

<Table of Contents>

Executive Summary

**A. Analysis Volume**

I. Worldwide production volume of photoconductor (2008 - 2014)	1
1. Outline of overall	1
2. Outline of production volume by type	2
1) OPC photoconductor	3
2) Se type photoconductor	3
3) a-Si photoconductor	3
3. Production volume of shipment use (for hardware use / for consumable use) (2008-2014)	4
1) Overall	4
2) Ratio of third-party product among consumable use (2010)	5
4. World top 10 photoconductor manufacturers (share of production volume) (2009 - 2011)	6
1) Overall	6
2) Production share for OEM use	7
3) Production share for third-party use	8
5. Worldwide production volume by region, manufacturer and type	9
1) Worldwide production volume	9
(1) Overall	9
(2) Production volume by manufacturer	10
(3) Production volume by region and manufacturer	11
2) Production volume of Japan	12
3) Production volume of North America	13
4) Production volume of Europe	14
5) Production volume of Taiwan	15
6) Production volume of Korea	16
7) Production volume of China	17
8) Production volume of other regions	18
6. Worldwide production classified by region, manufacturer and application	19
1) Worldwide production volume	19
2) Production volume of Japan	20
3) Production volume of North America	21
4) Production volume of Europe	22
5) Production volume of Taiwan	23
6) Production volume of Korea	24
7) Production volume of China	25
8) Production volume of other regions	26
7. Use in coating materials of Japanese manufacturer	27
8. Production trend of drum tube for photoconductor	28
1) Change in production volume of drum tube for photoconductor	28
2) Change in production share of drum tube manufacturer	28
9. Production volume of OEM and third-party manufacturer (2010)	29
9-1. Worldwide production volume (2010)	29
9-2. Production volume of OEM/third-party by manufacturer (2010)	30
II. Photoconductor production sites	33

1. Production site of Japanese manufacturers by region	33
1) Overall	33
2) List of factories and addresses of photoconductor manufacturers	34
2. List of factories and addresses of overseas photoconductor manufacturers	36

## **B. Photoconductor Market Volume**

B-1. Trend of Japanese Manufacturers (2008 - 2014)	37
B-1-1. Figures of Japanese Manufacturers	37
1. Production volume of Japanese Manufacturers by type and application	37
1) Worldwide production volume	37
2) Domestic production volume	39
3) Overseas production volume	41
2. Production volume of each manufacturer by application, type and region (2008 - 2014)	43
1) All types	43
2) OPC	46
3) Se	49
4) a-Si	52
3. Production volume by diameter, application and type (2010)	55
4. Production volume and value by diameter and manufacturer (2010)	56
1) Overall volume (OPC for PPC / a-Si for PPC / OPC for printer / Se type for printer / a-Si for printer / OPC for FAX)	56
2) Overall value	63
5. Ratio of production volume and value by manufacturer and diameter (2010)	64
6. Production volume and value classified by diameter and manufacturer (2010)	69
1) All diameter drum	69
2) 20φ	71
3) 24φ	73
4) 30φ	75
5) 40φ	77
6) 60φ	79
7) 80φ	81
8) 90φ	83
9) 100φ	85
10) 108φ	87
11) 168φ	89
12) 240φ	91
13) 260φ	93
7. Production volume by length and manufacturer (2010)	95
1) Production volume	95
2) Production value	96
8. Production volume and value by diameter and length (2010)	97
1) Production volume	97
2) Production value	98
3) Proportion of production volume and value by length and diameter (A4~A0)	99
9. Production trend of Japanese manufacturer by application, type and region (2009-2011)	111

10. Demand volume of Japanese manufacturer by application and region (2009-2011).....	112
11. Demand volume of electrophotographic products by region (2009-2011).....	113
12. The relationships between Japanese hardware manufacturer and photoconductor manufacturer.....	114
1) Shipment conditions .....	114
2) Supply relations between PPC manufacturers and drum manufacturer.....	115
3) Supply relations between printer manufacturers and drum manufacturer .....	116
4) Supply relations between facsimile manufacturers and drum manufacturer .....	117
B-1-2. Japanese photoconductor manufacturer individual volume .....	119
<p>&lt;Common research subject&gt;</p> <ul style="list-style-type: none"> <li>*Production volume by region and production site (domestic and overseas)</li> <li>* Trend of production site (investment, future production line and base)</li> <li>*Production volume by diameter and application</li> <li>* Production volume, value and unit price by diameter and length.</li> <li>* Production trend of turned and non-turned tube</li> <li>* Production lineup by diameter * Production trend of positive and negative charge</li> <li>* Trend of long sized drum</li> <li>* Development and method, and lines of coating materials (UCL, CGL, CTL, OCL)</li> <li>* Trend in long life (+ OCL), high resolutions and high speed</li> <li>* Trend in small diameter and large diameter</li> <li>* Environmental practices (usage of electricity, water, solvent and amount of gas emission)</li> <li>* Effect of aftermarket photoconductors (U.S., Europe, China, Japan and others)</li> <li>* Production ratio by OEM and third party products</li> <li>* List of destinations * Worldwide production sites</li> </ul>	
1. Canon .....	119
2. Ricoh .....	133
3. Fuji Xerox .....	145
4. Konica Minolta Supplies Manufacturing .....	159
5. Kyocera Mita .....	165
6. Mitsubishi Chemical .....	177
7. Fuji Electric Systems.....	191
8. Yamanashi Electronics .....	204
9. Kyocera.....	215
10. Sharp .....	222
11. Panasonic .....	229
B-2. Trend of overseas manufacturers (2008-2014).....	232
B-2-1. Figures of overseas manufacturers .....	231
1. North America.....	231
2. Europe.....	233
3. Taiwan.....	235
4. Korea.....	237
5. China.....	239
6. Other regions.....	241
B-2-2. Outline of overseas manufacturers .....	243
1. Acodis (Korea).....	243
2. AEG (Germany).....	243
3. Alpha Chem (Korea).....	243
4. Baiksan OPC (Korea).....	243

5. CEMS (Korea) .....	243
6. Eastman Kodak/NexPress (US) .....	244
7. Gantech Opto-electronics (China) .....	244
8. GreenRich Technology (Taiwan) .....	244
9. Handan PhotoC Technologies (China) .....	244
10. Lexmark (US) .....	245
11. Neo Photocon (Korea) .....	245
12. Océ (Netherlands) .....	245
13. OPC Technology Japan Pvt. (India) .....	245
14. PARK & OPC (Korea) .....	245
15. Print-Rite(AEG Shanghai) (Hong Kong) .....	246
16. Sindoh (Korea) .....	246
17. Sinonar Corporation (Taiwan) .....	246
18. Suzhou Goldengreen Technologies (China) .....	246
19. Xerox (US) .....	246
20. Xerox do Nordeste S.A (Brazil) .....	247
21. Xerox Europe (Netherlands) .....	247
22. Xerox India (India) .....	247
23. Other manufacturers (Kirim Semitec, ULC International, Ink-Lab, and others) .....	247

### **C. Coating market volume**

1. Overall .....	249
2. CTL .....	250
2-1 Binder resin .....	250
1) Worldwide market (2010) .....	250
2) Supply relations of binder resin .....	252
2-2. CTM .....	253
1) Worldwide market (2010) .....	253
2) Share of each manufacturer .....	253
3) Type of CTM .....	255
4) Supply relations of CTM .....	255
3. CGL .....	256
3-1. Binder resin .....	256
3-2. CGM .....	256
4. UCL .....	256
5. OCL .....	257

### **D. Photoconductor core volume**

I. Total statistics .....	259
1. Production volume by photoconductor core manufacturer (2008-2014) .....	259
2. Production volume by diameter and length (2010) .....	261
3. Outline of the photoconductor industry (core, drawing, processing, coating) .....	262
1) Entering trend by manufacturing process .....	262
2) Main relationships between aluminum core manufacturers and processing manufacturers .....	263
3) Flowchart of the supply relation from aluminum tube manufacturers to coating manufacturers .....	263

4. Main relationship with photoconductor manufacturers (2010) .....	269
1) Overall .....	269
2) OPC .....	270
3) Se, a-Si .....	271
II. Individual trends of photoconductor core manufacturer .....	272
Common research subject * Production volume by region (Japan/overseas) * Production volume by diameter and length * Production volume of non-turned and turned tube * List of supply volume of drum manufacturers by production sites (worldwide) * Color capable photoconductor (runout, roundness, surface uniformity and surface roughness) * Relationship between processing and drawing manufacturers * Trend in production technologies (turned core and non turned core) * Trend in price * Production sites	
1. Showa Denko .....	272
2. Furukawa Sky .....	277
3. Sumikei Techno (former Sumitomo Light Metal) .....	282
4. Kobe Steel .....	286
5. Nikkeikin Act .....	291
6. Mitsubishi Plastics .....	295