



www.kipi.or.kr

2005. 3~4

NO. 60

Patent 21

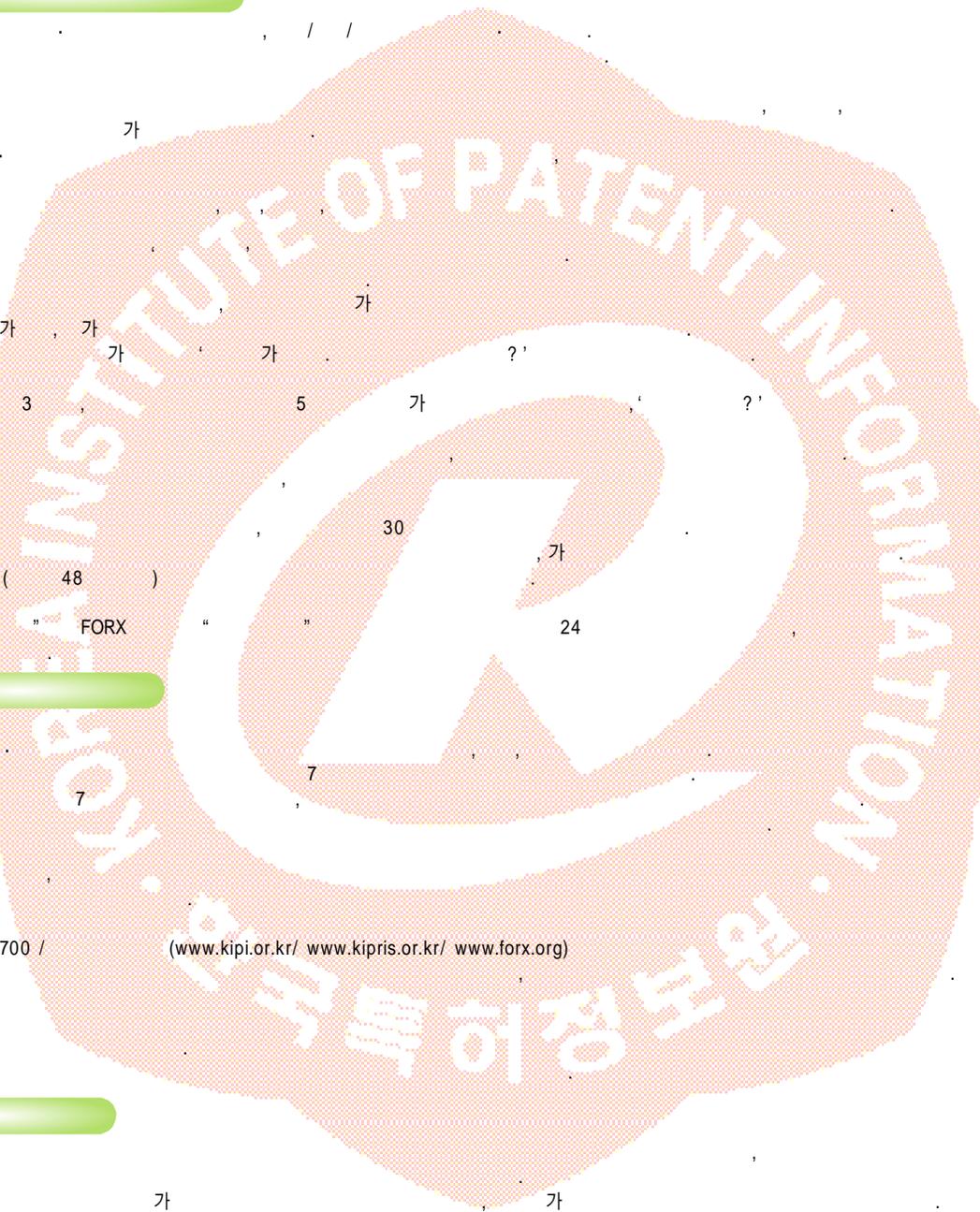
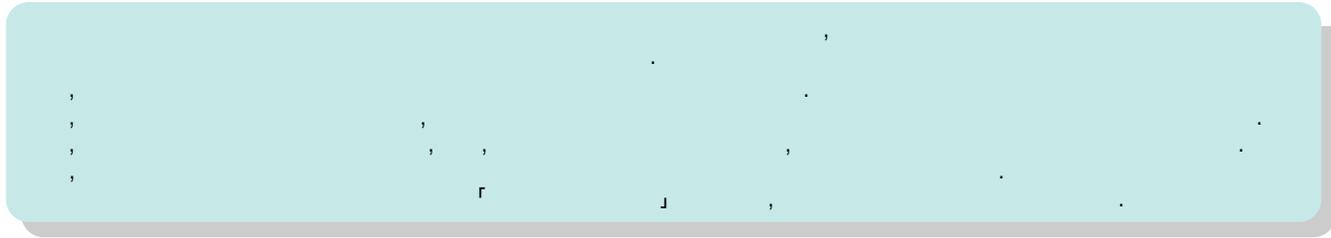
- 2004

- NT
- NT

- (R&D)
-

- • • • • • • • (Service Mark)

KIPI NEWS



가 1

가

3

가

가

가

가

가

가

3

5

가

가

가

30

가

24

(

48

)

- KIPRIS"

"

FORX

"

"

24

48

7

080-012-7700 /

(www.kipi.or.kr/ www.kipris.or.kr/ www.forx.org)

가

가

가



C ONTENTS



• 2004	2
--------------	---

• NT	14
• NT	21

• (R&D)	33
•	40

• (Service Mark)	42
------------------------	----

KIPI NEWS

• (KIPI),	47
• 가 . 가 ,	48
• PC	
• ,	
•	

2004

2002 「 2002」
 가 가
 가, R&D 가 (unification), 가 1
 가 1) 가 2) 3) 4)
 가 3
 가 16 232
 LQ
 2002 5 가 , 2003 「 2003」 2002
 , 2002 7 가 「 」 36
 (KIPO, www.kipo.go.kr :
) (KIPI, www.kipi.or.kr, FORX,
 www.forx.org :) 2002 (Quality) 가
 4 가
 가

1) Griliches, Z, "Patents Statistics as Economic Indicators : A Survey", Journal of Economic Literature. Vol. 18, No. 4, p1669(1990)
 2) 가 ()
 1 가
 3) (IPC, International Patent Classification) : 1954
 (WIPO) 가 1968 9
 4) 2 IPC 2 가

Herfindahl Index),
Rate),
가 HHI (Hirschman -
DR(Dependency
32
2003」
2004」
2004 12 「
2004」 2003
가
2004 7 2
1990
1990
「
2004」
WIPO

(Section)	(Subsection)	(Class)	
(A)	1	A01(A01N)	
	2	A21 ~ A24	
	3	가 A41 ~ A47	
	4	/ A61 ~ A63(A61K)	
	5	A61K(Subclass)	
(B)	6	/ B01 ~ B09	
	7	가 B21 ~ B23	
	8	가 B24 ~ B32(B31)	
	9	B41 ~ B44	
	10	/ B60~ B64·B65~B68	
	11	B81 ~ B82	
(C)	12	/ C01 ~ C05	
	13	C07·A01N(Subclass)	
	14	C08	
	15	/ C09~ C11	
	16	C12 ~ C14	
	17	/ C21 ~ C23·C25·C30	
(D)	18	D01 ~ D07	
	19	D21, B31	
(E)	20	E01 ~ E06	
	21	E21	
(F)	22	/ F01 ~ F04	
	23	F15·F16·F17	
	24	/가 F21 ~ F28	
	25	/ F41·F42·C06	
(G)	26	/ G01 ~ G03	
	27	G04~ G08	
	28	G09~ G12	
	29	G21	
(H)	30	/ H01·H02·H05	
	31	/ H03·H04	
	32		

		2002	2003	2004	2002	2003	2004
					x		
					x		
					x		
					x		
		-	-	-	x		
		-	-	-	x		
	가				x		
					-	-	-
		x			-	-	-
					x	-	-
					x	-	-
		-	-	-	x		
		-	-	-	x		
		-	-	-	x		
	IPC				x		
	IPC				x		
					x		
	가				x		
					x		
		x	x		-	-	-
		-	-	-	x		
		-	-	-	x	x	
		-	-	-	x	x	
		-	-	-	x	x	
		-	-	-	x	x	
		x	x		x	-	-
		x	x		x	-	-
		x	x		x	-	-
		x	x		x	-	-
		-	-	-	x	x	
					x		

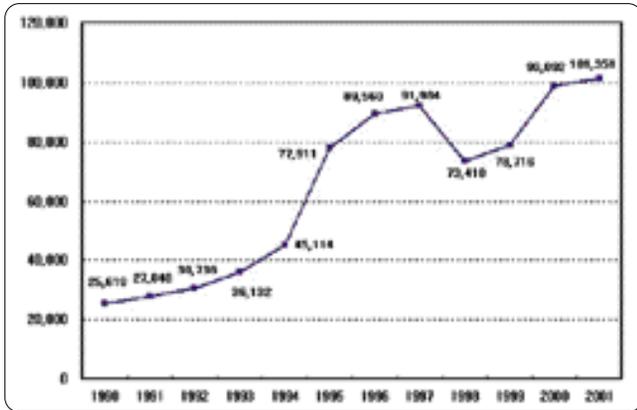
< 2. >

-)1.
- 2. " - " , " x " 가 , " " 가 .

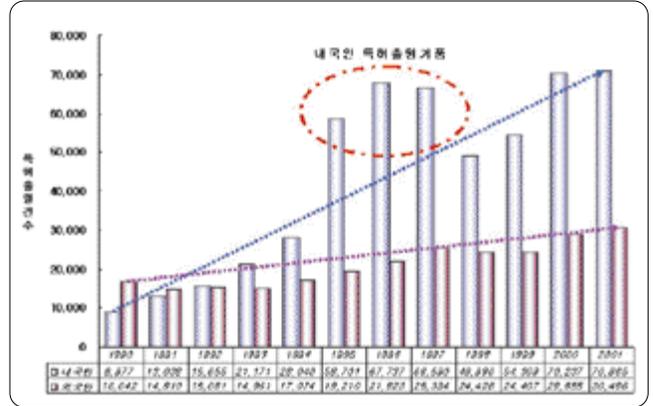
. '90 25,000 2001
 100,000 12 가 4 가
 3.1 가 . '90 46 가 2001
 62 가 가
 '90~2001 가 가
 .

가

< 1> < 3>



< 1. >



< 2. >

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
가	46	46	49	55	56	55	55	61	65	58	68	62

< 3. 가 >

2003 12 31

2004 4 10

< 2 >

'90

, '95

2

가

5

6)

, '97

'98

2000

가

가

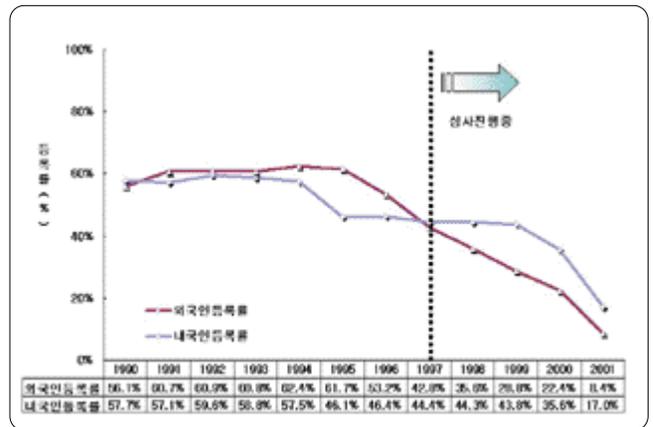
5) < 3 >

'90~'93

60%

, '95

가 10%



< 3. >

5)

2003

5

2

'96

'97

'97

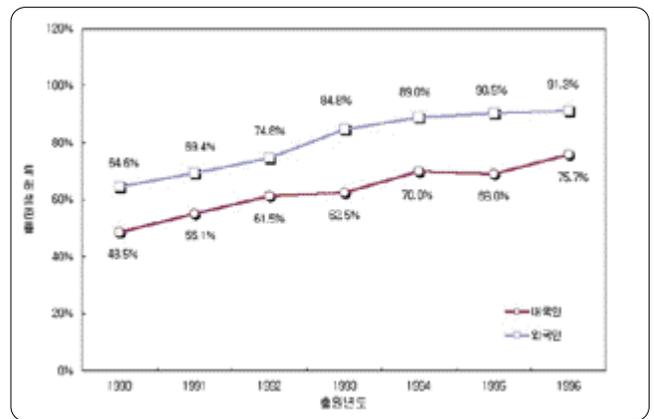
6) <http://www.etnews.co.kr/news/print.html?id=200411210053> (2004. 11. 22)

'90~2001
 가 < 4>
 가 1 2 가 10%
 3

가 53,686 (10.2%) /
 20,505 (8.1%)
 가 가
 29.9% / 10.0% /
 가 1.0

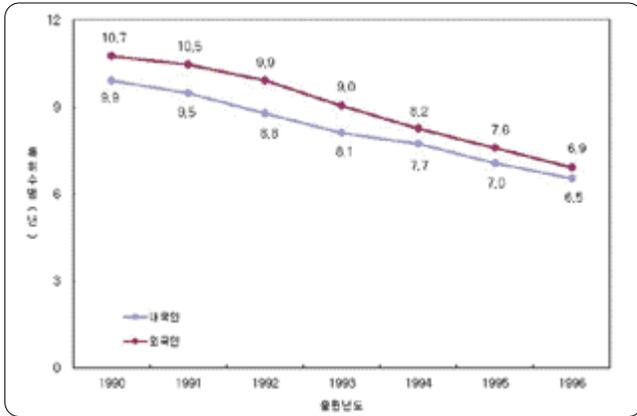
			가			가	
/	93,691	17.9%	18.7%	41,601	16.4%	10.0%	0.44
/	81,918	15.6%	18.8%	21,993	8.7%	10.0%	0.27
/	53,686	10.2%	29.9%	13,332	5.3%	2.7%	0.25
	43,075	8.2%	25.9%	13,258	5.2%	9.4%	0.31
	35,016	6.7%	15.4%	15,419	6.1%	7.0%	0.44
/	29,303	5.6%	22.9%	18,291	7.2%	8.5%	0.62
/가	23,172	4.4%	24.6%	4,571	1.8%	1.6%	0.20
/	18,525	3.5%	27.5%	6,971	2.8%	4.2%	0.38
	12,208	2.3%	25.5%	6,880	2.7%	3.6%	0.56
	11,686	2.2%	27.0%	2,958	1.2%	3.0%	0.25
	10,907	2.1%	12.8%	4,045	1.6%	0.0%	0.37
/	10,438	2.0%	19.2%	5,205	2.1%	2.3%	0.50
가	10,018	1.9%	26.8%	5,755	2.3%	2.0%	0.57
가	9,984	1.9%	24.7%	3,077	1.2%	4.7%	0.31
	9,934	1.9%	16.9%	1,989	0.8%	-1.7%	0.20
가	9,660	1.8%	17.7%	7,064	2.8%	1.8%	0.73
/	7,662	1.5%	20.3%	5,385	2.1%	5.4%	0.70
	7,638	1.5%	11.2%	12,261	4.8%	0.1%	1.61
/	7,266	1.4%	26.9%	6,971	2.8%	4.1%	0.96
/	7,165	1.4%	28.3%	7,582	3.0%	8.4%	1.06
/	5,421	1.0%	14.0%	7,401	2.9%	3.5%	1.37
	5,226	1.0%	20.1%	9,499	3.8%	7.0%	1.82
	5,141	1.0%	7.1%	2,974	1.2%	1.9%	0.58
	5,118	1.0%	13.7%	20,505	8.1%	1.2%	4.01
	4,068	0.8%	17.8%	4,126	1.6%	6.1%	1.01
	3,906	0.7%	26.4%	1,197	0.5%	7.7%	0.31
	972	0.2%	14.9%	1,333	0.5%	3.9%	1.37
/	587	0.1%	14.4%	547	0.2%	3.0%	0.93
	445	0.1%	29.4%	261	0.1%	-1.8%	0.59
	383	0.1%	27.9%	670	0.3%	-7.0%	1.75
	91	0.0%		50	0.0%		0.55

, BT
 가가 BT
 '90~'96
 8) 9) < 4> < 5>
 '96
 91.3%가

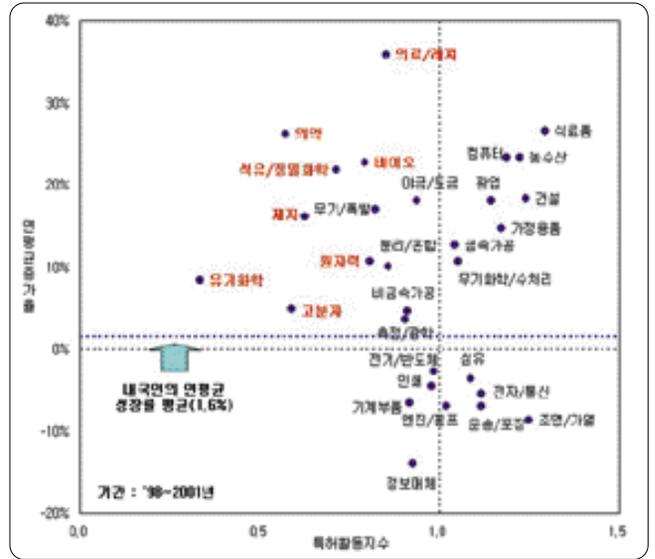


< 4. >

7) '99 () p653
 8) 20 가 3 가 가 2004
 4 10
 9) 가 20 가



< 5. >



< 6. vs >

'98~2001
(Activity Index)

가 < 6> < 7>
가

가

1

가 가 (=1.6%)

가

가 가

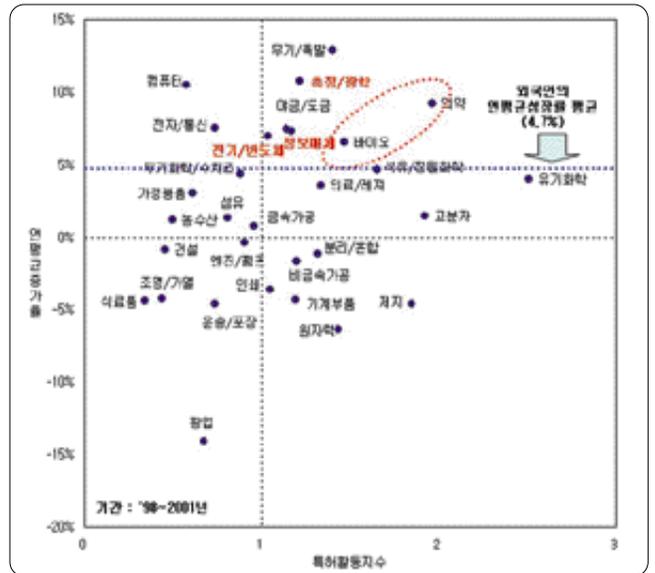
< 4>

가 1.0 8

가

(=1.6%)

15% 가



< 7. vs >

BT

가
DVD

가

가

가

가

가

< 5>

, '90~2001

가

20.1% 가

15%

가

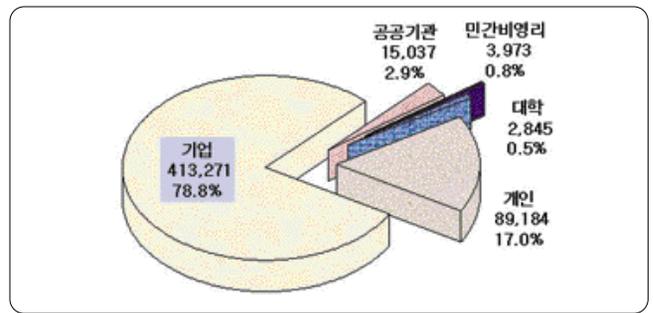
'90~2001 20 가 3.2

11) < 11 > 58.8%
 12) 가 가 89.7% 가
 가 가

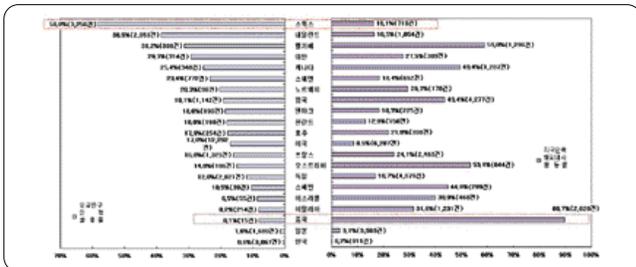
'90~2001 524,310 가
 78.8% (413,271)
 , '90~'96 88.6% 가 85.9%,
 70.5%

< 12 > 13% ,
 19% 가 가 , IT
 4% 5% / /
 2%

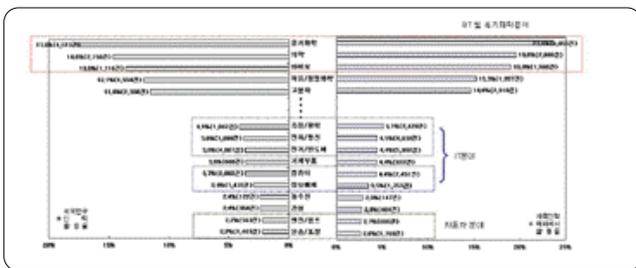
13) 11.4% , 17.1% 가
 가 14)



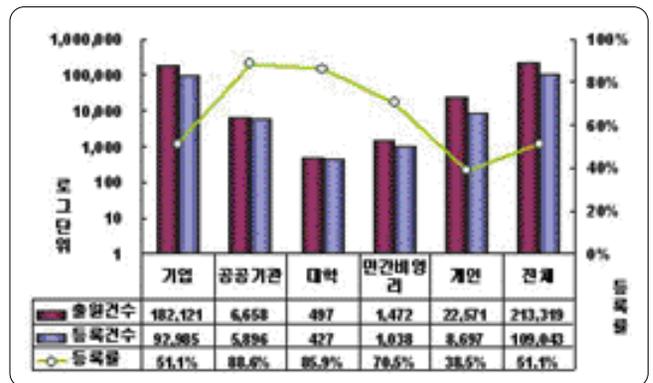
< 13. >



< 11. 가 >



< 12. >



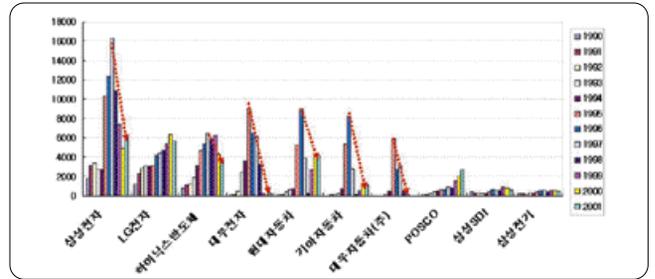
< 14. >

11) () 가 .

12) 가 .

13) 2004 7 2

14) R&D , 2004. 02. 13 .



< 16. >

< 15. >

< 2 > 가

'98

'96

< 6 > ,

19,383 95

가

10

'97

가

가 LG POSCO 가

'98

가

3

(quality)

15)

가

, M&A

'99

가

WIPO 32 1 <

7> , 가

IT , / / , /

6 1 , POSCO

/ 가 , /

, / , / 5

1 .

/ , / 5 1

, 가 가

가

1	1	1	
			/
			가
	POSCO		/
/			가
/			
/			
가		CJ	
/가		LG	
	KIST		

< 7. >

1 90~2001

2. 1

3. 1

	1996	1997	1998	1999	2000
	61,058	58,255	38,872	39,193	45,847
	1,187	1,550	1,584	1,706	1,592
	141	204	327	480	627
	471	585	490	523	418
	4,886	5,996	7,717	12,407	21,753
	67,737	66,590	48,990	54,309	70,237

< 6. >

2

'90~2001

5.4% 524,310 2

28,190

가

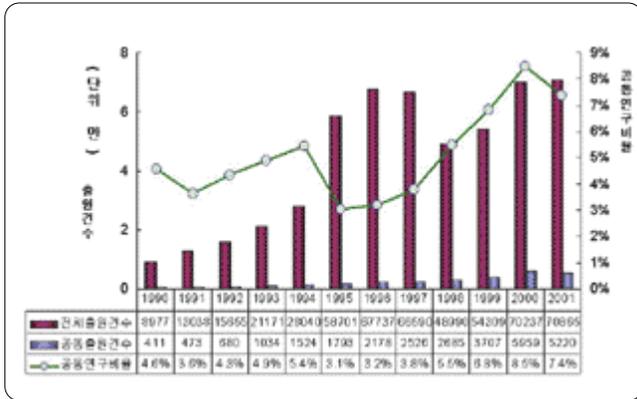
'91 3.6% 2001 7.4%

가 '95~'97

3%

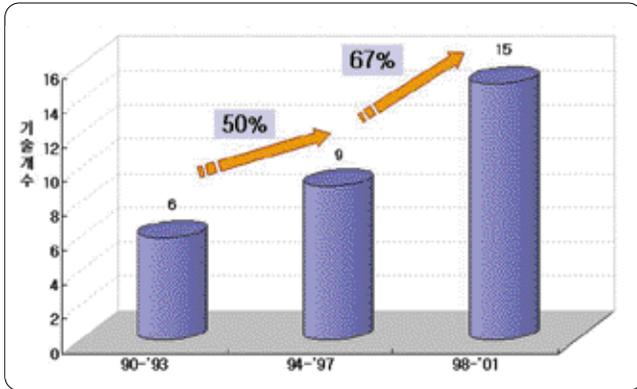
가

15) 2000.1.14



< 17. >

< 18>
 기술개수, '90~'93 6
 가, '94~'97 9, '98~'01 15
 150% 가
 가 '90~'93



< 18. >

	'90 ~ '96			()	'90 ~ '2001	
	()	()	(%)		()	(%)
	5,255	3,726	70.9	8.0	1,368	10.1
	109,043	73,894	67.8	7.8	25,310	11.4

< 8. >

< 9>
 가 ,
 가

	'90 ~ '96			()	()	'90 ~ '01		
	()	()	(%)			()	(%)	
-	1,659	1,488	89.7	1,428	96.0	7.7	76	2.8
-	1,722	1,441	83.7	875	60.7	8.7	46	2.0
-	891	559	62.7	422	75.5	7.7	307	17.8
-	87	70	80.5	62	88.6	7.9	8	3.1
	8,093	5,255	64.9	3,726	70.9	8.0	1,368	10.1

< 9. >

3.3

16
 30.1%(156,944), 33.8%(176,163)
 5.5%(28,427)
 70%(361,534)
 88,070 가 16.9%
 '98~2001 가 ()

¹⁶⁾

가 , '90~'93 45.3%, '94~'97
 30.4% '98~2001 35.5% 가

< 8>
 가 70.9% 67.8%
 0.2
 가 11.4% 10.1%

16) '97 3,867 '98 197

		(%)	가 (%)		
			'90~'93	'94~'97	'98~'01
	156,944	30.1	26.0	23.9	3.1
	28,427	5.5	82.8	31.3	-15.2
	176,163	33.8	35.4	45.2	-2.7
	361,534	69.3	32.6	34.1	-1.3
	28,355	5.4	27.7	32.1	3.2
	12,913	2.5	51.2	31.5	9.5
	7,997	1.5	24.0	58.7	13.4
	49,265	9.4	32.2	34.8	6.6
	7,684	1.5	65.2	36.8	9.7
	6,465	1.2	26.7	43.0	10.2
	5,035	1.0	45.3	30.4	35.5
	19,184	3.7	45.4	37.4	16.0
	12,060	2.3	20.9	26.7	10.1
	12,868	2.5	20.5	22.9	11.0
	14,173	2.7	65.6	30.4	-2.3
	29,885	5.7	33.8	29.3	5.7
	19,084	3.7	48.1	27.4	7.4
	88,070	16.9	35.0	27.8	6.3
	2,731	0.5	46.7	33.5	23.7
	674	0.1	21.1	34.9	19.5
	3,405	0.7	40.8	33.7	23.0
	521,458	100.0	33.4	33.2	1.6

< 10. 가 >
'97 17) 2001
10
< 11> , 10
189.3 138.0

가
'98 가
(KAIST) 가
가 14,129 가
가

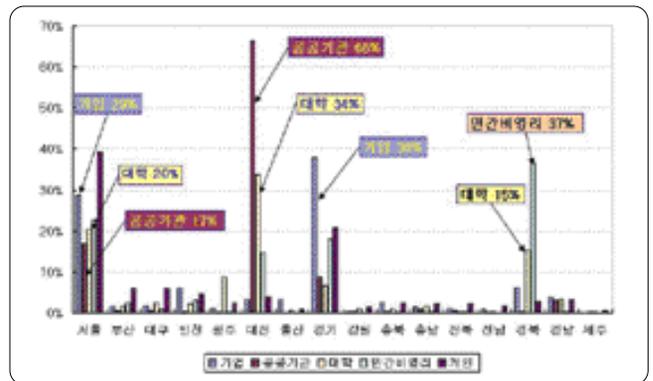
가 37.9%(155,559) 28.7%(118,017)

가 66%(9,980) , , 34%(950)

	1997	1998	1999	2000	2001	
	170.7	133.8	136.9	213.5	194.3	169.8
	176.1	87.8	65.4	84.2	86.9	100.1
	299.8	206.0	211.8	231.2	237.6	237.3
	222.8	157.7	159.5	206.0	200.5	189.3
	266.5	237.1	272.9	263.4	284.4	264.9
	96.0	99.8	120.5	131.5	135.5	116.7
	48.3	53.8	65.9	74.8	78.8	64.3
	124.7	120.1	142.1	146.8	156.2	138.0
	77.3	49.6	61.1	109.9	107.1	81.0
	37.7	24.0	35.6	56.5	55.5	41.9
	18.4	16.2	35.0	53.7	64.0	37.5
	39.7	27.2	41.7	68.7	71.7	49.8
	34.2	26.2	36.4	55.3	51.3	40.7
	51.3	49.3	63.4	77.7	76.7	63.7
	158.2	25.1	89.0	158.9	137.9	113.8
	133.0	102.0	124.2	141.4	166.5	133.4
	75.6	60.1	72.9	90.6	98.6	79.6
	77.4	54.4	72.7	94.1	98.4	79.4
	16.3	13.0	22.4	36.1	37.7	25.1
	10.0	14.6	26.5	25.2	19.7	19.2
	14.70	13.40	23.48	33.30	33.02	23.58

< 11. 10 >
, 20%(574) 15%(432)

POSCO
가 37%(1,450) , 가



< 19. >
'90~2001

521,458 70,913 13.6% , 가 53,150

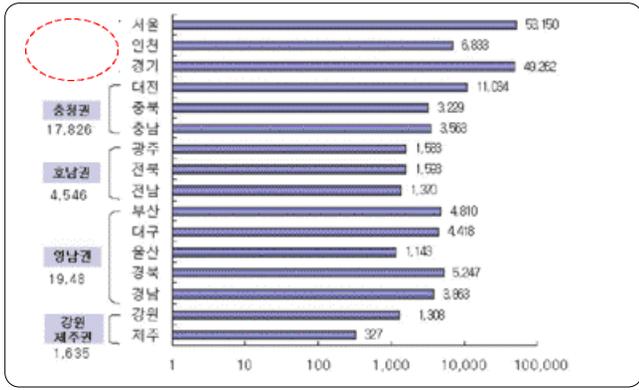
17) 1997 7 15

1997

(www.nso.go.kr) 1997

가 49,262 1, 2
11,034 가
가

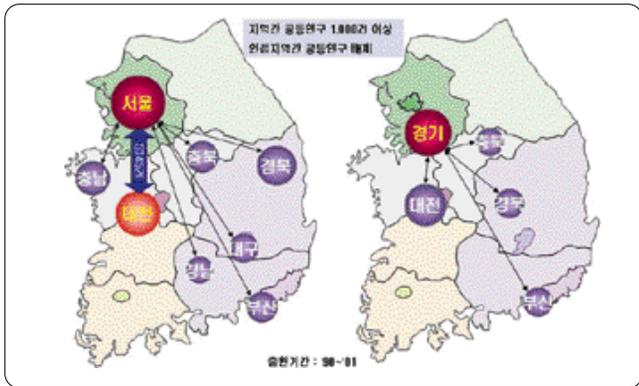
5



< 20. > ['90~2001]

< 21 >

가



< 21. >

2001 가 '90 4 가
가 '90 46 60
'90~2001 가
'95~'97

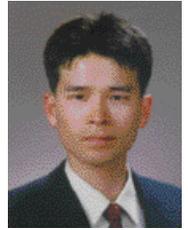
BT () IT
BT 가 가 IT
가 가 가

'90 4%
가 2001 7% 10%
'90~'93 6 '98~2001 16

33.8%(176,163)
30.1%(156,944),
5.5%(28,427)
70%(361,534)
88,070
16.9%
'90~2001
521,458 70,913 13.6%
가 53,150 , 가 49,262
1, 2
11,034 가 가

< >
1. Griliches, Z., "Patents Statistics as Economic Indicators : A Survey", Journal of Economic Literature. Vol. 18, No. 4, p1669(1990)
2. <http://www.etnews.co.kr/news/print.html?id=200411210053> (2004. 11. 22)
3. ' R&D ' , 2004. 2. 13 .
4. 2000. 1. 14 .

NT



1.

NT, BT, IT
가

가 가가

가

(TRM)

가

가가

가

가

NT

가

가

NT

「NT

」 「NT

2.

「NT」 2003. 12. 31

		가	
			2,386
			6,376
	(EPO)		6,031
		'91~2003	22,052

< 1.

>

, NT

4

15

4

NT

NT

1.

NT

2)

'90

가

가가

SDI,

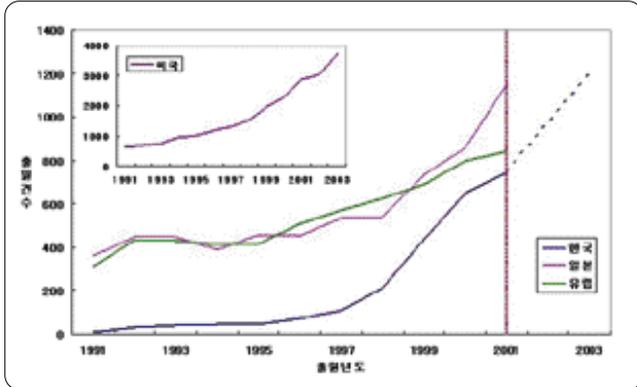
Japan science & Technology corp.(

)

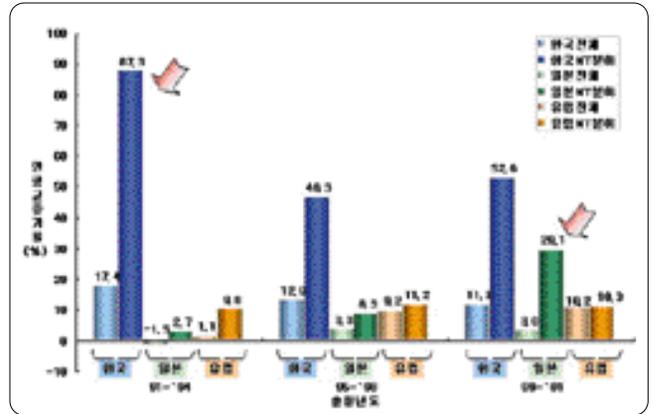
가

1) (EPO) (EPO) EPO
2) , , 18

, EPC contracting states
2002~2003



< 1. () >



< 3. NT 가 >

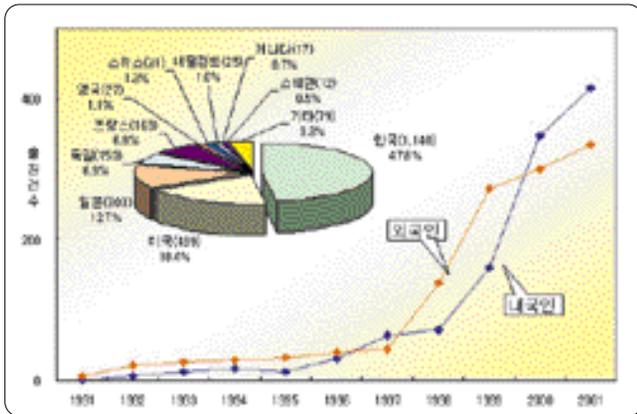
NT 가

15% 가 , (2001-2003)
) 가 NT
 가 7

'92
 (2004) NT
 2000
 (18.4%), (12.7%), (6.3%), (6.8%)
 44.2% (47.8%)

	가 (%) -		
	'91-'96	'97-'00	2001-2003
NT	3.2	9.5	2.5
	15.0	18.4	17.4

< 2. NT 가 >



< 2. NT >

NT
 '91-'94, '95-'98, '99-2001 3
 가 4 가
 ('99-2001) 가
 NT

2. NT 가
 가 () ()
) 3 1.0%(217) ,
 1.3%(86) , 1.0%(59)
 가 ()
) 14.2%(2,554) , 22.7% (1,372)
) ()
 3 (, ,) (18.4%)
 (18.6%)
 NT ()
 3 1%
 NT (IPR)

가	()			
	15,221 (69.0%)	290 (4.5%)	2,373 (39.3%)	439 (18.4%)
	3,141 (14.2%)	5,752 (90.2%)	1,372 (22.7%)	303 (12.7%)
	2,554 (11.6%)	230 (3.6%)	2,048 (34.0%)	444 (18.6%)
	217 (1.0%)	86 (1.3%)	59 (1.0%)	1,140 (47.8%)
가	919 (4.2%)	18 (0.3%)	179 (3.0%)	60 (2.5%)
	22,052 (100%)	6,376 (100%)	6,031 (100%)	2,386 (100%)

< 3. () >

() 가
1, 7, 4, 11
()

가 () 가 , , ,
가 , , , , ,

	가	가	가	가
1	1,140	15,221	5,752	2,373
2	439	3,141	290	1,372
3	303	840	113	694
4	163	726	86	609
5	150	347	68	166
6	31	235	15	162
7	27	217	9	113
8	25	204	9	90
9	17	160	5	63
10	12	155	4	61
11	11	119	4	59
12	9	105	2	46
13	9	81	2	35
14	8	80	2	29
15	7	51	2	22
16	5	39	2	20
17	5 가	39	2	16
18	4	39	2	12
19	4	37	2	12
20	4	36 가	1	8
	13	180	4	69
	2,386	22,052	6,376	6,031

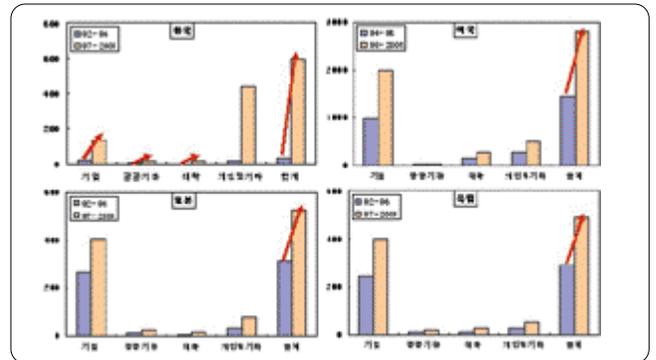
< 4. () 가 >

, NT
가 , 가
가 .1 2 ()
975 , 32 , 228 , , , 391 ,
가 509 4 가
NT
가 .

	1	2	가	1	2	가	1	2	가	1	2	가
	19	131	112	977	1,985	1,008	266	408	142	245	400	155
	3	11	8	37	39	2	13	24	11	8	17	9
	1	15	14	154	274	120	5	18	13	12	26	14
/	11	439	428	279	497	218	29	77	48	25	48	23
	34	596	562	1,447	2,795	1,348	313	527	214	290	491	201
	118	509	391	631	1,606	975	100	132	32	487	715	228

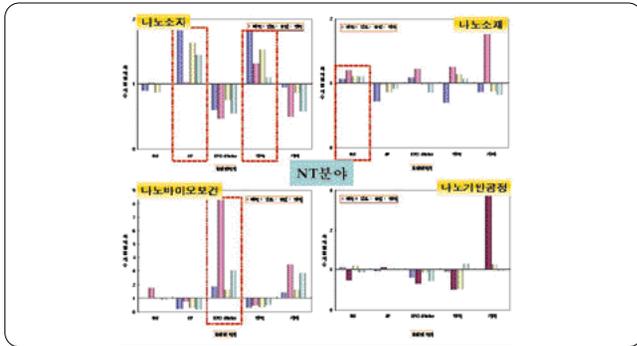
< 5. 가 가 >

- : , , '92~'96 (1) , '97~2001 (2)
'94~'98 (1) , '99~2003 (2)



< 4. 가 >

가



< 5. >

1	IBM	642	Hitachi	508	L'Oreal(FR)	226	SDI	115
2	Xerox	560	NEC	243	Xerox	122		93
3	3M	503	JEOL	229	IBM	118	LG	83
4	NEC	433	SONY	210	Matsushita Electric	117		76
5	Motorola	318	CANON	207	Eastman Kodak	108		76
6	Micron Technology	294	Matsushita Electric	201	CANON	105		56
7	University of California	285	Seiko	176	ROHM AND HAAS(US)	87		54
8	Toshiba	285	OLYMPUS	171	Sumitomo Electric	76		39
9	Advanced Micro Devices	252	Japan Science & Technology	154	NEC	70	IBM	38
10	Eastman Kodak	242	FUJITSU	136	Hitachi	68		33

< 6. 가 Top10 >

NT

1. NT

NT
가

가가

NT

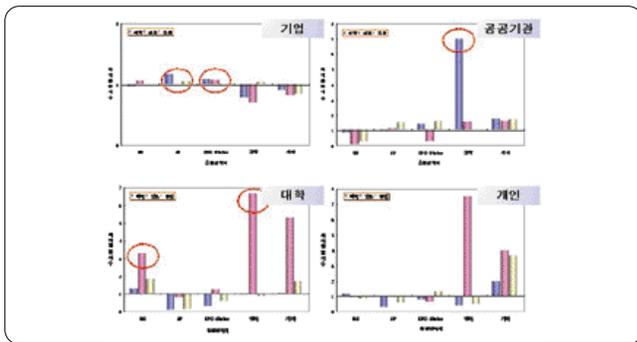
NT

가

IT

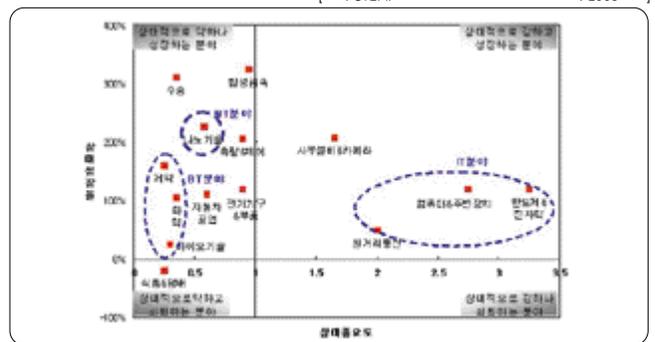
가

, BT



< 6. >

IBM NEC , NT
 (IBM: 118)
 NEC: 70) (IBM: 38)
 가
 Hitachi , L'Oreal , SDI
 IT 1



< 7. NT >

3) University of California : 1868
 (UCLA)

California 9

(州立)
 가

NT

Research

가

(5.97)

가

가

가

가

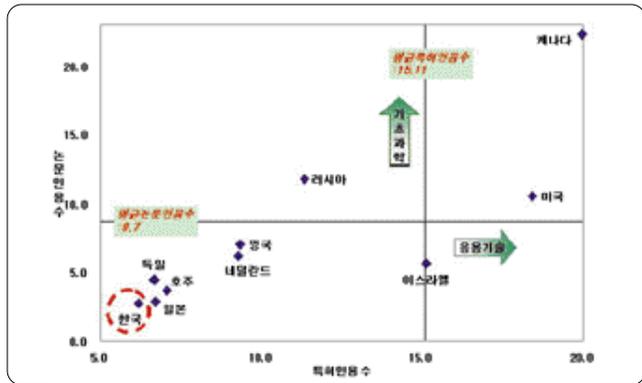
가

가

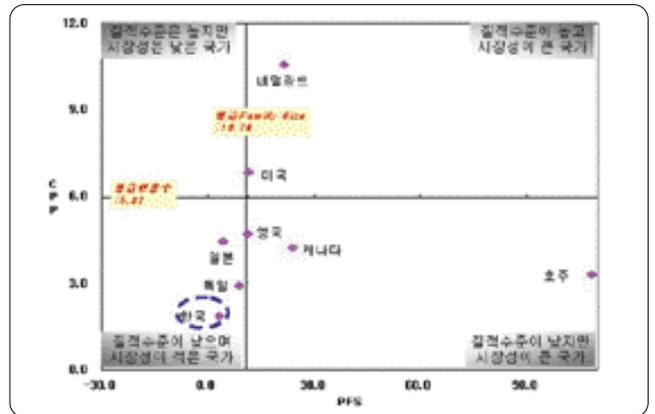
D - Wave Systems,

Factors R&D Technologies

가



< 8. NT 가 >



< 10. 가 >

2.

NT

, NT

2000

4

NT

가

가

가

가

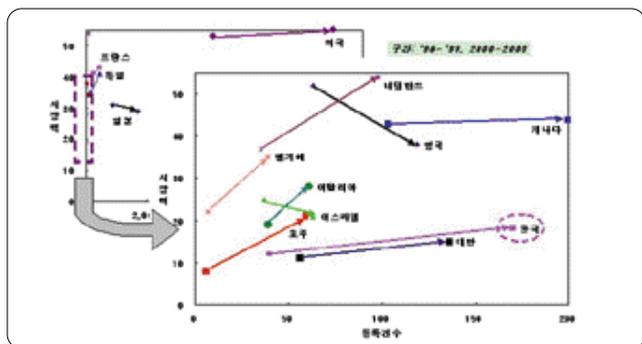
가

(49.9%)

(31.2%)

80%

3



< 9. >

(10.76)

가

가

가

가

가

가

, NT

Backward Citation

가

가

NT

가

가

, NT

가

가

가

Silverbrook

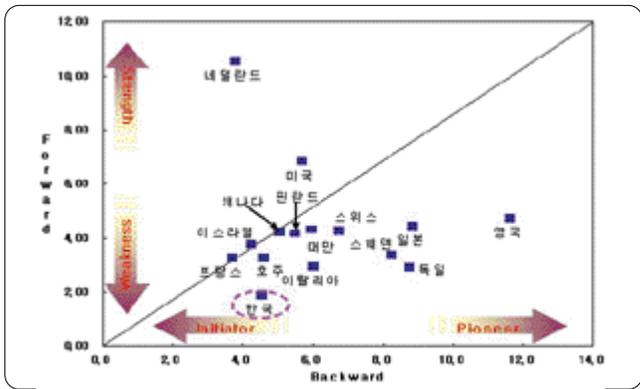
Forward Citation

CH	NL	TW	KR	GB	CA	DE	FR	JP	US			US	JP	FR	DE	CA	GB	KR	TW	NL	CH
0.9	0.5	0.7	0.4	1.9	1.0	4.2	1.6	15.3	70.2			78.7	9.4	1.0	2.5	1.1	0.9	1.4	1.4	0.5	0.5
0.3	0.1	1.1	1.5	0.9	0.6	2.5	1.2	49.8	40.4			44.1	41.3	0.8	2.2	0.8	0.4	4.7	2.8	0.5	0.2
1.1	0.5	0.6	0.4	2.1	0.9	5.5	20.9	15.9	48.8			52.6	9.5	21.7	6.1	1.2	1.5	0.9	1.1	1.2	0.7
1.1	0.9	0.6	0.5	2.0	1.3	17.3	2.8	16.5	53.0			55.2	10.1	1.4	20.0	0.9	1.3	1.3	1.7	0.8	2.5
0.5	0.4	0.2	0.3	3.1	5.9	3.7	2.8	15.4	61.0			62.7	7.2	1.6	2.5	17.2	1.5	1.1	1.6	0.5	0.5
0.6	0.5	0.3	0.1	7.9	2.1	5.2	2.8	14.4	60.2			54.1	21.9	1.1	5.6	2.0	8.4	1.4	0.9	0.3	0.4
0.2	0.1	3.2	6.6	1.1	1.4	2.6	1.3	31.2	49.9			46.1	20.7	0.5	2.0	2.5	-	18.0	6.9	0.7	0.5
0.6	0.2	13.7	5.2	0.9	0.6	1.0	1.0	22.2	51.5			45.7	15.1	0.6	1.6	1.1	0.1	10.5	22.0	0.3	-
2.1	6.8	0.4	0.4	3.3	1.7	8.6	2.6	13.9	53.3			85.1	2.7	0.8	1.6	0.9	2.0	0.5	0.2	3.5	0.1
10.3	0.6	0.2	0.4	3.1	1.1	5.3	1.6	15.4	57.4			60.4	7.6	3.8	7.0	2.0	0.9	0.3	0.5	1.4	9.6

< 7. 가 >

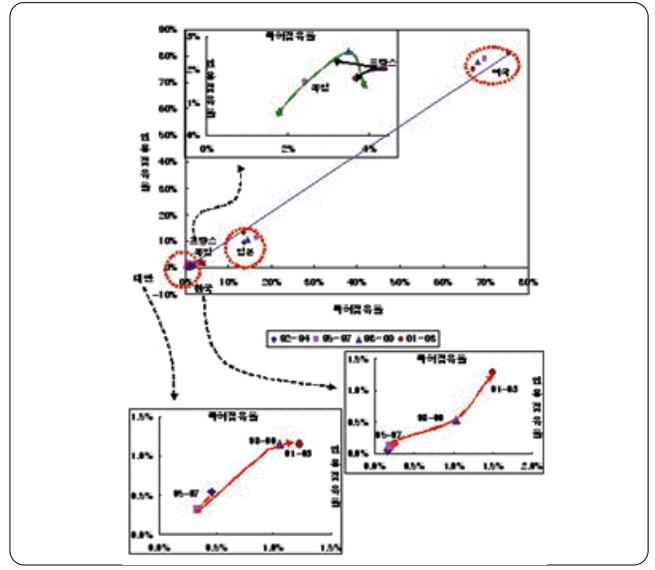
가 가 가 , 가 가 가 가 가 가

7 가 가 , 12 가 가 , 가 (2,204) 가 가



< 11. 가 >

가 79% 가 NT



< 12. 가 >

4) (STEPI, 2003)

NT



1.

NT

가

가 1)

15

•	•	•	•
•	•	•	•
•	•	•	•
	•		•
	•		•

< 1. 15 >

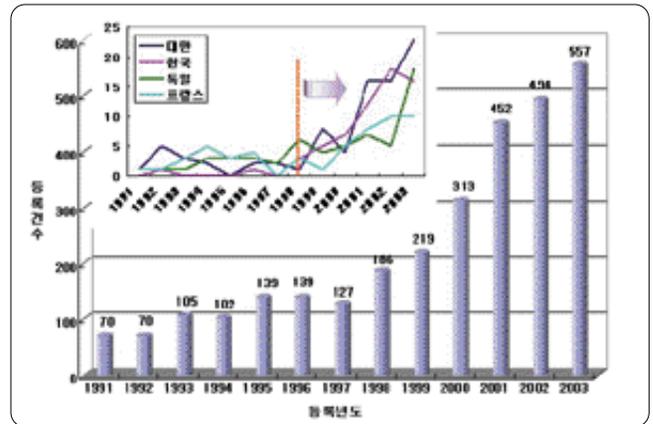
1.

1)

'98

'98

가 가



< 1. >

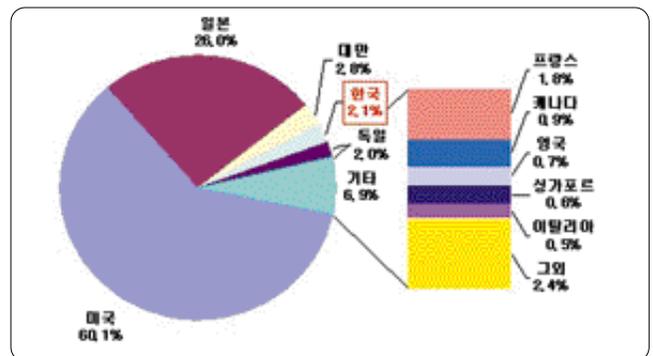
2)

가 (1,788 , 60.1%) (774 , 26%)

86%

NT 7 가 ,

4 가

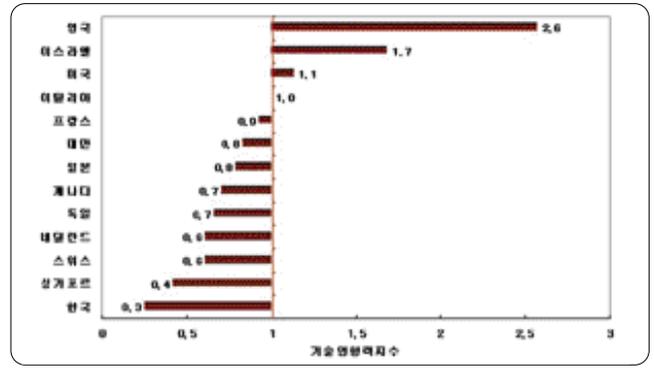
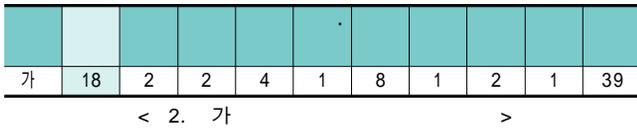


< 2. 가 >

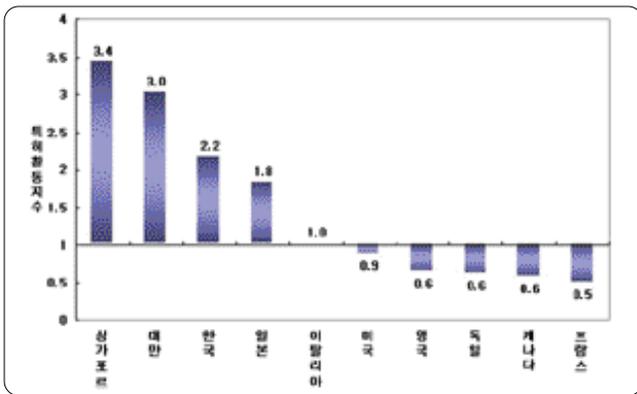
'91~2003 1

1) NT 2) NT 가8

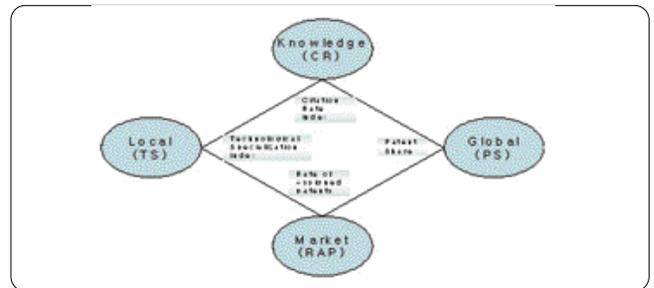
3) '91~2003 가 가 (1) 가 , 가 (39) (18) 46%



< 4. '91~2003 1 >



< 3. '91~2003 1 >



< 5. >

4) 가 , 가 (0.7%) (0.6)

TS(Technological Specialization), PS(Patent Share), CR(Citation Rate), RAP(Rate of Assigned Patents) 4 가 , 4 가

Cambridge Research & Instrumentation
Cambridge Display Technology

가 TS(Technological Specialization) 4) 가 (3.42) 가

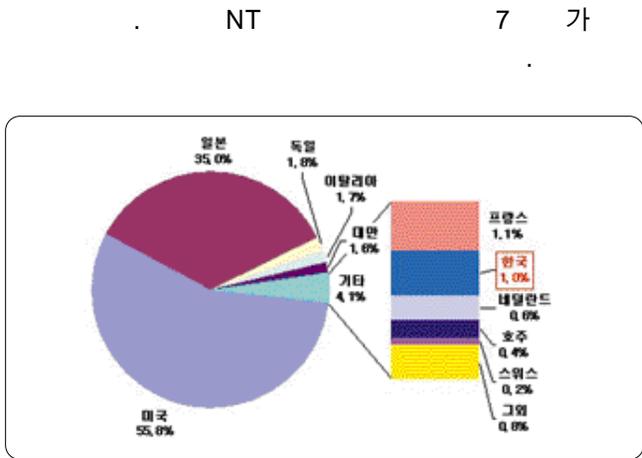
5) 가 10 가
Nanotechnology Strength Indicator: International Rankings Based on US Patents(Dora Marinova²⁾ Michael McAlee³ 가)

CR(Citation Rate) (16.85) 가
, (1.65) 가
RAP(Rate Of Assigned Patent) (1.18) 가)

2) Murdoch ISTP(Institute for Sustainability and Technology Policy; 1988) , <http://www.wistp.murdoch.edu.au/>
3) Western , <http://www.econs.ecel.uwa.edu.au/economics/Default.htm>
4) 가
5) () 가
「Firestone 1971」

가	(rank)	TS (rank)	PS (rank)	CR (rank)	RAP (rank)
	1,788 (1)	0.87 (8)	60.1% (1)	7.45 (4)	1.01 (7)
	774 (2)	1.83 (5)	26.0% (2)	5.20 (8)	1.02 (6)
	83 (3)	3.02 (2)	2.8% (3)	5.46 (7)	1.02 (5)
	63 (4)	2.15 (4)	2.1% (4)	1.65 (13)	1.03 (4)
	59 (5)	0.60 (10)	2.0% (5)	4.37 (10)	1.11 (2)
	54 (6)	0.48 (13)	1.8% (6)	6.11 (6)	0.89 (9)
	26 (7)	0.56 (12)	0.9% (7)	4.62 (9)	0.96 (8)
	20 (8)	0.63 (9)	0.7% (8)	16.85 (1)	0.50 (13)
가	18 (9)	3.42 (1)	0.6% (9)	2.78 (12)	1.06 (3)
	16 (10)	1.00 (6)	0.5% (10)	6.56 (5)	0.80 (11)
	13 (11)	2.47 (3)	0.4% (11)	8.46 (3)	1.18 (1)
	13 (12)	0.92 (7)	0.4% (12)	11.08 (2)	0.87 (10)
	13 (13)	0.60 (11)	0.4% (13)	4.00 (11)	0.65 (12)

< 3. '91~2003 1 >

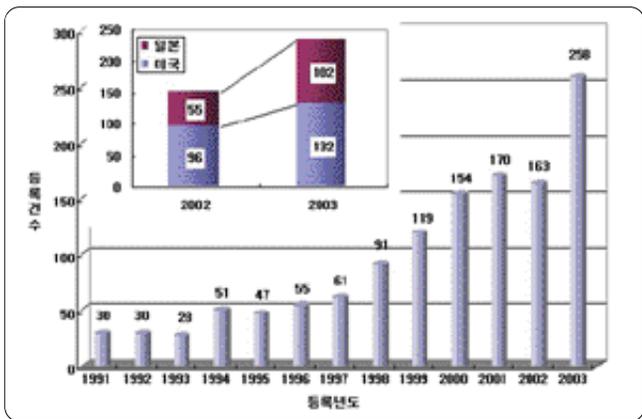


< 7. '91~2003 1 >

2.

1) 2003 가

2002 2 IBM, Micron Technology, Seagate Technology TDK

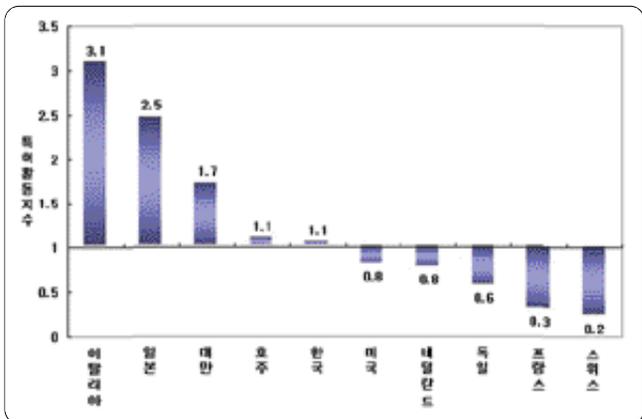


< 6. >

2) 가 (14) 35%(440) (23), 13 (21), 1% (20), 가

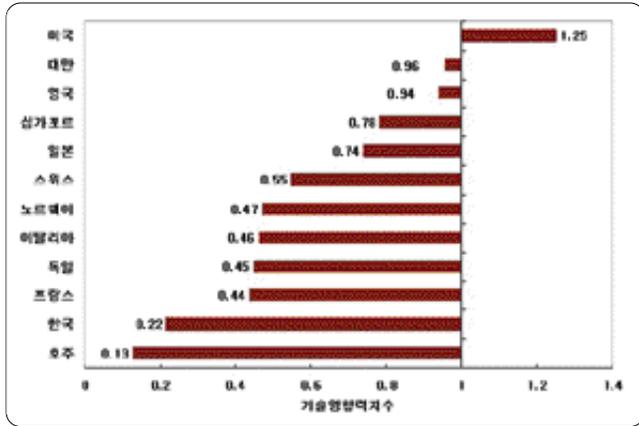
3) '91~2003

가 가 가 (1) SGS - Thomson Microelectronics STMicroelectronics

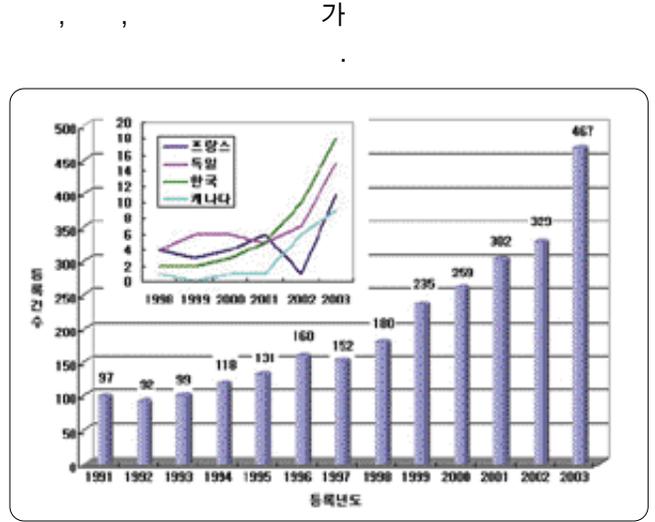


< 8. '91~2003 1 >

4) 가 1.25 Technology IBM, Micron 가



< 9. '91~2003 1 >



< 10. >

5) 가 10 가

TS(Technological specialization)
(3.1)가 가 가
CR(Citation Rate) (7.98)
가 , CR 가 1.38 가
(6.1)
가

Of Assigned Patent) (1.44) RAP(Rate 가

가	(rank)	TS (rank)	PS (rank)	CR (rank)	RAP (rank)
	702 (1)	0.81 (5)	55.8% (1)	7.98 (1)	1.02 (3)
	440 (2)	2.46 (2)	35.0% (2)	4.73 (3)	0.98 (6)
	23 (3)	0.56 (6)	1.8% (3)	2.87 (5)	1.44 (1)
	21 (4)	3.1 (1)	1.7% (4)	2.95 (4)	1.00 (4)
	20 (5)	1.72 (3)	1.6% (5)	6.10 (2)	1.05 (2)
	14 (6)	0.29 (7)	1.1% (6)	2.79 (6)	0.82 (7)
	13 (7)	1.05 (4)	1.0% (7)	1.38 (7)	1.00 (5)

< 4. '91~2003 1 >

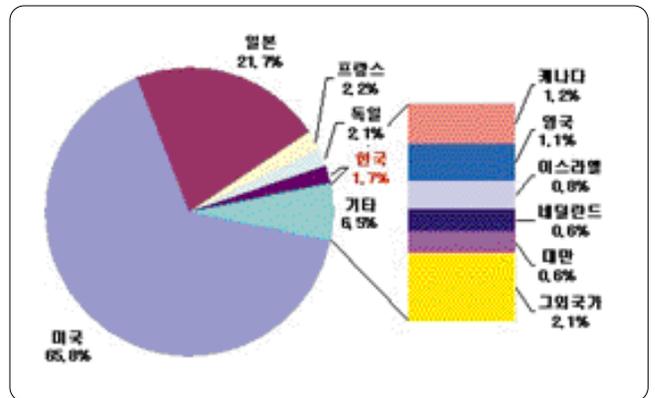
3.

1)

'91~2003 가
, 2003 ,

2)

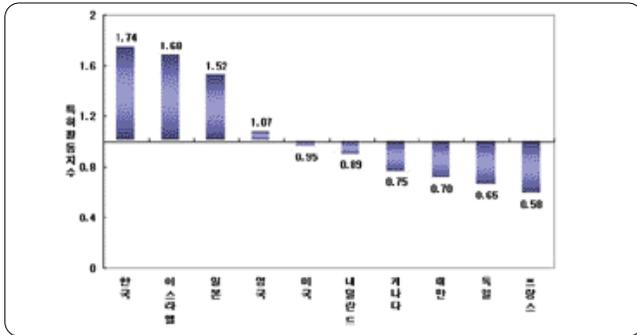
가 (1,724 , 65.8%)
21.7%(568) , 2.2%(58) , 2.1%(56)
NT 7 가
5



< 11. '91~2003 1 >

3)

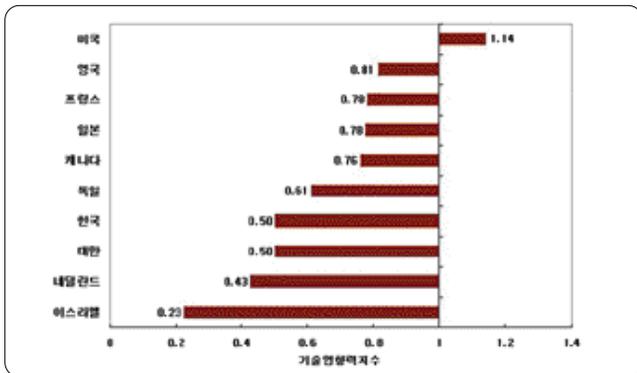
91~2003 가 (1) ,



< 12. '91~2003 가 1 >

4) 가1
가 가
Transitions Optical, 3M, Xerox

가 1



< 13. '91~2003 가 1 >

5) 가 10 가
가 가

TS(Technological specialization)
(1.74) 가
가
CR(Citation Rate) (7.36) 가
가 CR 가 3.24 가 9
가
RAP(Rate Of Assigned Patent)
(1.83)가 가

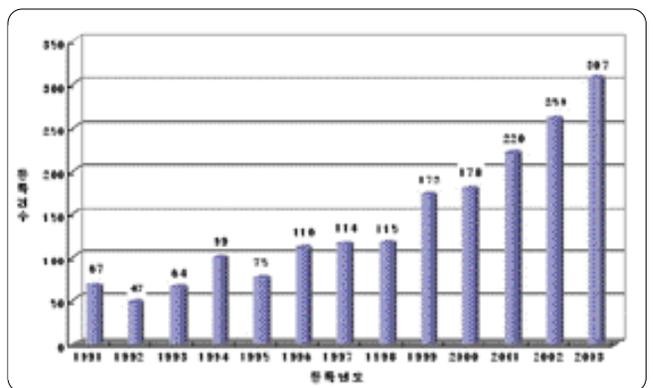
가	(rank)	TS (rank)	PS (rank)	CR (rank)	RAP (rank)
	1,724 (1)	0.95 (5)	65.8% (1)	7.36 (1)	1.04 (4)
	568 (2)	1.52 (3)	21.7% (2)	5.01 (5)	1.03 (5)
	58 (3)	0.51 (12)	2.2% (3)	5.05 (4)	0.94 (7)
	56 (4)	0.65 (11)	2.1% (4)	3.95 (8)	0.76 (9)
	45 (5)	1.74 (1)	1.7% (5)	3.24 (9)	1.05 (3)
	31 (6)	0.75 (9)	1.2% (6)	4.90 (6)	0.74 (11)
	30 (7)	1.07 (4)	1.1% (7)	5.23 (3)	0.45 (12)
	21 (8)	1.68 (2)	0.8% (8)	1.48 (12)	0.75 (10)
	17 (9)	0.89 (6)	0.6% (9)	2.76 (11)	1.06 (2)
	17 (10)	0.70 (10)	0.6% (10)	3.24 (10)	1.00 (6)
	16 (11)	0.87 (7)	0.6% (11)	4.75 (7)	0.76 (8)
	11 (12)	0.78 (8)	0.4% (12)	5.82 (2)	1.83 (1)

< 5. '91~2003 가 1 >

1.

1) 가
가 가 '96 18 '96 14
가 2003 33

가



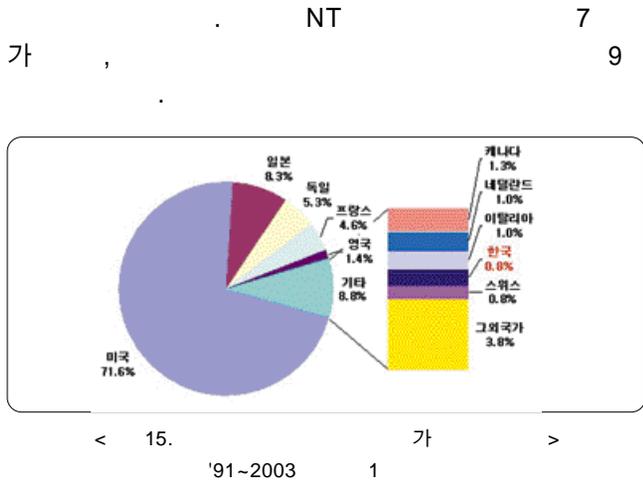
< 14. >

1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
54	41	49	79	54	89	80	88	122	126	145	174	1,309
3	1	6	3	4	6	8	10	19	9	25	25	32
1	2	2	3	2	7	7	5	10	13	9	16	20

< 6. 3 >

2)

71.6%(1,309) 가 , 5.3%(97) ,
4.6%(84) , 1.4%(26)
20%

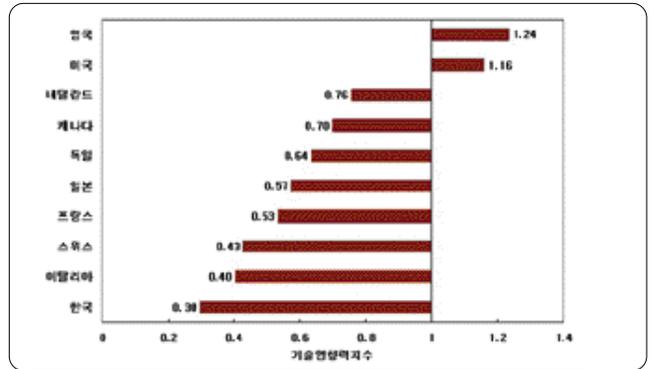


< 15. '91~2003 가 >

Industries

가 (1) 가
1.16

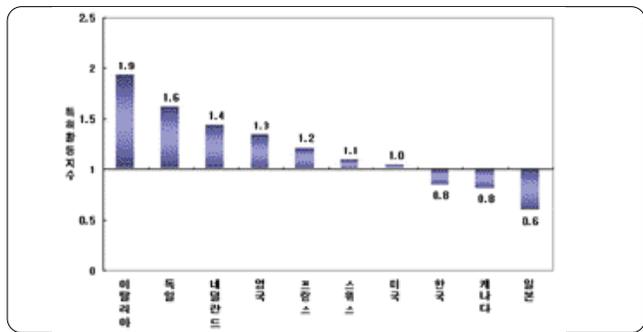
Rohm and Haas,
AMCOL International, Dow Chemical



< 17. '91~2003 1 >

3)

'91~2003 , 가
(1) 가



< 16. '91~2003 1 >

4)

(1.3) (1.24)

Cambridge Display Technology Imperial Chemical

5)

가 10 가
가

TS(Technological specialization)

(1.93)가 가

CR(Citation Rate)

(5.77) 가 , CR 가 1.20
가 8 가

RAP(Rate Of Assigned Patent)

(1.40)가

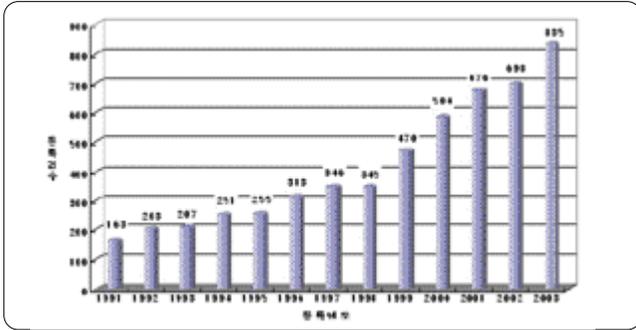
가

가	(rank)	TS (rank)	PS (rank)	CR (rank)	RAP (rank)
	1,309 (1)	1.04 (7)	71.6% (1)	5.42 (2)	1.03 (4)
	151 (2)	0.58 (11)	8.3% (2)	2.68 (6)	1.03 (5)
	97 (3)	1.61 (2)	5.3% (3)	2.97 (4)	0.90 (8)
	84 (4)	1.21 (5)	4.6% (4)	2.49 (7)	1.12 (2)
	26 (5)	1.34 (4)	1.4% (5)	5.77 (1)	1.08 (3)
	23 (6)	0.8 (9)	1.3% (6)	3.26 (3)	0.47 (11)
	19 (7)	1.43 (3)	1.0% (7)	2.79 (5)	0.79 (10)
	19 (8)	1.93 (1)	1.0% (8)	0.89 (10)	0.95 (6)
	15 (9)	0.83 (8)	0.8% (9)	1.20 (8)	0.88 (9)
	14 (10)	1.09 (6)	0.8% (10)	1.14 (9)	1.40 (1)
	13 (11)	0.77 (10)	0.7% (11)	0.54 (11)	0.93 (7)

< 7. '91~2003 1 >

2. 6)

1) '99 가 가
'99



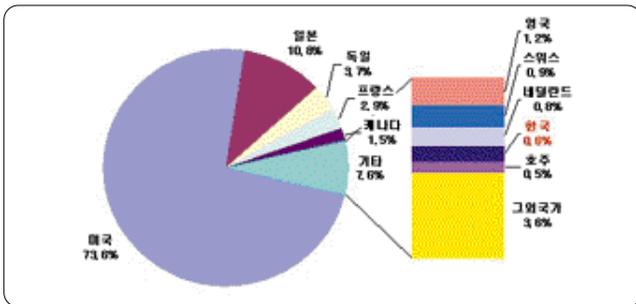
< 18. >

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
미국	10	21	17	19	25	32	40	38	46	74	72	90	91
일본	9	4	2	4	8	11	5	12	11	28	24	40	41
독일	7	5	7	6	9	9	6	9	12	14	28	22	19
영국	-	2	2	2	2	9	8	5	5	11	11	11	11
프랑스	5	6	2	2	2	-	4	5	4	7	6	9	12
스웨덴	3	3	2	1	3	4	1	3	6	7	4	5	5
기타	1	3	-	2	2	2	-	1	3	4	2	8	13

< 8. 가 >

2) 가 가 73.6%(3,936)

0.6%(34) (1.8%, 121)

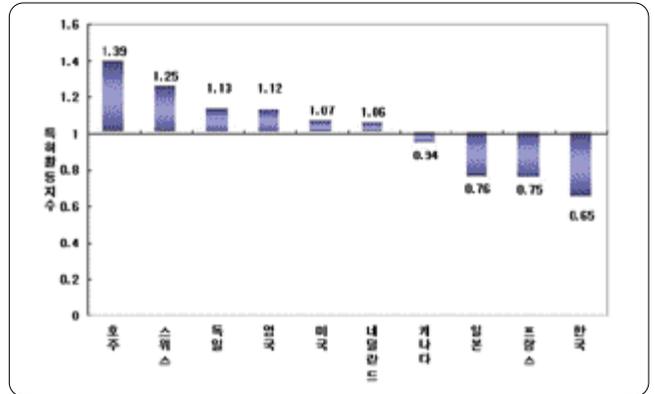


< 19. 가 >

'91~2003 1

3) '91~2003 가 (1)

가 , , , , Silverbrook Research

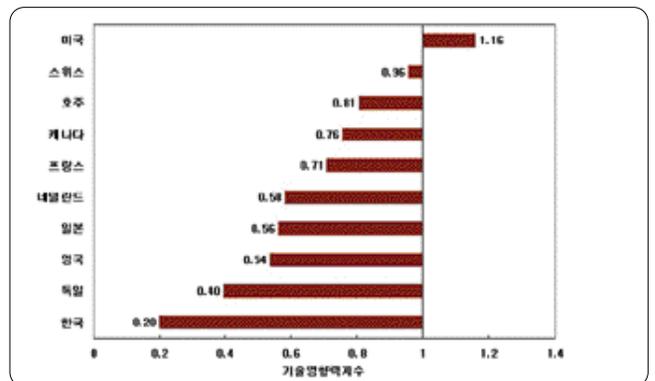


< 20. >

'91~2003 1

4) 가 1.16 가

(1) 가 가 Xerox, 3M, Dow Chemical, Eastman Kodak

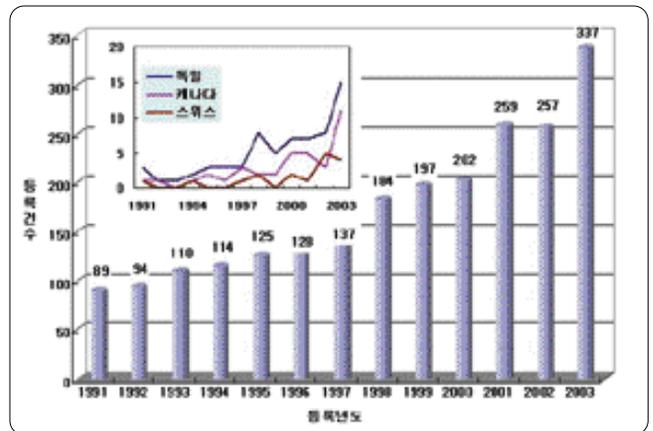


< 21. >

'91~2003 1

6)) 2004

5) 가 10 가
 가 . 가
 TS(Technological specialization)
 (1.48)가 가 . 가
 CR(Citation Rate) (6.64)
 가 , CR 가 1.15
 가 16 . 가
 RAP(Rate
 Of Assigned Patent) (1.57)가 가

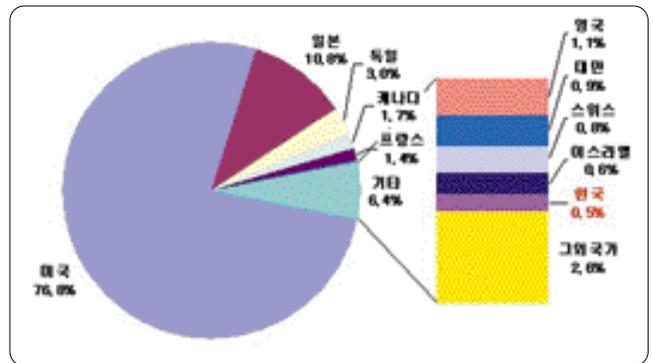


< 22. . >

가	(rank)	TS (rank)	PS (rank)	CR (rank)	RAP (rank)
	3,936 (1)	1.07 (8)	73.6% (1)	6.64 (1)	1.09 (4)
	575 (2)	0.76 (13)	10.8% (2)	3.21 (10)	0.99 (9)
	199 (3)	1.13 (6)	3.7% (3)	2.27 (14)	0.95 (10)
	153 (4)	0.75 (14)	2.9% (4)	4.06 (6)	0.87 (11)
	79 (5)	0.94 (11)	1.5% (5)	4.33 (4)	0.24 (17)
	64 (6)	1.12 (7)	1.2% (6)	3.08 (12)	0.74 (14)
	47 (7)	1.25 (5)	0.9% (7)	5.49 (2)	1.02 (6)
	41 (8)	1.06 (9)	0.8% (8)	3.34 (8)	1.14 (2)
	34 (9)	0.65 (15)	0.6% (9)	1.15 (16)	1.10 (3)
	27 (10)	1.39 (2)	0.5% (10)	4.63 (3)	0.84 (13)
	26 (11)	1.32 (3)	0.5% (11)	3.23 (9)	1.08 (5)
	23 (12)	0.90 (12)	0.4% (12)	2.30 (13)	1.00 (7)
	17 (13)	0.34 (17)	0.3% (13)	3.76 (7)	0.85 (12)
	17 (14)	0.59 (16)	0.3% (14)	0.88 (17)	0.74 (15)
	14 (15)	1.48 (1)	0.3% (15)	3.14 (11)	1.00 (8)
	12 (16)	0.97 (10)	0.2% (16)	1.50 (15)	0.48 (16)
	11 (17)	1.26 (4)	0.2% (17)	4.09 (5)	1.57 (1)

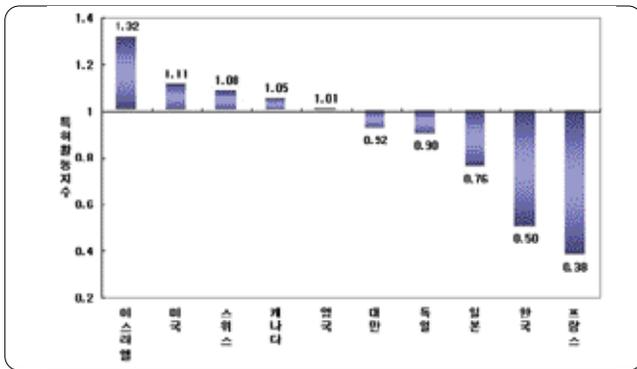
< 9. '91~2003 1 >

2) 76.3%(1,714) 가
 , NT 0.5%(11)
 7 가
 10 가



< 23. '91~2003 1 >

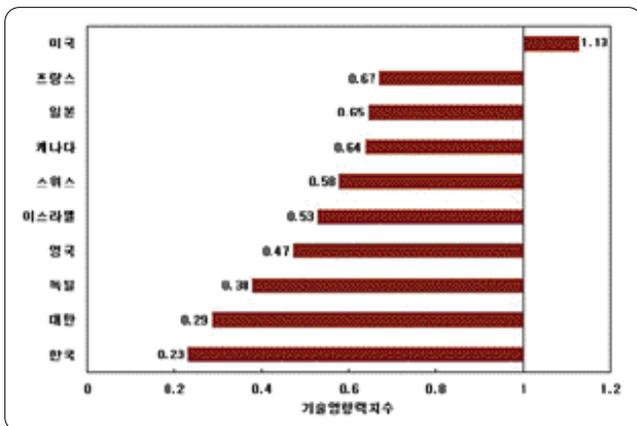
1) 가 (1)
 가 (0.38) 가 (1) 가 (0.5)
 가



< 24. 가 >
'91~2003 1

4) 가
(1) 가 가
< 29>

Societe de Production et de Recherches Appliquees
Commissariat a l'Energie Atomique



< 25. 가 >
'91~2003 1

5) 가 10 가
가
TS(Technological specialization)
(1.32) 가 , 가
CR(Citation Rate)
(7.47) 가 CR 가 1.55

가 . 가

RAP(Rate Of Assigned Patent) (1.10)

가

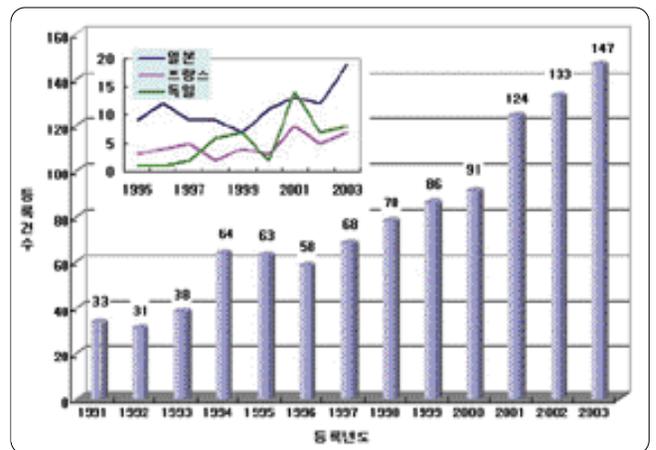
가	(rank)	TS (rank)	PS (rank)	CR (rank)	RAP (rank)
	1,714 (1)	1.11 (2)	76.8% (1)	7.47 (1)	1.02 (4)
	241 (2)	0.76 (8)	10.8% (2)	4.27 (3)	1.03 (3)
	66 (3)	0.9 (7)	3.0% (3)	2.53 (8)	0.88 (8)
	37 (4)	1.05 (4)	1.7% (4)	4.22 (4)	0.88 (7)
	32 (5)	0.38 (10)	1.4% (5)	4.44 (2)	0.89 (6)
	24 (6)	1.01 (5)	1.1% (6)	3.13 (7)	0.73 (10)
	19 (7)	0.92 (6)	0.9% (7)	1.89 (9)	1.06 (2)
	17 (8)	1.08 (3)	0.8% (8)	3.82 (5)	0.89 (5)
	14 (9)	1.32 (1)	0.6% (9)	3.50 (6)	0.74 (9)
	11 (10)	0.50 (9)	0.5% (10)	1.55 (10)	1.10 (1)

< 10. 가 >
'91~2003 1

2.

1)

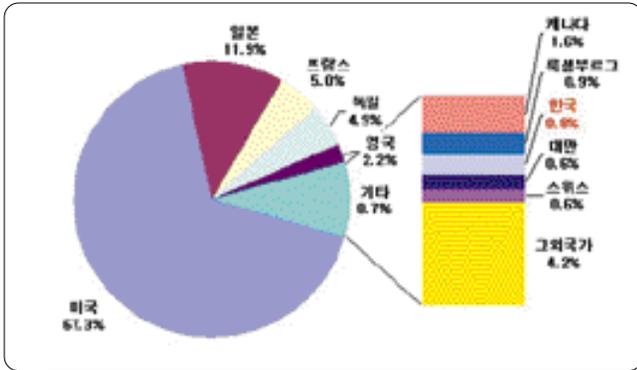
가 '94
, '94
가



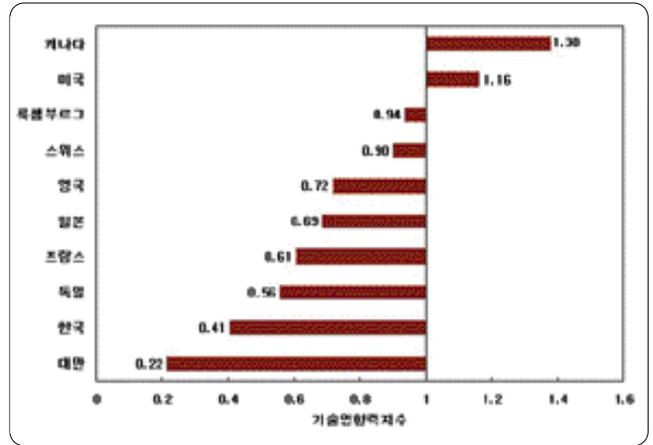
< 26. 가 >

2)

가 67.3%
(682), 11.9%(121), 5%(51), 4.9%(50
) , 8
0.8%



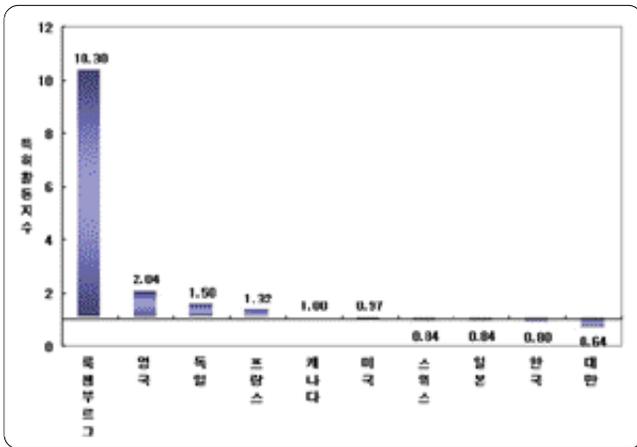
< 27. '91~2003 가 >



< 29. '91~2003 가 >

3) '91~2003 가 (1) 19 가 9 가 10.3 가

5) 가 10 가 8 가



< 28. '91~2003 가 >

TS(Technological specialization) (2.04) 가 가
 CR(Citation Rate) (6.38)가 가 (1.88) 가
 RAP(Rate Of Assigned Patent) (1.04) 가

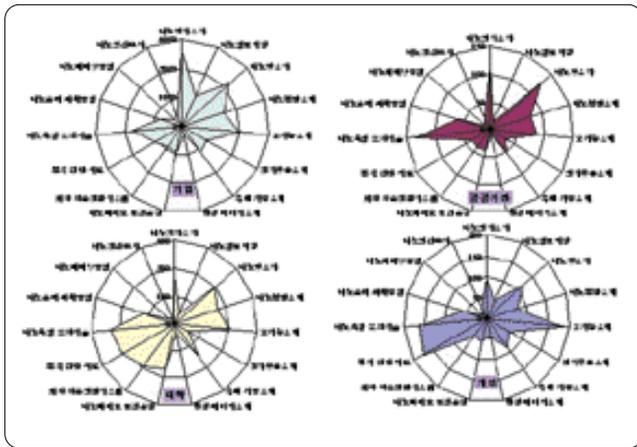
가	TS (rank)	PS (rank)	CR (rank)	RAP (rank)	
	682 (1)	0.97 (5)	67.3% (1)	5.36 (2)	1.04 (1)
	121 (2)	0.84 (6)	11.9% (2)	3.17 (4)	0.98 (3)
	51 (3)	1.32 (3)	5.0% (3)	2.80 (5)	0.96 (4)
	50 (4)	1.5 (2)	4.9% (4)	2.58 (6)	0.93 (5)
	22 (5)	2.04 (1)	2.2% (5)	3.32 (3)	0.79 (6)
	16 (6)	1 (4)	1.6% (6)	6.38 (1)	0.67 (7)
	8 (7)	0.80 (7)	0.8% (7)	1.88 (7)	1.00 (2)

< 11. '91~2003 가 >

4) 가 (1) 가 Ellul; Joseph P. Westaim Technologies 가

10.3

1.



< 30. 가 '91~2003 1 >

	IBM	NEC	L'Oreal	Bayer	Hyal Pharmaceutical	British Technology Group	Taiwan Semiconductor Manufacturing	Philips Electronics	SGS-Thomson Microelectronics
	174	215	-	-	-	-	25	33	8
	155	64	-	-	-	-	7	1	14
	56	71	-	4	-	2	14	-	3
	20	8	11	17	-	-	-	-	-
	48	13	8	8	-	2	1	1	3
	30	16	-	3	-	-	1	-	2
	10	7	1	12	-	-	-	-	-
	1	-	-	-	-	-	-	-	-
	1	-	190	-	-	1	-	-	-
	-	-	21	1	29	1	-	-	-
	6	-	1	-	-	-	-	-	1
	71	13	-	-	-	1	2	4	-
	13	5	5	1	-	1	1	-	1
	28	6	-	-	-	-	1	16	-
	29	15	-	-	-	-	3	2	-
	642	433	237	46	29	8	55	57	17

< 12. 가 '91~2003 1 >

2)

가

2. 가

1) IBM, NEC, , Taiwan Semiconductor Manufacturing
Philip 가 IT IT

Semiconductor Manufacturing Taiwan
Taiwan Semiconductor Manufacturing

L'Oreal
Hyal Pharmaceutical 가

	Navy	Agency of Industrial Science and Technology	Commissariat a l'Energie Atomique	National Research Council of Canada	The Secretary of State for Defence in Her Britann	ETRI	National Science Council	Nederlandse Organisatie voor Toegepast Natuurwet
	18	4	14	2	2	13	-	-
	2	1	3	-	-	2	-	-
	34	4	10	2	4	6	1	-
	13	10	2	2	-	1	2	4
	14	5	4	2	1	2	2	2
	7	4	3	-	-	7	1	-
	3	3	3	1	-	1	1	1
	1	-	-	-	-	1	-	-
	4	2	1	2	-	-	1	-
	2	-	-	-	-	-	1	-
	7	-	1	-	-	-	-	-
	24	9	9	1	2	1	3	-
	15	5	1	1	1	-	2	-
	4	1	-	-	-	1	-	-
	3	1	-	-	1	5	1	-
	151	49	51	13	11	40	15	7

< 13. 가 '91~2003 1 >

3) Top10

3M 9.4 , Motorola
9.2 1 IBM (7.5)

Motorola 3M 가 NT IT
IBM 2 가
Xerox 가
13.5 3M (11.4)
Kodak 가
15 가

US5078994(: Microgel drug delivery system),
US5399363(: Surface modified anticancer
nanoparticles)

Advanced Micro Devices . Motorola
가 IT

	IBM	Xerox	3M	NEC	Motorola	Micron Technology	Toshiba	Advanced Micro Devices	Eastman Kodak	L'Oreal
	7.7	10.8	20.0	5.4	11.8	5.3	6.6	3.7	3.0	-
	9.2	13.5	11.4	4.8	6.6	10.1	7.3	0.0	3.4	-
	7.6	6.9	11.3	3.2	4.2	3.1	4.9	1.2	5.8	-
	5.6	5.2	4.7	6.5	3.0	6.7	1.0	-	3.5	1.2
	6.6	9.2	11.7	3.6	10.0	5.9	3.3	0.8	2.3	0.5
	5.8	9.6	8.6	3.1	3.1	2.5	5.0	2.0	4.6	-
	3.3	10.4	8.4	4.9	10.0	0.0	-	-	3.0	3.0
	7.0	-	6.3	-	4.0	18.0	6.3	-	-	-
	1.0	-	0.7	-	-	-	-	-	-	2.6
	-	-	0.0	-	-	-	-	-	15.0	2.5
	2.5	0.0	7.5	-	1.0	-	0.0	-	6.5	0.0
	9.8	9.4	8.0	2.2	8.0	5.5	4.3	1.7	1.0	-
	4.5	2.6	7.1	2.4	15.8	0.0	4.0	5.0	1.8	1.0
	4.8	3.8	7.3	3.5	11.2	1.8	3.8	0.5	-	-
	3.6	1.6	2.3	5.3	8.9	2.8	18.2	2.5	-	-
	7.5	8.5	9.4	4.7	9.2	5.5	6.8	3.0	4.5	2.4

< 14. Top10 >

'91~2003 1

< >
- NT (,)
- ()
- 가 ()
- www.nano.go

가 가
CNN,
MSNBC
2001
“

OECD 1963 Frascati Manual

가.

가

1) Frascati Manual

가 (1)
가

가 2) 가

< 1 >

(level), (sector),
가

가 ,가 2

가
가

가

< 1. >

Micro

가

2
(productivity)

. Meso Macro 가 가

(global), 가, (道) (州)

(2)

(utility)

(Bibliometric indicators)

가

가

(activity indicator),

(relational indicator)

가 (evaluative indicator) 가

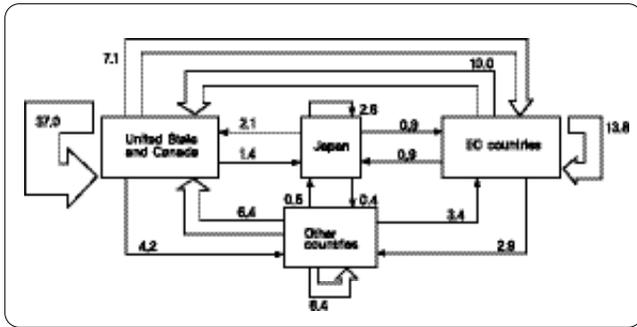
1) Sample method for survey of experimental research and development.

2)

8) 가가

가

9)



< 1. 1984 - 1988 (: %)>

(5) (Co-word analysis)

(co - word)가

(keyword)

가

가

가

(4) (Co-citation analysis)

3

가 . [2]

A B가 가 3

C가 A B A B

(linked, connected coupled)

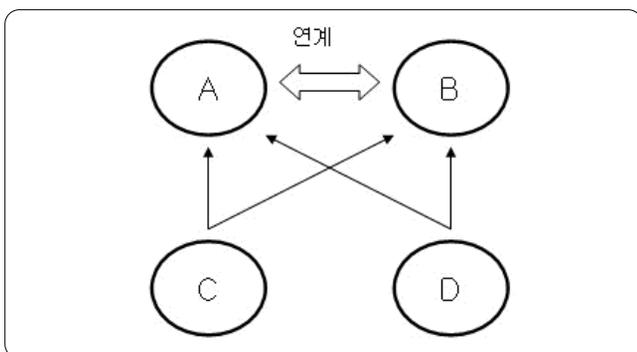
A B 가 (linkage connectivity) 가

가 . 2

10)

가

가



< 2. >

가

가가

가 2

가

가

(macro, meso, micro)

가

가

가

8) Science and Technology Agency (Japan) 1991, p.17.

9) Thomson - ISI SCI SCIE 가

10) (BA203): 2 , , 2005.



- 가

-

,

가

가

1

150~200

가

2

28

3

가가

가

가

가

가

(who, when,

what)가

가

2

가

가

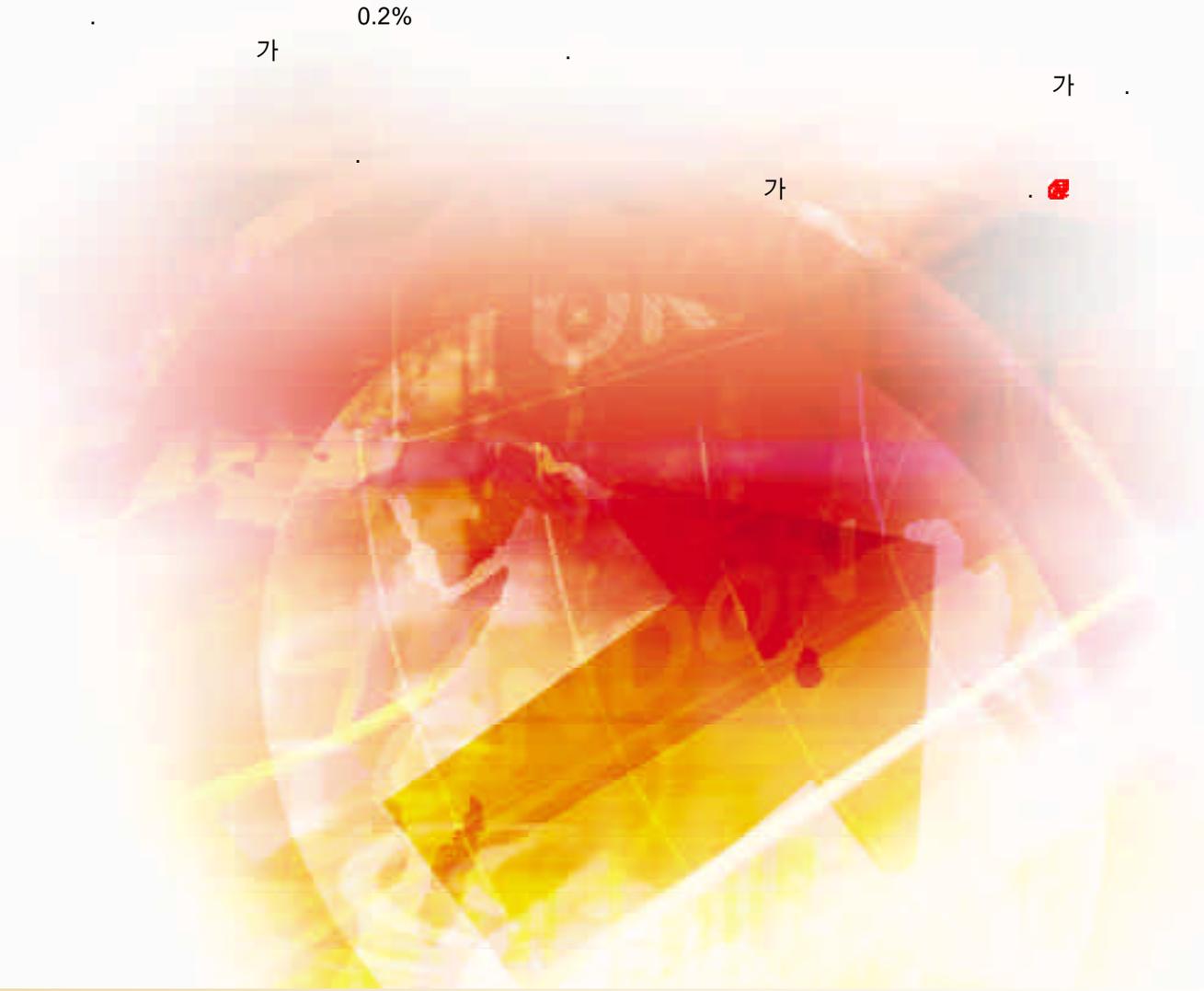
가

가

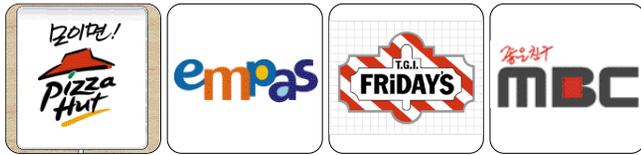
5

2002 EC 100
 가 가 ,6%가 57%가 ,7%
 가 30%
 가
 1500 가 가 EC 2002 106,136 , 331580 ,
 3 가 가 421,044 가
 가 가 가 가 가
 R&D 4~5% 가 가
 가 0.2% 가

가 . 



(Service Mark)



[: , 'CIP , 1986, p. 104.]

(Brand) (識別標識)	(Brand Name)	
	(Brand Mark)	
	(Trade Name)	가 (商號) (商號商標)
	(Trade Mark)	가
(Service Mark)		

< 1. (Brand) >

(Service Mark) ?

" 가

" (4 18)

1.

(轉轉流通)

가 가 (Trade Name)
(House Mark) (營業標)

가

1)

- 1) (slogan) "I'm lovin' it" ("Just do it"), "Always Coca Cola" (catch - phrase) ("I'll be back", "D'oh!", "Show me the money!")

가 (19 1).

가 2)

(2 1 6). , 가

(2 2).

가 (48 2).

가

가 (7 1 7 8

가 7

1 11 (

48 5).

가 가)

가 (

가 (

가 48 3).

[: , ' 2002, p. 56.]

NICE			NICE		
3504	1205		0506	1004	
3506	1211		-	-	
			-	-	
3605	1211		-	-	
3701	0401		7	38	
3702	0501		-	-	
3801	0601		0932	39	
4001	1101	가	-	-	가
4103	1201	.	1625	5201	.
4109	1210	.	-	-	.
4201					
3502	1203		0933	3909	
4502	1214		25	45	

< 3. >

2.

(化體)

1)

(2 3).

3.

(10 1)

가

5) , op. cit., p. 12 ~ 13.

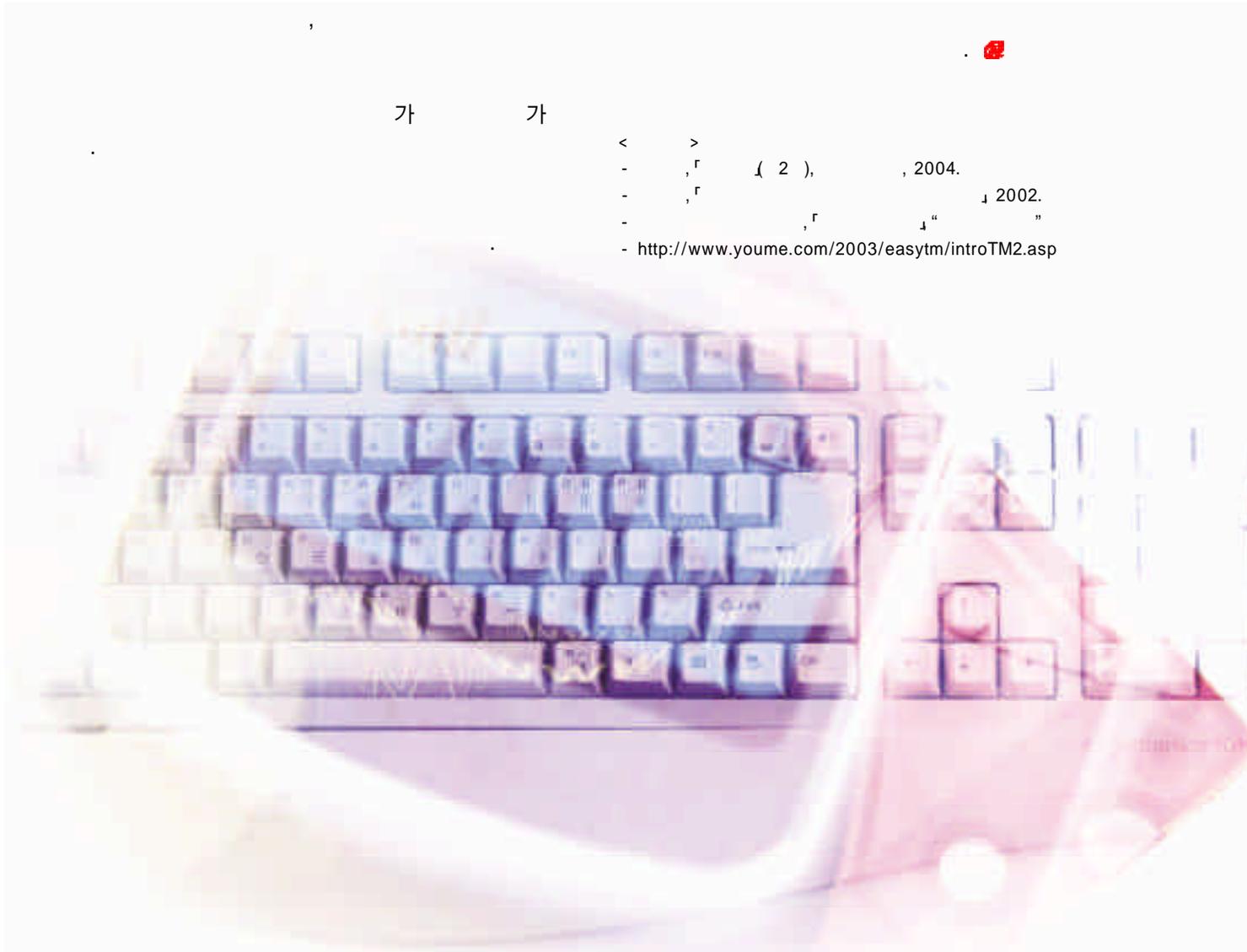
6) , op. cit. p. 150.

가

가

가 가

- < >
- , 「 (2) , , 2004.
- , 「 , 2002.
- , 「 “ ”
- <http://www.youme.com/2003/easytm/introTM2.asp>



KIPRIS 검색가능 최종 데이터 현황

[2005. 2. 28현재]

구분	종류	기준일	정보제공범위	구분	종류	기준일	정보제공범위
특허 / 실용	공개서지	공개일	2005. 2. 28	의장 심판	등록	공고일	2005. 2. 28
	공고서지	공고일	2005. 2. 28		공개(조기)	공개일	2005. 2. 28
	초특	공보일	2005. 2. 28		1심 ~ 3심	청구일	2005. 2. 28
상표	서지/이미지	방식심사일	2005. 2. 28	4권리	등록	등록일	2005. 2. 28
				4권리	중간처리	서류접수일	2005. 2. 28
특허	생명공학	출원일	1980 ~ 2002	특허	KPA	등록·공고	1979.1 ~ 2004.6
						특허공개	2000.1 ~ 2004.9

(KIPI),

080 - 012 - 7700

-

-

(080)

(俞永基: www.kipi.or.kr)
3 2

가

(080 - 012 - 7700)

(KIPI, KIPRIS, FORX)

(Happy Call)

가

가

가

(KIPI),

가 (ITEP)

가

가

2 22

가

가

가

가

(KIPI)



가 (ITEP)
가

DB

가Pool

R&D

가

가 가

가Pool

가



, 400
2

가
「 가
R&D 가
2 1 KAIST
() 가 , () , ()
25

PC



2 22
() PC
, () 45 PC

13



- 12 ()
2 22 13
2004 (), 2005 가 ()
() 가
, 12 (李潤
雨) 1946
, 68

20 「 (NT) 가 1
300 가 2
「 NT 가
NT / 가
가
NT
, (www.kipo.go.kr)



(www.kipi.or.kr / www.forx.org)

Patent 21 2005 3~4

(60)

: 02901
:
:
: 647 - 9
:
:
: (02 - 3452 - 8144)
: IDO (02 - 3445 - 9849)
:

: www.kipris.or.kr

: www.forx.org



: (02)3452-8144 FAX : (02)3453-5951
: 080-012-7700



<http://www.kipi.or.kr>