

HJ-BAT-XXX

**Guideline on Best Available Technologies of Pollution Prevention and Control
for Electroplating Industry on Trial**

	.....	1
1	.....	2
1.1	.....	2
1.2	.....	2
2	.....	2
2.1	.....	2
2.2	.....	3
3	.....	5
3.1	.....	5
3.2	.....	8
3.3	.....	10
3.4	.....	11
3.5	.....	12
3.6	.....	12
4	.....	13
4.1	.....	13
4.2	.....	14
4.3	.....	15
4.4	.....	18
4.5	.....	19
4.6	.....	19

1

1.1

1.2

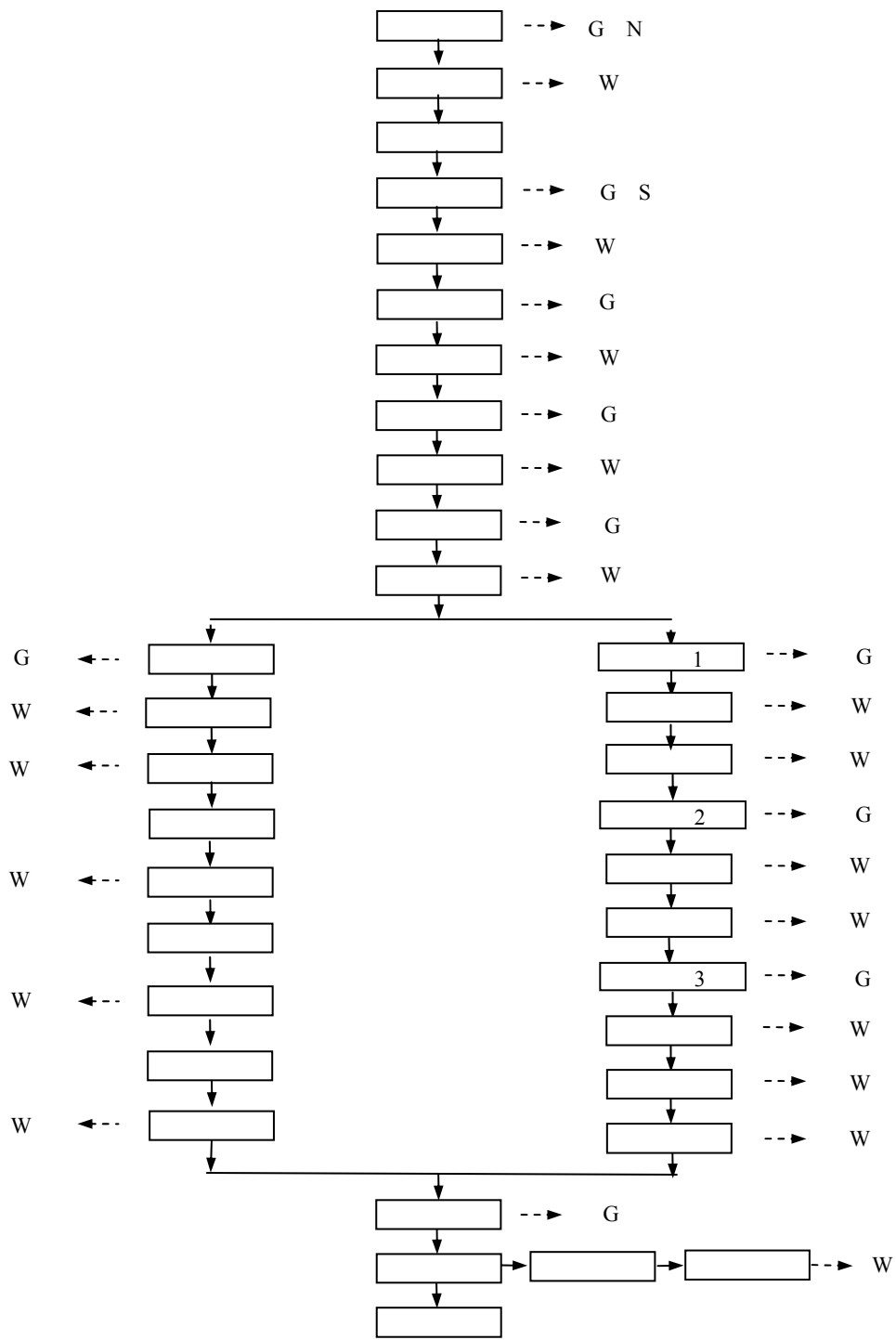
1.2.1

1.2.2

2

2.1

1



1

2.2

2.2.1

EDTA

2.2.2

1

1

2.2.3

2.2.4

65 100dB(A)

3

3.1

3.1.1

3.1.1.1

90%

3.1.1.2

CDS

pH1.0 3.0

CDS

(Cu²⁺)

3.1.1.3

24K

3.1.1.4

350HV

3.1.1.5

3.1.1.6

95%

20%

80%

3.1.1.7

3.1.2

3.1.2.1

3.1.2.2

90%

100%

3.1.2.3

3.1.2.4

30%

3.1.3

3.1.3.1

3.1.3.2

-

3.1.3.3

3.1.3.4

100%

3.1.3.5

3.1.3.6

150g/L

,

95%

3.1.3.7

,

3.2

3.2.1

3.2.1.1

3.2.1.2

pH 7 9 pH 2.5 3.0

3.2.1.3

pH

pH

3.2.1.4 +

/

95%

3.2.2

3.2.2.1

15 20min pH9 11 97% 99%

3.2.2.2

						pH	9	10
30	60							
		pH	2	4		pH	8	9

3.2.2.3 +

+

3.2.3

3.2.3.1 A/O /

	CODcr	500mg/L	CODcr	80%	CODcr	100mg/L
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3.2.3.2 A²/O /

A²/O A/O

	CODcr	500mg/L	50mg/L	CODcr	80%	90%	80%
90%	CODcr50	100mg/L	5 10mg/L				
		COD					

3.2.3.3 A/O²(/)

A/O² A/O A

	CODcr	500mg/L	50mg/L	CODcr	80%	90%	85%
90%	CODcr50	100mg/L	5 7.5mg/L				
		COD					

3.2.3.4

3000 6000mg/L

CODcr 500mg/L 50mg/L 5mg/L CODcr 90% 95%
 85% 90% 70% 75% CODcr50 75mg/L 5 7.5mg/L 1.25
 1.5mg/L

COD

3.2.3.5

2.0mg/L 8000 12000mg/L 0.2 0.5mg/L

CODcr 500mg/L 50mg/L 5mg/L CODcr 93% 95%
 90% 95% 90% 95% 95% CODcr 25 35mg/L 2.5 5.0mg/L
 0.5mg/L

COD

3.2.3.6

15000mg/L 100% 500% 10000

CODcr 500mg/L 50mg/L 5mg/L 60mg/L CODcr
 93% 95% 90% 95% 90% 95% 90%
 CODcr25 35mg/L 2.5 5.0mg/L 0.25 0.5mg/L 6mg/L
 COD

3.2.4

3.3

3.3.1

3.3.1.1

3.3.1.2

95%

3.3.1.3

15%

90% 96%

3.3.2

3.3.2.1

/

3.3.2.2

/

3.4

3.4.1.

3.4.2

3.4.3

95%

90%

80 100

3.5

3.6

3.6.1

3.6.2

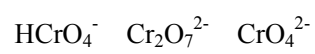
pH8.8 9.5

15.5°C 24°C

E-Brite 50/50

3.6.3

3.6.4

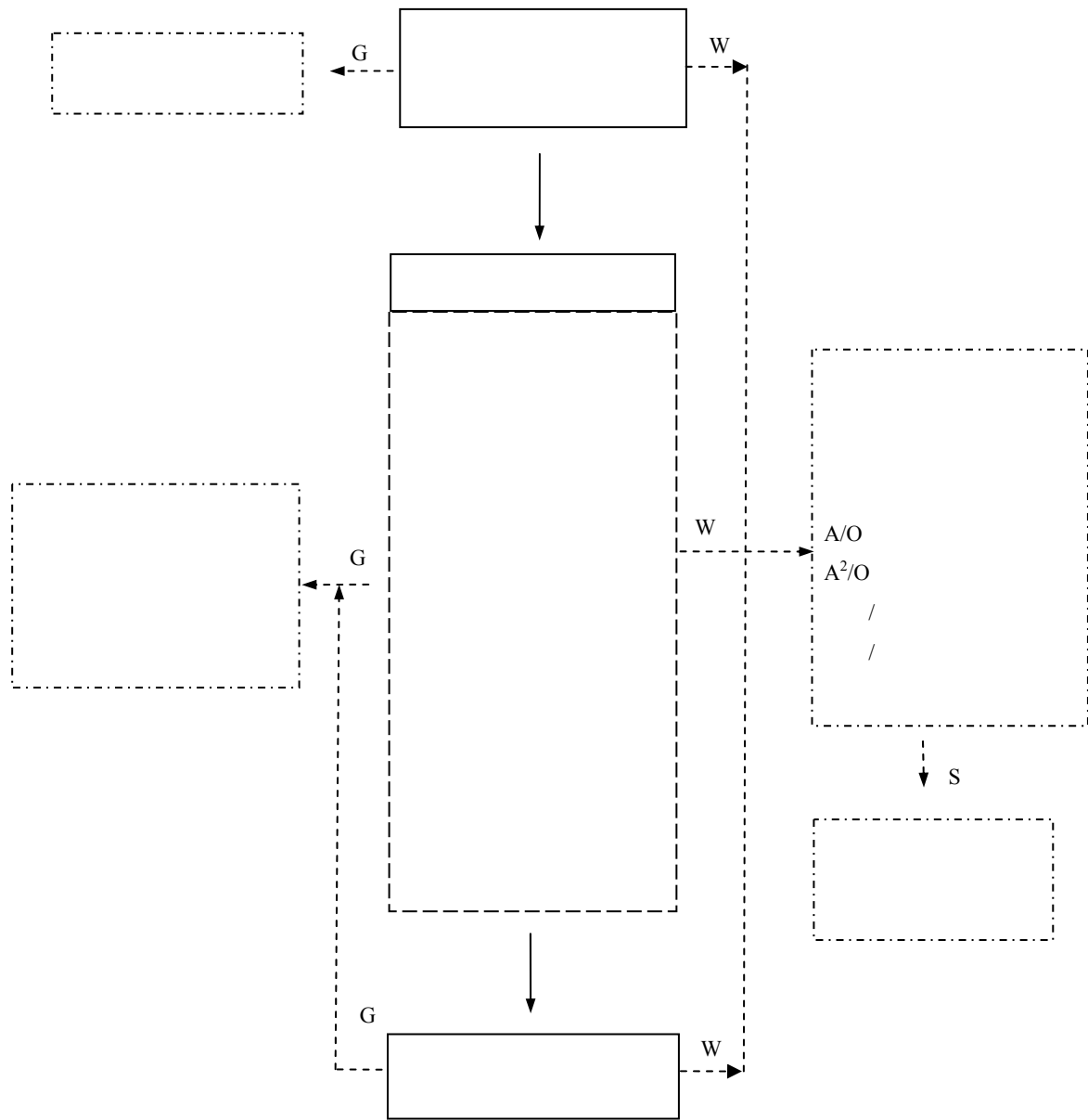


1%

4

4.1

2



□
□

4.2

2

		50%	
		90%	
	100%	80%	
		70%	
	mg/L	100% CODcr pH 6-9	40
	mg/L	100% CODcr pH 6-9	40
		99% 100% pH 6-9	100%
		95%	100%
		95%	
		100%	

4.3

4.3.1

4.3.1.1

pH 10-11 300-350mV 10-15min pH
7-8 600-650mV 10-15min

4.3.1.2

CN⁻ 0.2mg/L

4.3.1.3

4.3.2

4.3.2.1

pH 2.5-3.0 20-30min ORP 250-300mV

4.3.2.2

0.2mg/L

4.3.2.3

4.3.3

4.3.3.1

pH 6 15 20min

4.3.3.2

pH pH

4.3.3.3

4.3.4 +

4.3.4.1

pH 6.0 7.0 0.03 0.4μm -0.01 -0.03MPa

4.3.4.2

90% 95%

4.3.4.3

4.3.5 A/O

4.3.5.1

pH6.5 8.5 DO 0.2 0.5mg/L O A 20 35°C pH7 8 DO 2.0mg/L

4.3.5.2

CODcr 500mg/L CODcr 80% CODcr 100mg/L

4.3.5.3

4.3.6 A²/O

4.3.6.1

0.2mg/L A 4h 20 35°C pH6.5 8.5
0.5mg/L O A 2 4h, 20 35°C pH6.5 8.5 0.2
4h 20 35°C pH7 8 2.0 4.0mg/L

100% 300%

4.3.6.2

	CODcr	500mg/L		50mg/L	CODcr	80%	90%		80%
90%	CODcr50	100mg/L		5 10mg/L					

4.3.6.3

4.3.7

4.3.7.1

			3000	6000mg/L		2.0	4.0mg/L		
-0.01	-0.03MPa		HRT	4 6h		100%	300%		0.03 0.4μm

4.3.7.2

	CODcr	500mg/L	BOD ₅	200mg/L		50mg/L		5mg/L	
60mg/L	CODcr		80% 90%	BOD ₅	90%			80% 90%	
	70%	80%		70% 80%	CODcr50	100mg/L	BOD ₅	20mg/L,	5.0
10mg/L	1.0	1.5mg/L		18mg/L					

4.3.7.3

4.3.8

4.3.8.1

			15g/L			2.0mg/L			
0.5mg/L			-0.01	-0.03MPa		HRT	4 5h		100%
500%		0.03	0.4μm						

4.3.8.2

	CODcr	500mg/L	BOD ₅	200mg/L		50mg/L		5mg/L	
60mg/L	CODcr		95% BOD ₅		95%		90% 95%		90%
95%		90%	CODcr25	35mg/L	BOD ₅	10mg/L,	2.5	5.0mg/L	
	0.5mg/L		6mg/L						

4.3.8.3

4.3.9

4.3.9.1

	60%	75%		97%		0.9	1.7MPa		60%	90%
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4.3.9.2

20 40mg/L

0.4mg/L

4.3.9.3

4.3.10

3

	95%	CN ⁻	0.2mg/L		
	98%	0.2mg/L			
	98%				
+	95%	50%	60%		
A/O	CODcr CODcr	500mg/L 100mg/L	CODcr	80%	
A ² /O	CODcr 80% 100mg/L	500mg/L 90% 5 10mg/L	50mg/L 80% 90%	CODcr CODcr50	
	CODcr 50mg/L 80% 80% 80% 10mg/L	500mg/L 5mg/L 90% BOD ₅ 70% 100mg/L 1.0 1.5mg/L	BOD ₅ 200mg/L 60mg/L 90% 80% BOD ₅ 20mg/L, 18mg/L	CODcr 70% 5.0	
	CODcr 50mg/L 95% 95% CODcr25 0.5mg/L	500mg/L 5mg/L BOD ₅ 90% 35mg/L BOD ₅ 6mg/L	BOD ₅ 200mg/L 60mg/L 95% 10mg/L, 6mg/L	CODcr 90% 90% 2.5 5.0mg/L	
		20 0.4mg/L	40mg/L	1800μS/cm 50μS/cm	

4.4

4

	10% 90% 95%	5%	85%	(HF)

	95%	
	pH	90%
	96%	0.1% 0.2% 3 4s
	95%	40mg/m ³
	95%	50mg/m ³

4.5

5

	≥1300℃ “ ”	
	≥1455℃ “ ”	
	95%	

4.6

4.6.1

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4.6.2

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15

4.6.3

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“ ” “ ” “ ”

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COD

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4.6.4

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4.6.5

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-

4.6.6

-
-

4.6.7

-
-
-
-
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