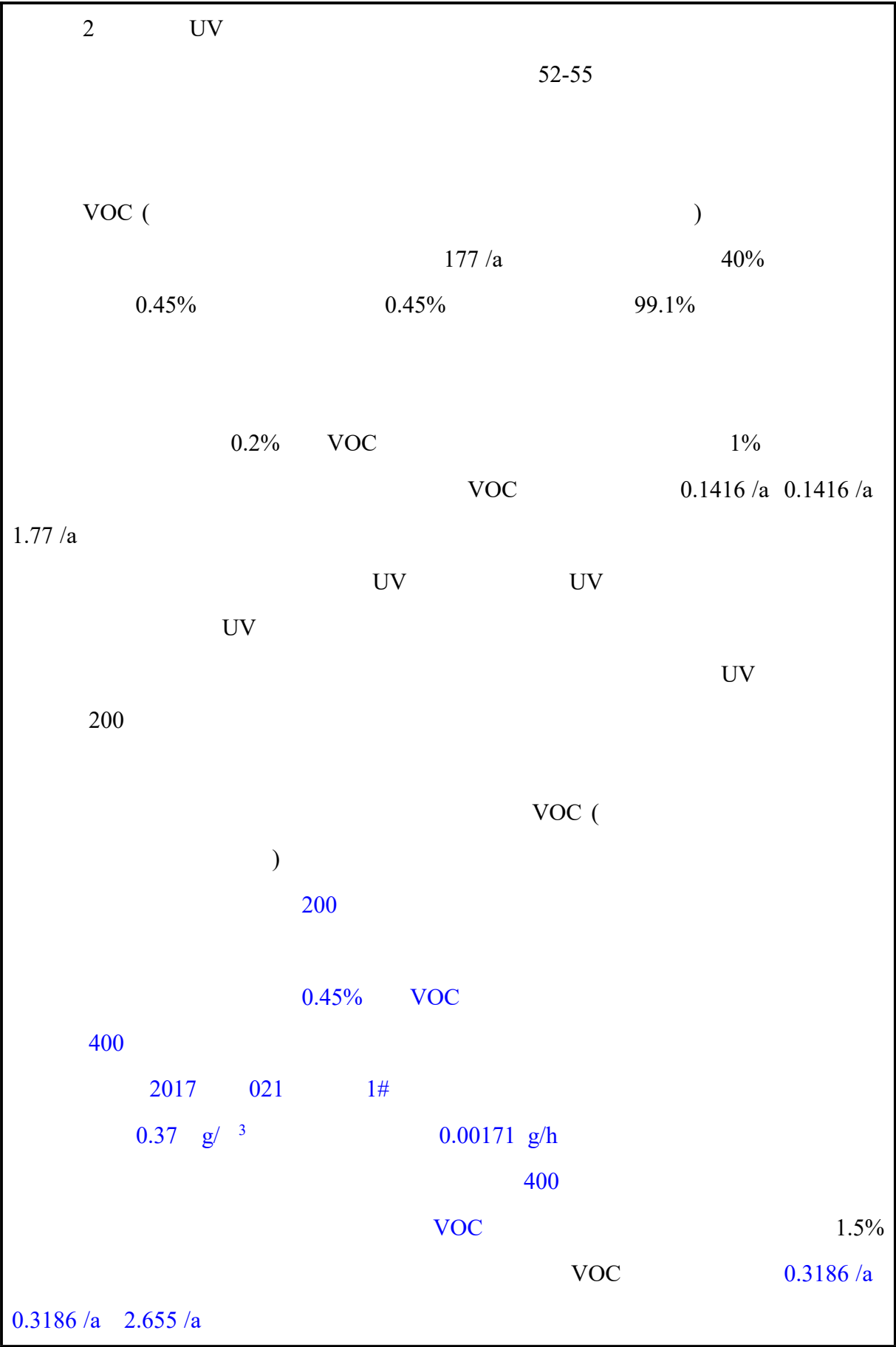
F

1360 -1450

ULB125

ULB80

59



0.4602/a 0.4602 /a 4.4250 /a

90%

0.04510 /a 0.04510 /a

42

0.0092 /a 0.0092 /a 0.0885 /a

1000

0.0154 /a

CO₂

5-4 5 7

5-8

	6000	HF	33.667	0.202	0.2420		97	1.008	0.0061	0.0073	9.0	0.15	15	0.4	25	1200
			14.291	0.086	0.1029		70	4.287	0.0257	0.0310	240	1.2	15	0.4	25	1200
	10400		6.023	0.0626	0.4510		90	0.602	0.00626	0.04510	/	4.38	42	0.4	25	7200
			6.023	0.0626	0.4510			0.602	0.00626	0.04510	/	4.38	42	0.4	25	7200
		VOC	57.913	0.6023	4.3365			5.791	0.06023	0.43365	80	23.48	42	0.4	25	7200

	FQ1	6000	HF	2.56	0.015	0.1106	9.0	0.15	15	0.4	25	7200
				4.11	0.025	0.1777	240	1.2				
	FQ2	10400		2.49	0.026	0.1865	/	4.38	42	0.4	25	7200
				2.49	0.026	0.1865	/	4.38				
			VOC	32.01	0.333	2.3966	80	23.48				
	FQ3	9000		1.65	0.015	0.0178	2.0	/	/	/	/	1200

	HF	0.00034	0.00244	15	8	8	7200
		0.0001	0.0010				
		0.0013	0.0092	68	12	15	
		0.0013	0.0092				
	VOC	0.0123	0.0885				
		0.0021	0.0154	4	5	8	

		HF	0.0102	0.0731	120	8	7200
			0.0044	0.0319			
			0.0053	0.0382	720	15	
			0.0053	0.0382			
		VOC	0.0679	0.4891			
			0.0902	0.6498	20	8	

1	FQ1	HF	1.008	0.0061	0.0073
2			4.287	0.0257	0.0310
3	FQ3		0.602	0.00626	0.04510
4			0.602	0.00626	0.04510
5		VOC	5.791	0.06023	0.43365
					0.56198
1	/	/	/	/	/
		/			/
		HF			0.0073
					0.0310
					0.04510
					0.04510
		VOC			0.43365
					0.56198

1			HF		(GB16297-1996) 2	0.02	0.0024
2						0.12	0.0010
3					GB/T3840-91	0.4	0.0092
4						0.4	0.0092
5			VOC		DB12/524-2014	2.0	0.0885
6					GB/T3840-91	25	0.0154

1			HF	17.3077	0.104			
2				9.289	0.056			
3				3.313	0.034			
4				3.313	0.034			
5		50%	VOC	31.852	0.331	0.25	0.1	

3792.5 /a

+

(GB18918 2002)

A

1

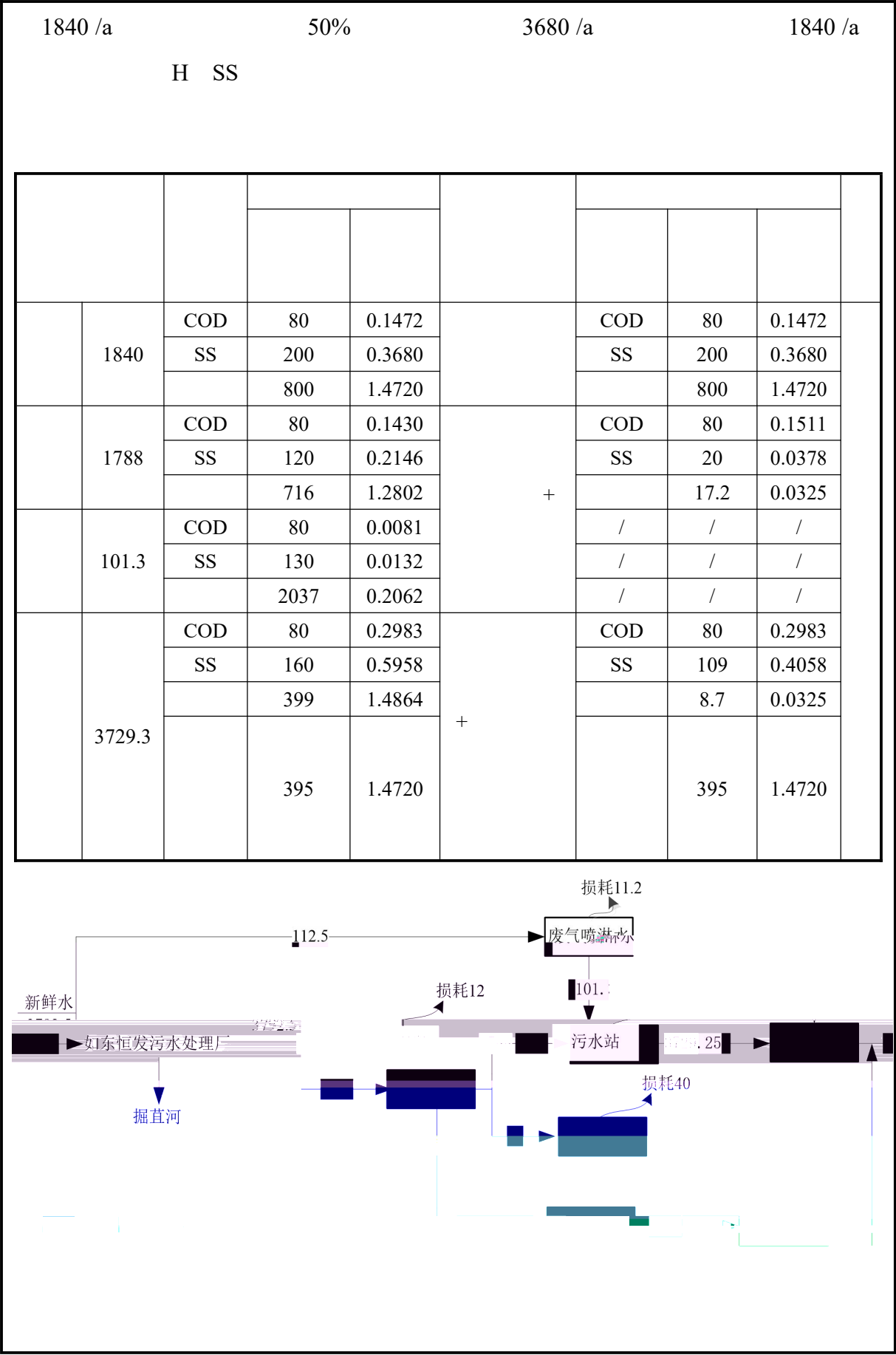
4500 /a 140.1 /a 1800 /a
0.67% W1 W3 1788 ³/a
H SS

2

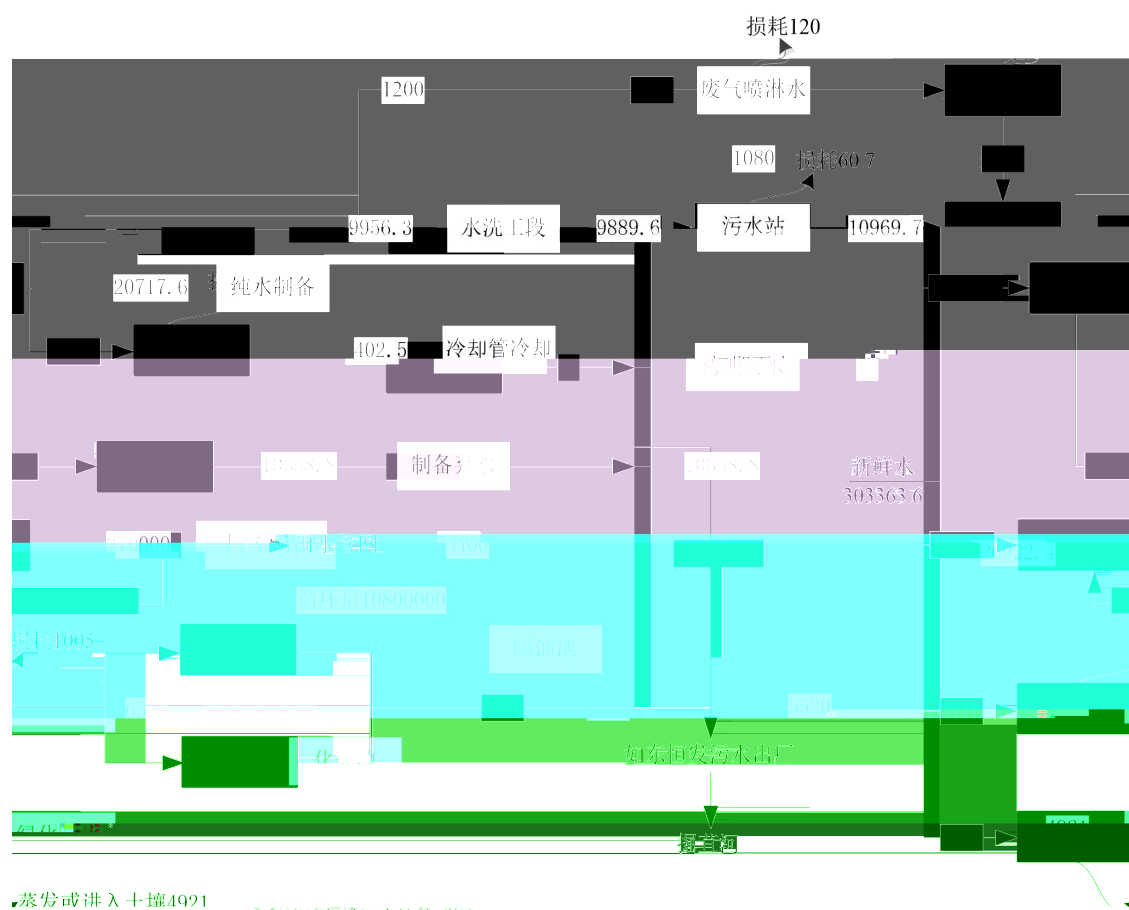
112.5 /a 10%
101.3 /a H SS

3

1 2 /h
1800 /a 40 /a



66



1		COD SS			/			DW 001	☒ ☐	☒ ☐ ☐ ☐ ☐ ☐

1	DW001	121.15 3788	32.3456 56	3729.3			/		H	6 9
									COD	50
									SS	10
										5
										/
										0.5

1	DW001	PH	GB8978-1996	6 9
		COD		300
		SS		150
				20
		NH ₃ -N	GB/T 31962-2015	45

1	DW001		/	12.43	89.74	3729.3	26922.4
		COD	80	0.0010	0.0117	0.2983	3.5123
		SS	109	0.0014	0.0111	0.4058	3.3388
			8.7	0.0001	0.0001	0.0325	0.0365
			395	0.0049	0.0274	1.4720	8.2050
			35	0	0.0006	0	0.1928
		TP	4	0	0.0001	0	0.0230
			25	0	0.0002	0	0.0720

RO

1

2.8 /a

2

RO

RO

0.1 /a

RO

0.05 /a

3

2 /a

5

0.07 /a

6

0.01 /a

7

0.04 /a

5-11

					/a
1					2.80
2					0.1
3	RO			RO	0.05
4					2
5					0.07
6					0.04
7					0.01
					5.07

1

GB34330-2017

2018 18

5-12

1						4.1-(a)	5.1-(c)
2						4.3-()	5.1-(a)/(b)
3	RO			RO		4.3-()	5.1-(a)/(b)
4						4.2-(e)	5.1-(c)
5						4.1-(h)	5.1-(a)/(b)
6						4.1-(h)	5.1-(a)/(b)
7						4.1-(c)	5.1-(e)

5-13

5-14

1		HW11	900-013-11	0.07				
2		HW08	900-218-08	0.01				
3		HW49	900-041-49	0.04				
4		HW49	900-041-49	0.1				
5	RO	HW49	900-041-49	0.05			RO	
6		/	/	2				
				2.27				

1					2.80	
	/	/	/	/	2.80	/

75 80dB A

5-15

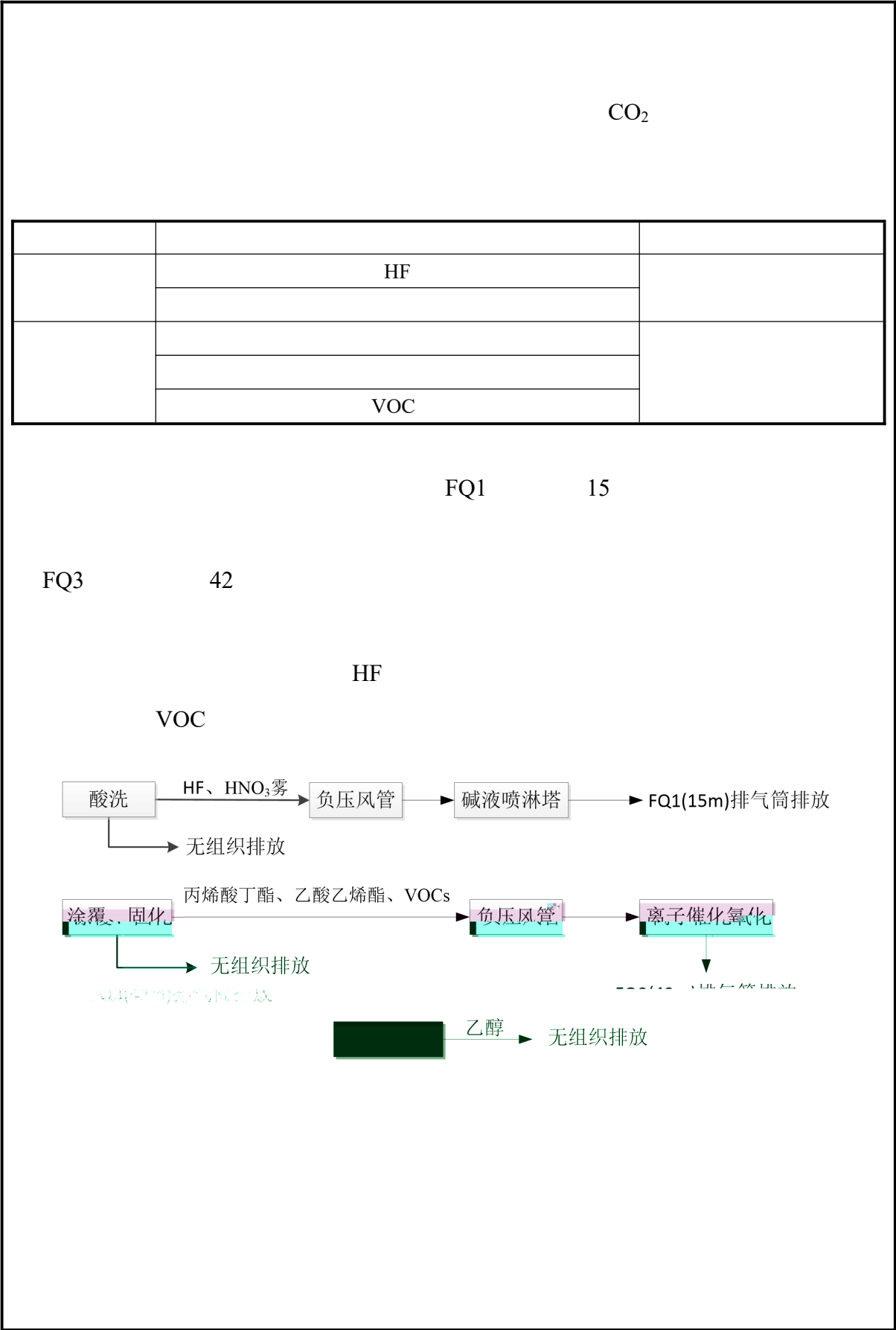
1		3	85		60		25
2		3	85		52		25
3		3	75		52		25
4		3	80		50		25

5-16

0.2420	0.2347	0.0073	0.0073
0.1029	0.0720	0.0310	0.0310
0.4510	0.4059	0.04510	0.04510
0.4510	0.4059	0.04510	0.04510
4.3365	3.9029	0.43365	0.43365
0.00244	0	0.00244	0.00244
0.0010	0	0.0010	0.0010
0.0092	0	0.0092	0.0092
0.0092	0	0.0092	0.0092
0.0708	0	0.0708	0.0708
0.0015	0	0.0015	

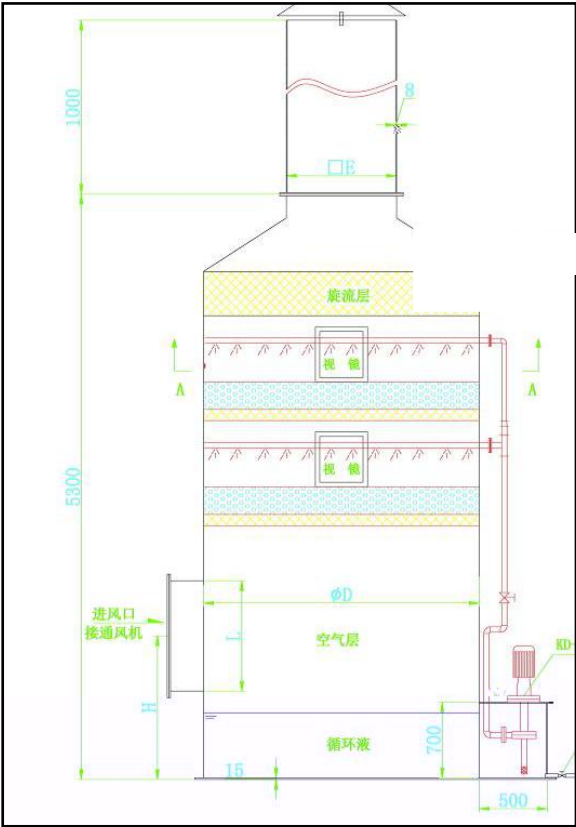
		HF	0.3820	0.0073	0.2790	0.1103	-0.2717
			0.1620	0.0309	0.0150	0.1779	+0.0159
			0.1560	0.04510	0.0150	0.1861	+0.0301
			0.1560	0.04510	0.0150	0.1861	+0.0301
		VOC	2.1660	0.43665	0.2030	2.3967	+0.2307
			0.0178	0	0	0.0178	0
		³ /a	19493.76	3729.25	1820.60	21402.41	+1908.65
		COD	1.5600	0.2983	0.1460	1.7123	+0.1523
		SS	1.8720	0.4058	0.1750	2.1028	+0.2308
			0.0044	0.0325	0.0004	0.0365	+0.0321
			7.4270	1.4720	0.6940	8.2050	+0.7780
		³ /a	5520	0	0	5520	0
		COD	1.8000	0	0	1.8000	0
		SS	1.2360	0	0	1.2360	0
			0.1928	0	0	0.1928	0
		TP	0.0230	0	0	0.0230	0
			0.0720	0	0	0.0720	0
		³ /a	25013.76	3729.25	1820.60	26922.41	+1908.65
		COD	3.3600	0.2983	0.1460	3.5123	+0.1523
		SS	3.1080	0.4058	0.1750	3.3388	+0.2308
			0.1928	0	0	0.1928	0
		TP	0.0230	0	0	0.0230	0
			0.0044	0.0325	0.0004	0.0365	0
			7.4270	1.4720	0.6940	8.2050	+0.7780
			0.0720	0	0	0.0720	0
			0	0	0	0	0
			0	0	0	0	0
		0	0	0	0	0	

			HF	33.667	0.202	0.2420	1.008	0.0061	0.0073	FQ1
				14.291	0.086	0.1029	4.287	0.0257	0.0310	
				6.023	0.0626	0.4510	0.602	0.00626	0.04510	FQ3
				6.023	0.0626	0.4510	0.602	0.00626	0.04510	
			VOC	57.913	0.6023	4.3365	5.791	0.06023	0.43365	
			HF	/	0.00034	0.00244	/	0.00034	0.00244	
				/	0.0001	0.0010	/	0.0001	0.0010	
				/	0.0013	0.0092	/	0.0013	0.0092	
				/	0.0013	0.0092	/	0.0013	0.0092	
			VOC	/	0.0123	0.0885	/	0.0123	0.0885	
				/	0.0002	0.0015	/	0.0002	0.0015	
			3729.3	/		3729.3	/			
		COD	0.2983	80	COD	0.2983	80			
		SS	0.5958	160	SS	0.4058	109			
			1.4864	399		0.0325	8.7			
			1.4720	395		1.4720	395			
			2.80	2.80	0	0				
			0.1	0.1	0	0				
		RO	0.05	0.05	0	0				
			2	2	0	0				
			0.07	0.07	0	0				
			0.04	0.04	0	0				
			0.01	0.01	0	0				
		/								

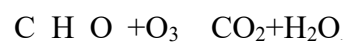
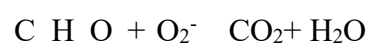
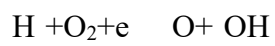
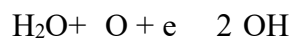
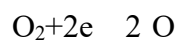
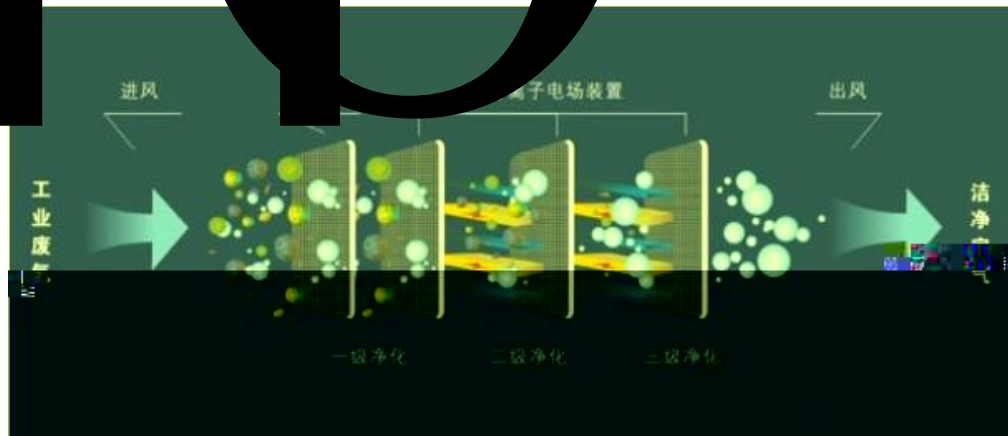
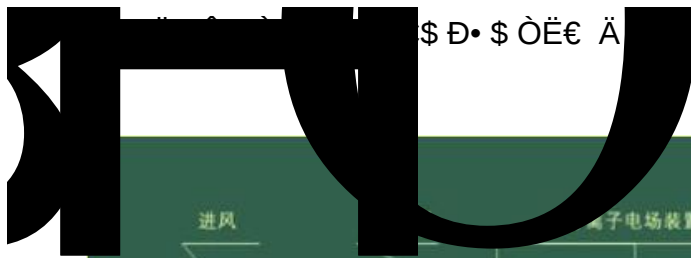


PH

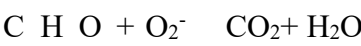
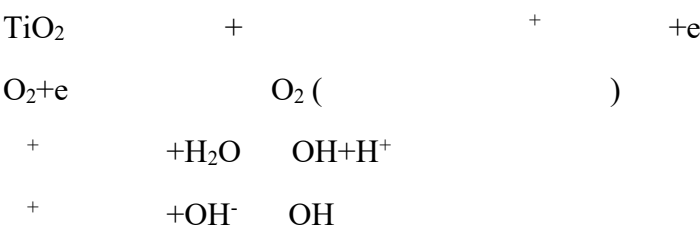
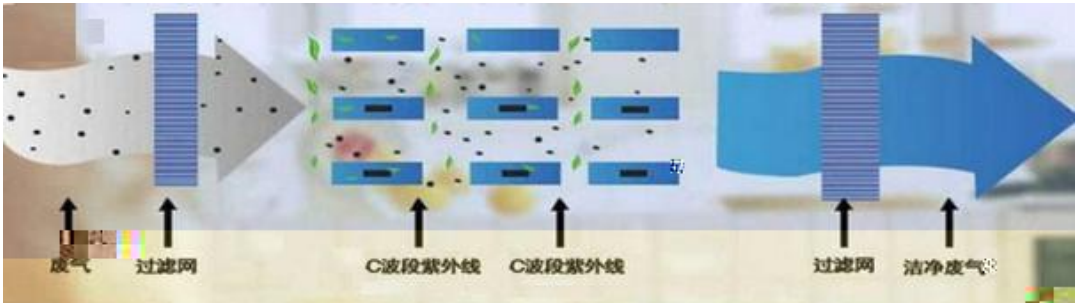
7-2



7-2



H₂O CO₂



1	/	1 2 3 4 5 560 1780 1270 304 PLC 200 - 300 Pa	1
2		1 2 3 4 5 6 7 9 1.8 850 1780 1270 304 5 W 60 PLC 200 - 300 Pa 2.2 / ,	1

3		1	1
		2	
		930 1780 1270	
		3 304	
		4 12 W	
		6 PLC	
		7 100 - 200 Pa	
		8 90	
		9 2.2 / ,	
		1.8	
4		12000 ³ /h 2000Pa 7.5KW	1
5		PP 10	1
6			1

VOC			
0.776 g/ ³	2.90 10 ⁻³ Kg/h	412	
DB12/524-2014			
			10
FQ1	15 FQ3	42	37
GB16297-1996			
HJ2.2-2018			
AERSCREEN			

HF			20.0	GB3095-2012
			250.0	GB3095-2012
			270.0	(HJ611-2001) C -
			2000.0	DB13/1577-2012
			80.0	
			80.0	
			5000.0	CH245-71

/	/				
/			40.0 C		
/			-10.0 C		
	/		/		
	/				

1	FQ 1	121.15 0616	32.347 673	2	15	0.4	11	25	72 00		0.0 15	0.0 25	/	/	/
2	FQ 3	121.15 0067	32.347 446	2	24	0.4	11	25	72 00		/	/	0.02 6	0.02 6	0.33 3

1		121. 1497 72	32. 347 728	2	15	8	-	8	72 00		0.00 034	0.00 01	/	/	/	/
2		121. 1498 73	32. 347 386	2	12	68	-	15	72 00		/	/	0.0 013	0.0 013	0.0 098	/
3		121. 1498 61	32. 347 182	3	5	4.	-	8	72 00		/	/	/	/	/	0.0 123

AERSCREEN

50.0	0.9595	4.8	1.5991
100.0	1.3994	7.0	2.3323
200.0	1.379	6.89	2.2983
300.0	1.1925	5.96	1.9875
400.0	0.9491	4.75	1.5818
500.0	0.7618	3.81	1.2697
600.0	0.7364	3.68	1.2273
700.0	0.7013	3.51	1.1689
800.0	0.6572	3.29	1.0954
900.0	0.6116	3.06	1.0193
1000.0	0.5677	2.84	0.9461
1200.0	0.5154	2.58	0.8589
1400.0	0.47	2.35	0.7833
1600.0	0.4273	2.14	0.7121
1800.0	0.3888	1.94	0.648
2000.0	0.3548	1.77	0.5913
2500.0	0.3054	1.53	0.509
	1.4679 82	7.34	2.4465 82
	/	/	/

50.0	0.7657		0.7657	
100.0	1.9615		1.9615	
200.0	1.3565		1.3565	
300.0	0.9882		0.9882	
400.0	0.7919		0.7919	
500.0	0.668		0.668	
600.0	0.6143		0.6143	
700.0	0.5787		0.5787	
800.0	0.537		0.537	
900.0	0.4953		0.4953	
1000.0	0.4563		0.4563	
1200.0	0.3888		0.3888	
1400.0	0.3345		0.3345	
1600.0	0.3033		0.3033	
1800.0	0.286		0.286	
2000.0	0.2811		0.2811	
2500.0	0.2596		0.2596	
	1.9628 98	2.45	1.9628 98	2.45
	/		/	
50.0	9.8059		0.49	
100.0	25.122		1.26	
200.0	17.372		0.87	
300.0	12.657		0.63	
400.0	10.142		0.51	
500.0	8.5549		0.43	
600.0	7.8675		0.39	
700.0	7.4113		0.37	
800.0	6.8771		0.34	
900.0	6.344		0.32	
1000.0	5.8444		0.29	
1200.0	4.9791		0.25	
1400.0	4.2842		0.21	
1600.0	3.8849		0.19	
1800.0	3.6631		0.18	
2000.0	3.6003		0.18	
2500.0	3.3244		0.17	
	25.138 98		1.26	
	/			

50.0	0.4876	2.44	0.1434	0.06
100.0	0.3145	1.57	0.0925	0.04
200.0	0.2066	1.03	0.0608	0.02
300.0	0.1635	0.82	0.0481	0.02
400.0	0.1384	0.69	0.0407	0.02
500.0	0.1215	0.61	0.0357	0.01
600.0	0.1091	0.55	0.0321	0.01
700.0	0.0915	0.46	0.0269	0.01
800.0	0.0849	0.42	0.025	0.01
900.0	0.0793	0.4	0.0233	0.01
1000.0	0.0701	0.35	0.0206	0.01
1200.0	0.0629	0.31	0.0185	0.01
1400.0	0.057	0.29	0.0168	0.01
1600.0	0.0522	0.26	0.0153	0.01
1800.0	0.0481	0.24	0.0142	0.01
2500.0	0.0407	0.2	0.012	0.0
	1.2708 9	6.35	0.3738 9	0.15
	/		/	
50.0	0.6222	0.78	0.6222	0.78
100.0	0.6395	0.80	0.6395	0.80
200.0	0.3991	0.50	0.3991	0.50
300.0	0.2979	0.37	0.2979	0.37
400.0	0.2425	0.30	0.2425	0.30
500.0	0.2069	0.26	0.2069	0.26
600.0	0.1818	0.23	0.1818	0.23
700.0	0.163	0.20	0.163	0.20
800.0	0.1483	0.19	0.1483	0.19
900.0	0.1364	0.17	0.1364	0.17
1000.0	0.1267	0.16	0.1267	0.16
1200.0	0.1114	0.14	0.1114	0.14
1400.0	0.0999	0.12	0.0999	0.12
1600.0	0.091	0.11	0.091	0.11
1800.0	0.0837	0.10	0.0837	0.10
2000.0	0.0778	0.10	0.0778	0.10
2500.0	0.0665	0.08	0.0665	0.08
	0.6533 88	0.82	0.6533 88	0.82
	/		/	

50.0	5.888	0.29	3.0627	0.06
100.0	6.0513	0.3	1.9549	0.04
200.0	3.7765	0.19	1.2818	0.03
300.0	2.8188	0.14	1.0101	0.02
400.0	2.2946	0.11	0.8549	0.02
500.0	1.9576	0.1	0.7506	0.02
600.0	1.7201	0.09	0.6738	0.01
700.0	1.5421	0.08	0.5652	0.01
800.0	1.4032	0.07	0.5245	0.01
900.0	1.2912	0.06	0.4897	0.01
1000.0	1.1987	0.06	0.4331	0.01
1200.0	1.0541	0.05	0.3886	0.01
1400.0	0.9457	0.05	0.3524	0.01
1600.0	0.8609	0.04	0.3223	0.01
1800.0	0.7924	0.04	0.2974	0.01
2500.0	0.7359	0.04	0.2513	0.01
	6.1827 88	0.31	15.082 4	0.3
	/		/	

FQ1

HF 1.4679 g/ ³ 7.34%

2.4465 g/ ³ 0.98% FQ2

25.138 g/ ³ 1.26% 1.9628 g/ ³

2.45% 1.9628 g/ ³ 2.45%

HF 1.2708 g/ ³ 6.35%

0.3738 g/ ³ 0.15%

0.6533 g/ ³ 0.82%

0.6533 g/ ³ 0.82%

6.1827 g/ ³ 0.31%

15.082 g/ ³ 0.3% HJ/2.2-2018

	P a 10%
	1% P a 10%
	P a 1%

$$\frac{Q_c}{C_m} = \frac{1}{A} (BL^C + 0.25r^2)^{0.50} L^D$$

Q_c g/h C

g/ ³ L

A B C D

7-10

		L 1000			1000 L 2000			L 2000		
A	<2	400	400	400	400	400	400	80	80	80
	2-4	700	470*	350	700	470	350	380	250	190
	>4	530	350	260	530	350	260	290	190	140
B	<2	0.01			0.015			0.015		
	>2	0.021*			0.036			0.036		
C	<2	1.85			1.79			1.79		
	>2	1.85*			1.77			1.77		
D	<2	0.78			0.78			0.57		
	>2	0.84*			0.84			0.76		

*

	HF	3.067	50	100
		0.036	50	
		0.938	50	
		0.938	50	
	VOC	0.295	50	
		0.110	50	

Qc/C

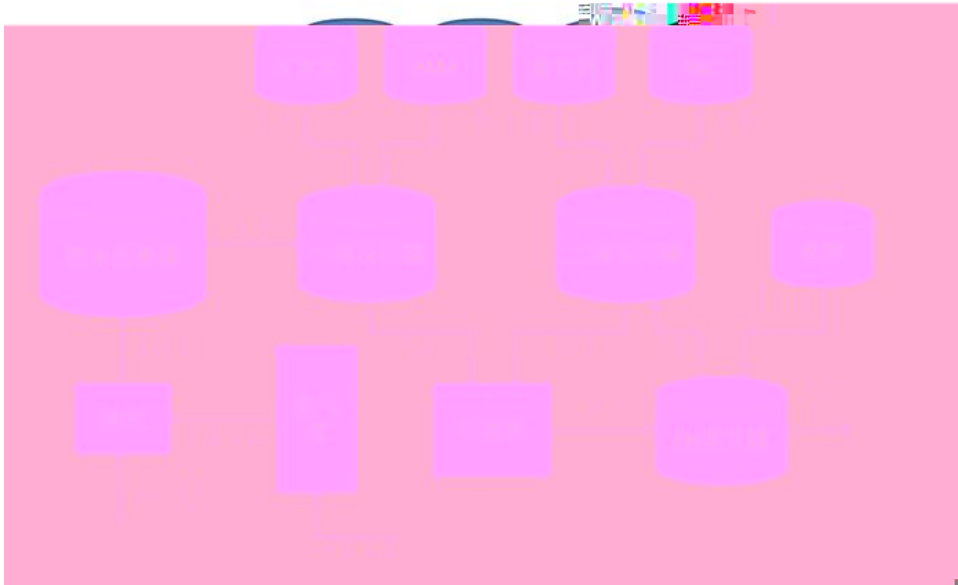
100 50 100 1000 100

Qc/C						
100						
100						
100						
100						
8						
		=50	5 50			=5
	SO ₂ +NO	2000 /a	500 2000 /a			500 /a
		HF /		PM _{2.5} PM _{2.5}		
				D		
		2017				
		AERMOD	ADMS	AUSTAL2000	EDMS/AED T	CALPUFF
		50	5 50			=5

					PM _{2.5} PM _{2.5}	
		100%			100%	
			10%			10%
			30%			30%
	1 h	h	100%			100%
		20%			20%	
		HF				
		VOC				
		HF			1	
		VOC				
		SO ₂	/a	NO	0.031	/a
					25	/a
					VOC	0.4367
						/a

3792.5

“q t



1

PH

2

PH : PH

6

2 3 /

0.5 1.5 /

1 /

UPVC

7

HF

4.345 g/L

GB8978-1996

7 ³/d

3 ³/d

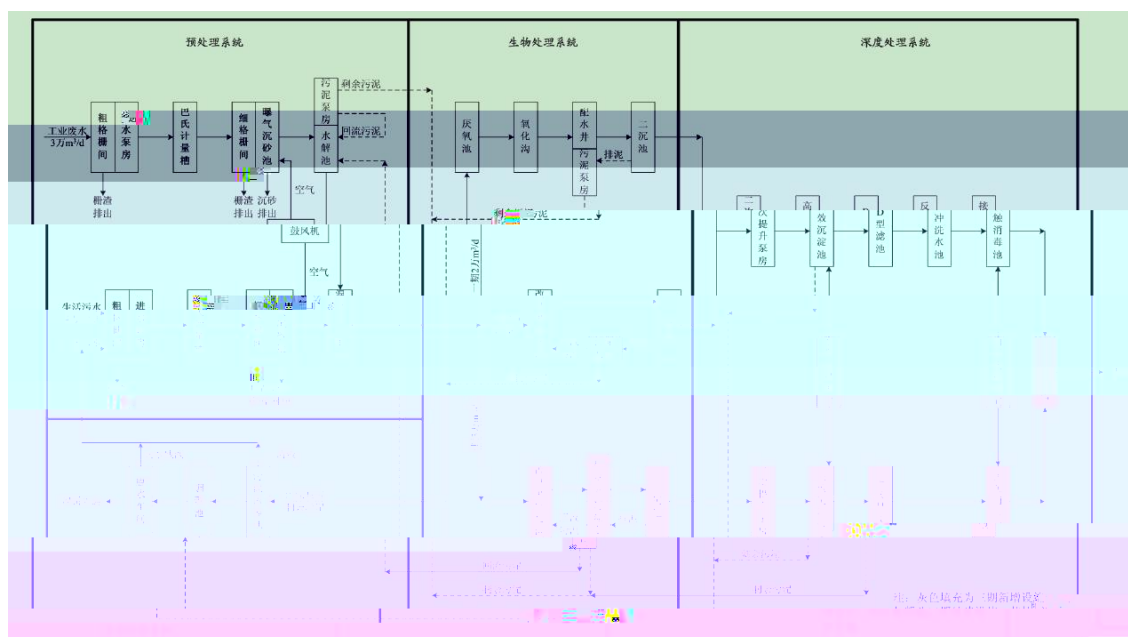
4 ³/d

3 ³/d

1 ³/d

2 ³/d

2017 38



GB18918-2002 A

3792.5^{3/a} 12.64^{3/d}

		H	

		A B	
		40% 40%	
		PH COD SS	1
		2	
		H COD SS	
		2	

HJ610-2016

HJ610-2016 A

COD SS

1	
2	Mb 1.5 K 10 ⁻⁷ c /
3	
4	
5	Mb 6.0 K 10 ⁻⁷ c /
6	

GB18597-2001

7-17

1			HW12	264-013-12		6 ²	
2			HW08	900-218-08			
3			HW49	900-041-49			
4			HW49	900-041-49			
5		RO	HW49	900-041-49			
6			/	/			

HJ 2025-2012

a

GB18599-2001

b

RO

8

c

75 85dB A

25dB(A)

a

$$L_{eq} = 10 \lg \left(\frac{1}{T} \sum_{i=1}^N L_{Ai}^2 \right)$$

L_{eq} dB(A)

L_{Ai} dB(A)

T

i i T

b

$$L_{eq} = 10 \lg \left(10^{\frac{L_{eq1}}{10}} + 10^{\frac{L_{eq2}}{10}} \right)$$

L_{eq} dB(A)

L_{eq} dB(A)

7-18

1			11.21	17.59	19.49	24.43
2			12.88	17.52	16.54	25.68
3			3.42	8.56	9.02	15.58
4			7.51	11.71	12.39	21.02
			16.1	21.3	22.0	29.1
			54.3	53.6	54.4	53.2
			48.6	48.4	49.6	48.5
			53.8	53.6	54.3	53.8
			48.9	48.3	47.8	47.6
			57.1	56.6	57.4	56.5
			51.76	51.4	51.8	51.1
			65	65	65	65
			55	55	55	55

[C3832]

HJ 964-2018

A

IV

(HJ964-2018)

4.2.2 IV

GB18597-2001

1	HF	120	/	/	LC ₅₀ 1044	/	/	
2	HNO ₃	86	/	/	/	/	/	
3		/	/	/	LD ₅₀ 500-5000	/	/	/
4		78.3	12	3.3/19.0	83776/5628		/	/
5		-195.6	/	/	/	/	/	/
6		-185.7	/	/	/	/	/	/
7		-268.9	/	/	/	/	/	/
8		-249.5	/	5/75	/		/	/
9		-78.5	/	/	/	/	/	/

HF

(HJ/T169-2018)

A.1

A.

HF /HNO₃

B.

- 1 ,
- 2
- 3

	+			
				a
a				

P

HJ169-2018 B

HF HNO₃

Q 7-21

1	HF	7664-39-3	0.8	1	0.8
2	HNO ₃	7697-37-2	0.4	7.5	0.0533
3		141-32-2	0.0144	10	0.00144
Q					0.85474

Q Q 1

Q



E.

7-23

Œ f È AGy#q • E-L\$G" /HF
/HF

320623-2017-049-L

15000

0.13%

		FQ1	HF	+15	(GB16297-1996) 2
		FQ3		+42	GB/T3840-91
			VOC		DB12/524-2014
			HF VOC		
				COD SS	+
		COD SS			
		COD SS			
RO					

		/	
	RO	HF 97%	

					2015	10
	1000			2016	12	
	[2016]112		2017	8	27	
(	[2017]5					2017
11	16					[2017]15
				15000		
	62961	²		21424.21	²	
	32			3		
	187.5	/		400	/	
				R5	280	/
(ULB125)70		/		ULB80	50	/
	2018	11	14			
				6		[2018]82
						(2011)
2013	2	16		<		(2011)>
				28		
						<
			2012	>		(
[2013]183	)		28			
					(2012	)

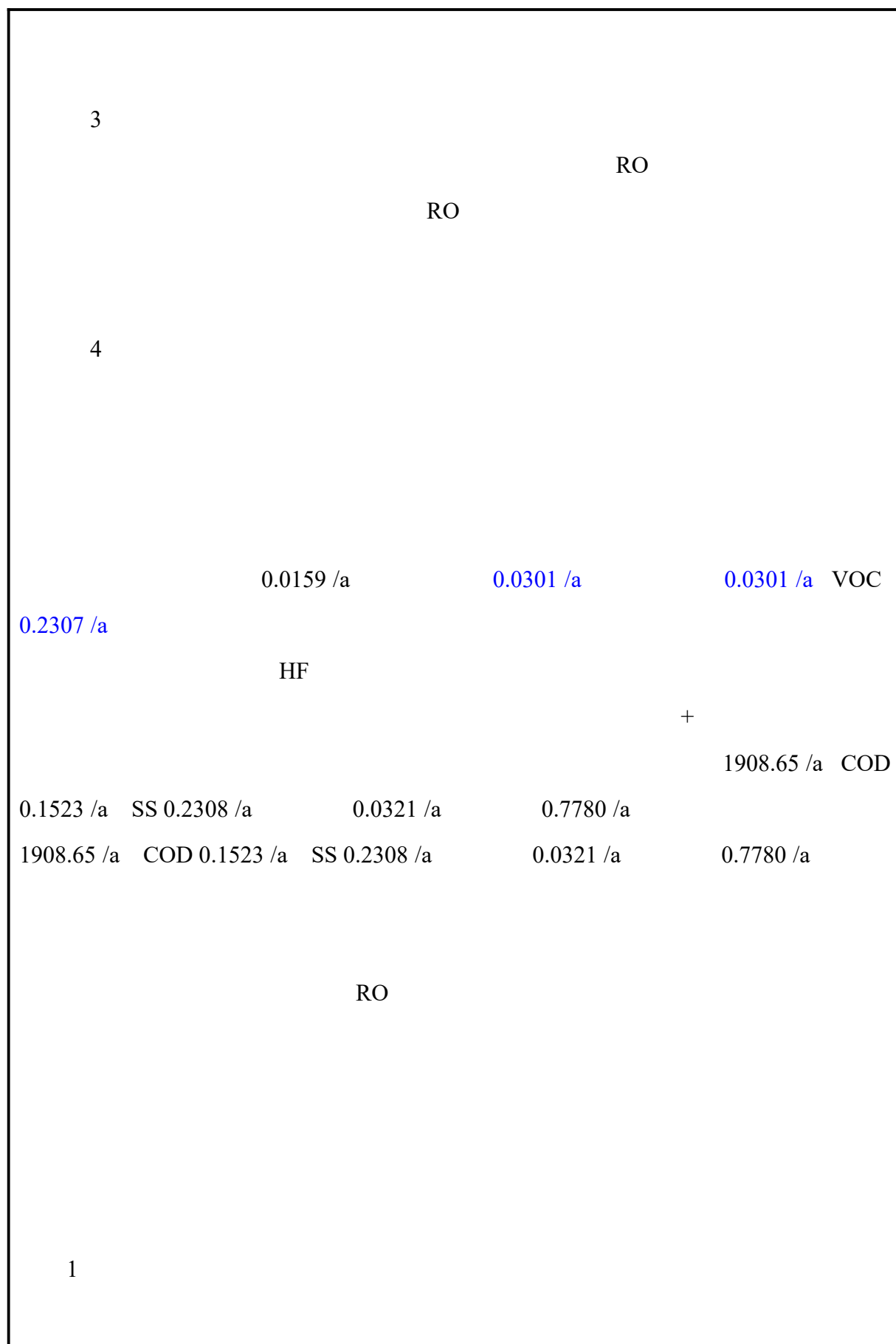
2012

2012

2012

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2012 5 23

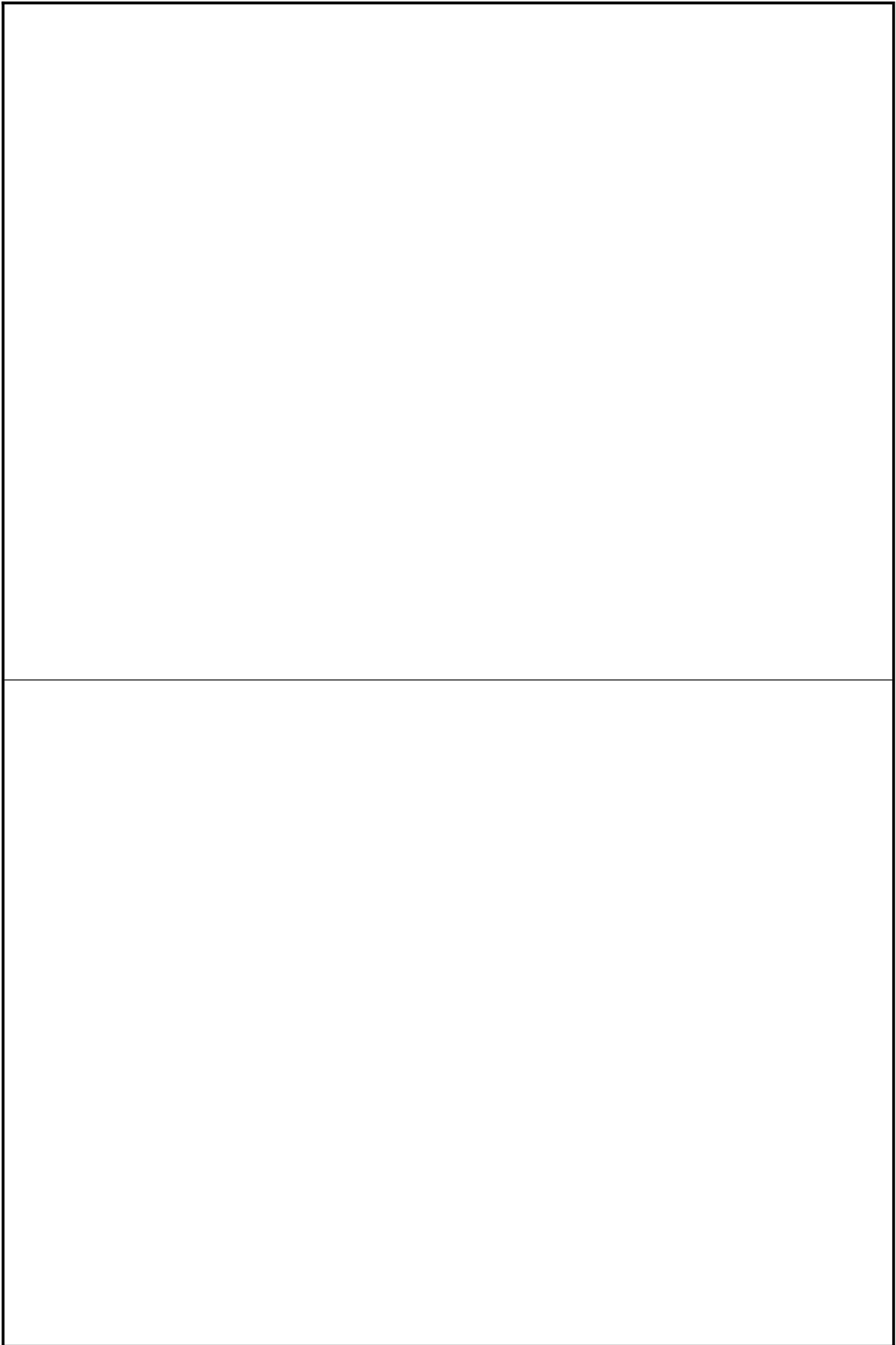


2

3

4

(GB/T18883-2002)





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