

( ) : \_\_\_\_\_  
: \_\_\_\_\_

**: 2018 3**




1

1-1

**1-1**

		<b>t/a</b>	
1		2400	

**1-2**

1

2000

10

2017 7 28

[2017]34

<

>

682

2

1

(2011 )

<

2011

>

“ ” “ ”

2012

[2013]9

2012

[2013]183

[2015]118

2017

2

2012

2012

2013

2013

2015

( [2015]81 )

2012-2020

237

2001.05

3

SO<sub>2</sub> NO<sub>2</sub> TSP

GB3838-2002 IV

15

4.5km

[2015]84

1	2001	2013	

	2012 2011	
2	2012 2011	2001 2013
3		
4		
5		
6		
7		
8	1.5	
9		
10		
11		
12		

1+3

3

1-4

**1-4**

		/	/a	
			10	2496h

4

1

124.8t/a

99.84t/a

2

28 /

3

1-5

**1-5**

		3000m <sup>2</sup>	
		1000m <sup>2</sup>	1000m <sup>2</sup>
		550 m <sup>2</sup>	
		124.8t/a	
		99.84t/a	
		28 /	
		5t/d	
			-
			10m <sup>2</sup>
			50m <sup>2</sup>

5

8

8h

312

2496h

6

7



7

1

2

1

2

2

( )			
1			1
2-3.3m			
6			
2			
	3.7 /		14.4 1
0.8 7	27.2		39.3
-16.9	218		1016.5
79%	2188.2		958.5
	51.7%	7.8%	1441.4
	37%	11%	
20	6 19	7 8	200
<b>2-1</b>			
1			14.4
			39.3

			-16.9
2			3.7m/s
3			101.65kPa
4			79%
			85%
			76%
5			958.5mm
6			42mm
			1cm
			450pa
			8
7			E

3			
	1963km <sup>2</sup>	40%	
	2.83km/km <sup>2</sup>	1.5	m <sup>3</sup>
4			

1				
2016		425	11%	61.29
5.9%		29.32	15.2%	20
	334.43	19.6%		140
12%		26729		14348
10%	11%	2014		350

500-2000	17	600					
3							
			97.49%		0.19		
						3476	
3						85	
						8015	
2				2014			
	10				114		
" 14		8			3		
4							
	6.6				2020		4.5
m <sup>3</sup> /d							
			27.2				
1.25	m <sup>3</sup> /d		2013	2		2013	10
12		2017					2013
	1.25	m <sup>3</sup> /d				2.5	m <sup>3</sup> /d
	+	A2/O		+		+	
							(GB18918-2002)
A							

5						
15						
4						
4.5km						
2-2						
2-2						
					<b>m<sup>2</sup></b>	
			43			
			100			
		1000		20.22	0.77	19.45
		1000	2000			
			100			
		100	2000			
			100			
4.5km						

2018 1 27 28

2018

180202001

2017 3

13 3 19

500m						
1000m	7.42	7.6	19	0.514	0.15	
500m	7.45	9.1	18	0.483	0.14	
500m	7.40	11.8	20	0.554	0.16	0.1 1.28



		E	350	200	
		S	280	150	
		SE	1200	100	
		NW	1500	1500	
		-	-	-	-
		W	4.5km		

1

4-1

		$\mu\text{g}/\text{m}^3$	
SO <sub>2</sub>		60	GB3095-2012
	24	150	
	1	500	
NO <sub>x</sub>	24	100	
		250	
TSP		200	
	24	300	
PM <sub>10</sub>		70	
	24	150	

2

GB3838-2002 IV

4-2 (SS)

SL63-94

4-2

mg/L pH

IV 6 9 60 30 6 1.5 0.3 0.5

1

GB18918-2002 1

A

4-1

pH	6 9
BOD <sub>5</sub>	150mg/L
COD	400mg/L
SS	200mg/L
LAS	20mg/L
TP	4mg/L
NH <sub>3</sub> -N	35mg/L
	100mg/L
	20mg/L

4-2

GB18918-2002 1 A

pH mg/L

	pH	COD	SS	LAS		P		
	6 9	50	10	0.5	5(8)	0.5	1	
			12					≤12

3

GB12523-2011

4-3

dB(A)

70	55

GB12348-2008

3

4-4

dB(A)

3	65	55

4

GB 18599-2001

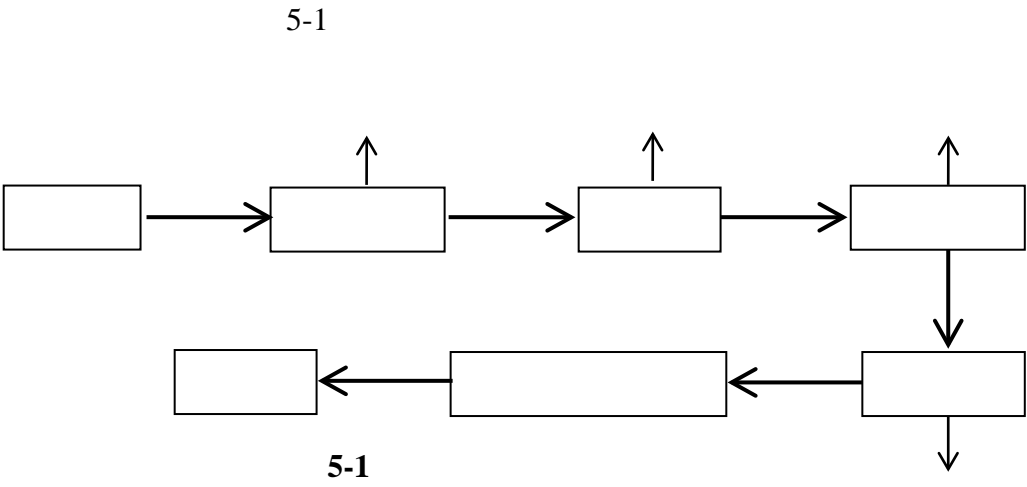
GB18597-2001

1  
0.02796t/a SS 0.01872t/a NH<sub>3</sub>-N 0.002496t/a 99.84t/a CODcr  
0.000398t/a  
99.84t/a CODcr 0.00499t/a SS 0.0009984t/a  
NH<sub>3</sub>-N 0.000499t/a 0.00004975t/a

2

1

2



1

2

3

5-1

5-1

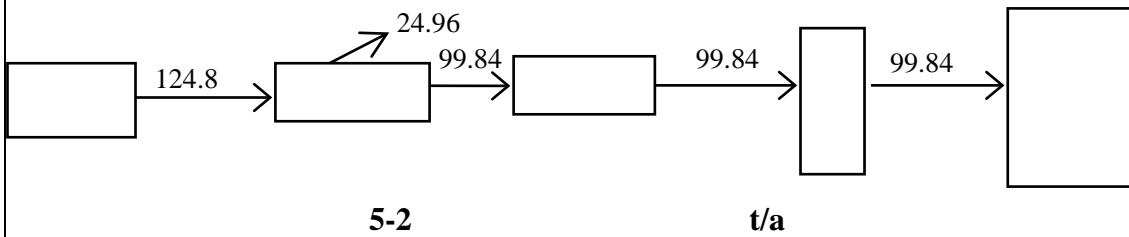
			COD SS
			/
			Al

1

8 0.8 50L/ .d 0.32m<sup>3</sup> 99.84m<sup>3</sup>/a

COD SS NH<sub>3</sub>-N

350mg/L SS 250mg/L NH<sub>3</sub>-N 25mg/L 4.0mg/L COD



5-2

	t/a						
			mg/l	t/a	mg/l	t/a	
	99.84	COD <sub>Cr</sub>	350	0.0349	280	0.02796	
		SS	250	0.02496	187.5	0.01872	
			25	0.002496	25	0.002496	

			4	0.000398		4	0.000398	
--	--	--	---	----------	--	---	----------	--

**5-3**

		dB(A)		( )	(m)		dB(A)
1		80	3		50	+	25
2		80	5		50		
3		75	2		50		

1

60t/a

2

3.0t/a

3

1.0kg/d.

8kg/d

2.5t/a

4

0.1t/a

5

0.01t/a

6

0.02t/a

**5-4**

					t/a	*	
1					2.5		
2					60		
3					0.1		
4					0.02		
5					0.01		
6					3.0		

5-5      5-6

**5-5**

										t/a
1										

1



2		HW49	900-041-49	0.01					12	T	
3		HW49	900-041-49	0.02					12	T	
				0.13	/	/	/	/	/	/	/
<b>5-7 t/a</b>											
				99.84				0			99.84
		COD		0.0349				0.00694			0.02796
		SS		0.02496				0.00624			0.01872
				0.002496				0			0.002496
		TP		0.000398				0			0.000398
				0.13				0.13			0
				63.0				63.0			0
				2.5				2.5			0

		mg/L	t/a		%	mg/L	t/a	t/a	
	CODcr	350	0.0349		0.20	280	0.02796	0.00499	
	SS	250	0.02496		0.25	187.5	0.01872	0.0009984	
		25	0.002496		0	25	0.002496	0.000499	
		4	0.000398		0	4	0.000398	0.00004975	
		t/a			t/a		t/a		
		60			60		0		
		3.0			3.0		0		
		0.02			0.02		0		
		0.1			0.1		0		
		0.01			0.01		0		
		2.5			2.5		0		



7-1

7-1

2

3

GB12348—2008 3

5dB(A)

5dB(A)

a.

$$L_{\text{oct}}(r) = L_{\text{oct}}(r_0) + 20 \lg r/r_0 = 'L_{\text{oct}}$$

$$L_{oct} = r \text{ ———}$$

$$L_{oct} = r_0 \text{ ———} \quad r_0$$

$$r \text{ ———} \quad m$$

$$r_0 \text{ ———} \quad m$$

$$oct \text{ ———}$$

$$A_{octbar} = 10 \lg \left\{ \frac{a}{3} \frac{1}{20N_1} \frac{1}{3} \frac{1}{20N_2} \frac{1}{3} \frac{1}{20N_3} \right\}^0$$

$$A_{octatm} = Dr = r_0 / 100$$

$$A_{exc} = 51g r = r_0$$

b.

$$L_{woct}$$

$$L_{cot} = L_{wcot} = 20 \lg r_0 - 8$$

c.

$$A = LA$$

$$L_A = 10 \lg \left\{ \frac{a^n}{\prod_{i=1}^n} 10^{0.1 L_{pi}} \right\} - L_i^0$$

$$oct = A$$

d.

$$L_{TP} = 10 \lg \left\{ \frac{a^n}{\prod_{i=1}^n} 10^{0.1 L_{pi}} \right\}^0$$

a.

$$L_{oct} = L_w = 10 \lg \left\{ \frac{Q}{4 \pi r^2} \right\} - \frac{4}{R} \cdot$$

$$L_{\text{Oct},1} \text{ T} = 10 \lg \left\{ \sum_{i=1}^n 10^{0.1 L_{\text{Oct},1 i}} \right\}$$

c.

$$L_{\text{cot},2} \text{ T} = L_{\text{cot},1} \text{ T} - \text{TL} - 6$$

d.

$$L_{\text{woct}} = L_{\text{cot},2} \text{ T} + 10 \lg S$$

e.

$L_{\text{woct}}$

f.

n

$L_i$

$L_p$

$$L_p = 10 \lg \left\{ \sum_{i=1}^n 10^{0.1 L_i} \right\}$$

7-1

7-1

dB(A)

				<b>m</b>			
		3	80	W50	Leqg(E):52.8 Leqg(S):52.8	Leqg(E):43.1 Leqg(S): 43.8	Leqg(E):55.7 Leqg(S):55.8
		5	80	W50	Leqg(W):52.7 Leqg(N):52.1	Leqg(W):45.9 Leqg(N):43.5	Leqg(W):57.3 Leqg(N):54.0
		2	75	W50			
					65		

25dB(A)

GB12348-2008 3

4

7-2

7-2

										t/a
1					Al	(GB 34330—2017)  2016	--	--	86	60
2							--	--	86	3.0
3							--	--	99	2.5
4					Fe		T	HW49	900-041-49	0.02
5							T	HW08	900-249-08	0.1
6							T	HW49	900-041-49	0.01

50m<sup>2</sup>

10m<sup>2</sup>

0.01t

GB18597-2001

1

2

70mm

3

GB18597-2001

1m

$10^{-7}$ cm/s

2mm

2mm

$10^{-10}$ cm/s

1

$10\text{m}^2$

0.13t/a

0.1t/a

0.02t/a

0.01t/a

50kg

$0.5\text{m}^2$

1



3

4

5

0.13t/a

GB18599-2001

GB18597-2001

6

0.13t/a

1

HW08

HW49

900-041-49

50

HW02 HW03 HW04

HW05 HW06 HW08 HW09 HW11 HW12 HW13 HW16 HW37 HW39

HW40 HW45 HW49 900-039-49 900-041-49 900-046-49 900-047-49

900-999-49

30000t/a

7-3

1			HW08	900-249-08		10m <sup>2</sup>		0.12t/a	
			HW49	900-041-49					

63.13t/a

2.5t/a

GB18599-2001

GB18597-2001

		CODcr		
		SS		
	75 80dB A			
	GB12348-2008 3			



3

4

GB12348-2008 3

65dB A

55dB A

3

8-6

**8-6**


8-7

**8-7**

”

					2	

				GB12348- 2008 3	
			10m <sup>2</sup>	GB18597- 2001	5
				GB18599-2001	1
			50m <sup>2</sup>		2
		COD SS TP			
		/	/	/	
					10

1 99.84t/a CODcr  
0.02796t/a SS 0.01872t/a NH<sub>3</sub>-N 0.002496t/a 0.000398/a  
99.84t/a CODcr 0.00499t/a SS 0.0009984t/a NH<sub>3</sub>-N  
0.000499t/a 0.00004975t/a

2

1

2

”

( )

pH COD SS

1

2016 1

2000

10

2

1

2011 9

2011

2013 21

<

> 2011

2

2012

2012

2013

2013

3

[2017]34

3

4

99.84m<sup>3</sup>/a



5

6

1 99.84t/a CODcr  
0.02796t/a SS 0.01872t/a NH<sub>3</sub>-N 0.002496t/a 0.000398/a  
99.84t/a CODcr 0.00499t/a SS 0.0009984t/a NH<sub>3</sub>-N  
0.000499t/a 0.00004975t/a

2

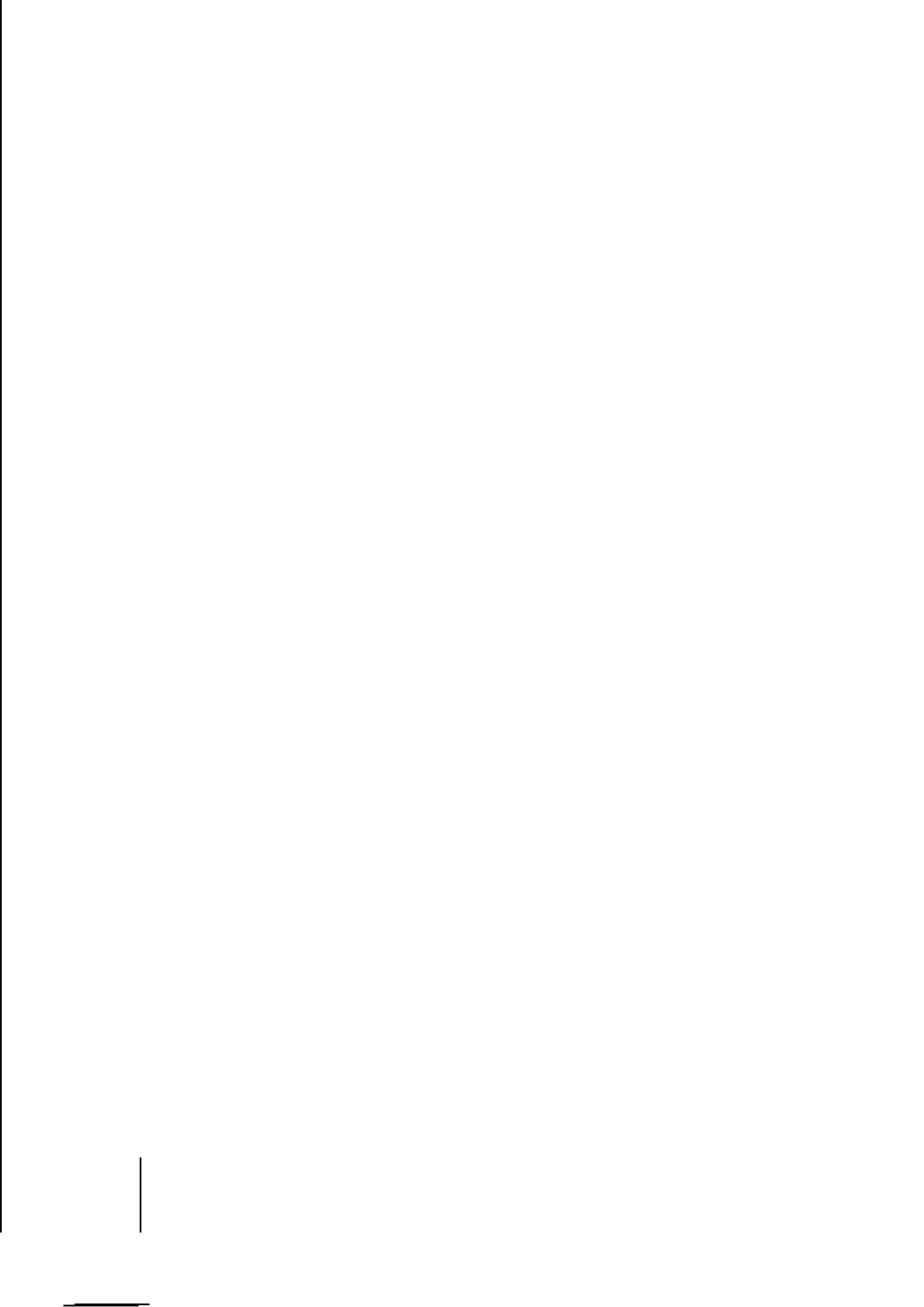
7

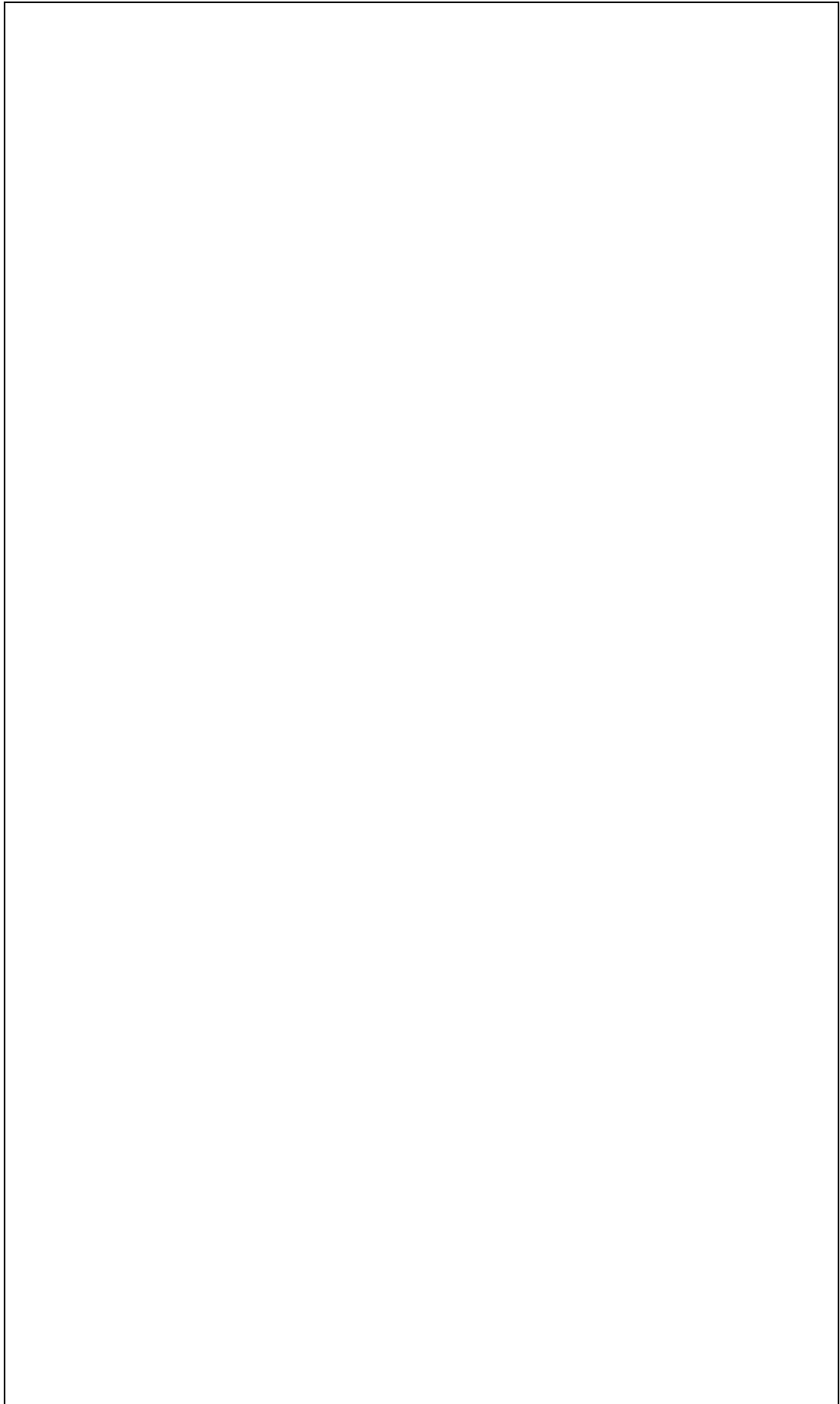
1

2

3

4





1

2

3

4

5

6

1

2

3

4

5

6

7

8

1—2

1

2

3

4

5

6

7