REISSUE PATENTS

JANUARY 1977 -- DECEMBER 2003



March 2004 U.S. PATENT AND TRADEMARK OFFICE OFFICE OF ELECTRONIC INFORMATION PRODUCTS/PTMD PK3 - SUITE 441, WASHINGTON, DC 20231 TEL (703) 306-2600/ FAX (703) 306-2737

A PATENT TECHNOLOGY MONITORING DIVISION REPORT

Reissue Patents Report 1/1977 - 12/2003 Explanation of Data

This Patent Technology Monitoring Division (PTMD) Program Report profiles patent activity for U.S. reissue patents (hereafter referred to as patents) granted between **1977 and December 2003**. The source of the data used for this report is the PTMD database maintained by the Information Products Division.

Data Distribution By Date of Grant and By Date of Application

Parts A1 and A2

Part A1 distributes patent GRANT data by year of patent grant ("Patents Granted By Date of Patent Grant"). Part A2 distributes grant data by the year in which the patented application was filed ("Patents Granted By Date of Patent Application"). Parts A1 and A2 each provide patent counts (pages A1-1 and A2-1) and percent distributions (pages A1-2 and A2-2).

Patent data in the "Pre 1990" column corresponds to the period **January 1, 1977** through **December 31, 1989**.

Part B

Part B of this report distributes patent GRANT data for organizations that have received U.S. patents since 1977. Data are presented by the year in which the patent was granted ("Patents By Year of Grant") and the year the patented application was filed ("Patents by Year of Application").

DATA FOR THOSE APPLICATIONS WHICH WERE FILED BUT NEVER ISSUED (ROUGHLY 25% OF TOTAL FILINGS) ARE NOT INCLUDED IN THIS REPORT.

Since the average time period between filing for a patent and the issuing of the patent (i.e., a patent's "pendency") is now about 24 months, the patented application data for the most recent years are incomplete.* This is because a significant number of the applications filed in the most recent years, which will ultimately become patents, were still pending in **December 2003.** Since they had not yet become patents at the time this report was prepared, they were not included in this report.

Patented application data are of significant value since the date an application was filed more accurately reflects when the technology was developed. Additionally, fluctuations in data based on application date are much more likely to reflect changes in technological activity, since such fluctuations would for the most part be immune from changes in PTO processing such as occurred in years such as 1986 when the PTO issued fewer patents than would normally have been expected due to a lack of funds to print patents. Note that a patent's "pendency" can be quite variable from one patent to another thereby affecting the date of patent grant. Such variation in pendency is

determined by many factors, including PTO workload (which varies between technologies), budget and manpower levels, patent printing schedules, etc.

Parts of the Report

Parts A1 and A2 present tables which show, by number and percent, the patent activity. Part A1 presents data by year of patent grant ("Patents Granted by Date of Patent Grant"). Part A2 redistributes grant data by year of patent application ("Patents Granted by Date of Patent Application"). The location of patent origin is determined by the residence of the first-named inventor at the time of grant.

Information on **patent ownership** reflects ownership at the time of patent grant and does not include subsequent changes in ownership. If more than one assignee was declared at the time of grant, the patent is attributed to the first-named assignee. The U.S. and Foreign Corporations ownership categories count predominantly corporate patents; however, patents assigned to other organizations such as small businesses, nonprofit organizations, universities, etc. are also included in this category. While U.S. Government patent ownership includes only patents granted to the Federal Government, no such distinction is made for Foreign Government patents.

Part B is a ranked listing of national and international organizations (i.e., corporations, universities, government agencies) which have received 5 or more U.S. reissue patents since 1977. Data line 1 for each listed organization distributes counts of patent grants by year of grant. Data line 2 for each organization redistributes those same patent grants by year in which the patented application was filed. Information on patent ownership reflects ownership at the time of patent grant. Although a substantial effort has been made to combine name variations into a single organizational name, many organizations continue to have patents listed under more than one organizational name.

^{*} As of **December 31, 2003**, UTILITY patent application data (most issued patent documents are utility patents) were approximately 92% complete for patent applications filed in 1999 and 76% complete for applications filed in 2000 and 50% complete for 2001 filings. They are essentially complete for applications filed prior to 1999. Currently, completion percentages restricted to reissue patents are not available.

Part A1

Patent Grants As Distributed By Year of Patent Grant

---- Patents Granted By Date Of Patent Grant (Granted: Jan 01, 1977 - Dec 31, 2003) ----

	-							NU	MBER OF	PATENTS								
	P	re 1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total	
Т	otal	4008	370	263	360	332	317	316	279	277	298	448	524	480	461	421	9154	
	U.S. Origin	2871	241	171	231	207	194	208	175	173	195	274	331	266	263	222	6022	
	Foreign Origin	1137	129	92	129	125	123	108	104	104	103	174	193	214	198	199	3132	
	JAPAN	367	58	53	66	61	59	61	49	51	48	86	112	98	87	98	1354	
	GERMANY	220	15	8	19	13	18	9	9	10	15	20	13	23	23	21	436	
	UNITED KINGDOM	160	12	4	10	16	11	6	11	8	8	8	13	11	18	8	304	
	FRANCE	72	9	5	4	9	7	3	9	5	7	14	7	15	10	18	194	
	CANADA	57	9	6	5	6	9	5	5	4	7	8	10	11	11	16	169	
	ITALY	29	3	3	1	1	2	4	4	13	4	14	4	15		6	108	
	NETHERLANDS	46	2	5	- 6	- 3	-	-	-	2	1	4	- 1	4	3	4	88	
	SWEDEN	43	3	2	3	3	1	1	1	3	2	4	-	- - -	7	2	81	
			6					3	5	3			4			2		
	SWITZERLAND	41 18	-	3	4	2	2	-			1	1	4	4	2		78	
	AUSTRALIA	18	1	T	3	1	4	1	1	_	2	1		4	3	2	43	
	SOUTH KOREA					1		1	2	1		6	7	6	11	2	37	
	DENMARK	14	2		1	1	2			1	2	4	2	2		2	33	
	ISRAEL	9	3			1		1	2		4	1	4	2	4	2	33	
	TAIWAN	2			2	1	2	1		1			4	5	5	8	31	
	AUSTRIA	7	1		2	2	1	1			2	1	2	2	2	4	27	
	BELGIUM	12	2		1								2		3	3	23	
	NORWAY	13				1						1		1			16	
	FINLAND	4	1		1	1		2		1		1	1		1	2	15	
	NEW ZEALAND	5	2						1				1	3			12	
	SPAIN	1					2	1		1			1				6	
	SOUTH AFRICA	3				1							1		1		6	
	CHINA, HONG KONG S.A.R	1				1							1	1		1	5	
	INDONESIA	1						2	1								4	
	BRAZIL	2						-	-	1							3	
	LUXEMBOURG	1		1						-					1		3	
	RUSSIAN FEDERATION	1		1				1	1				1		1		3	
	HUNGARY	2						-	1				-				2	
		2																
	CZECHOSLOVAKIA																2	
	MEXICO	1		-						1							2	
	IRELAND			1						1							2	
	ARGENTINA	_					2										2	
	LIECHTENSTEIN	1						1									2	
	THAILAND				1												1	
	GREECE	1															1	
	CHILE	1															1	
	PERU						1										1	
	Others (4)	1											1	1	1		4	
O	wnership:																	
	U.S. Corporations	2391	185	133	188	156	152	164	134	146	163	214	265	234	212	198	4935	
	U.S. Government	10		1	2	3	1	1		1		1	5	3			28	
	U.S. Individuals	554	61	44	47	52	45	49	46	33	39	66	64	43	58	32	1233	
	Foreign Corporations	896	107	78	112	105	110	96	91	92	93	158	180	180	179	179	2656	
	Foreign Government	11	3		2	3	1		1		1			1	1	1	25	
	Foreign Individuals	146	14	7	- 9	13	- 8	6	- 7	5	2	9	10	19	11	11	277	
	orgin individualp	110	11	,	2	15	U	Ū	,	5	2	2	10	17			211	

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---- Patents Granted By Date Of Patent Grant (Granted: Jan 01, 1977 - Dec 31, 2003) ----

							PE	RCENT OF	PATENTS								
	Pre 1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total	
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
U.S. Origin	72	65	65	64	62	61	66	63	62	65	61	63	55	57	53	66	
Foreign Origin	28	35	35	36	38	39	34	37	38	35	39	37	45	43	47	34	
JAPAN	9	16	20	18	18	19	19	18	18	16	19	21	20	19	23	15	
GERMANY	5	4	3	5	4	6	3	3	4	5	4	2	5	5	5	5	
UNITED KINGDOM	4	3	2	3	5	3	2	4	3	3	2	2	2	4	2	3	
FRANCE	2	2	2	1	3	2	1	3	2	2	3	1	3	2	4	2	
CANADA	1	2	2	1	2	3	2	2	1	2	2	2	2	2	4	2	
ITALY	1	1	1			1	1	1	5	1	3	1	3	1	1	1	
NETHERLANDS	1	1	2	2	1		1	1	1		1		1	1	1	1	
SWEDEN	1	1	1	1	1				1	1	1		1	2		1	
SWITZERLAND	1	2	1	1	1	1	1	2				1	1			1	
AUSTRALIA				1		1				1			1	1		0	
SOUTH KOREA								1			1	1	1	2		0	
DENMARK		1				1				1	1					0	
ISRAEL		1						1		1		1		1		0	
TAIWAN				1		1						1	1	1	2	0	
AUSTRIA				1	1					1					1	0	
BELGIUM		1												1	1	0	
NORWAY																0	
FINLAND							1									0	
NEW ZEALAND		1					-						1			0	
SPAIN		-				1							-			0	
SOUTH AFRICA						-										0	
CHINA, HONG KONG S.A	P															0	
INDONESIA	•••						1									0	
BRAZIL							-									0	
LUXEMBOURG RUSSIAN FEDERATION																0	
HUNGARY																0	
CZECHOSLOVAKIA																0	
MEXICO																0	
IRELAND																0	
ARGENTINA						1										0	
LIECHTENSTEIN																0	
THAILAND																0	
GREECE																0	
CHILE																0	
PERU																0	
Others (4)																0	
Ownership:																	
U.S. Corporations	60	50	51	52	47	48	52	48	53	55	48	51	49	46	47	54	
U.S. Government				1	1							1	1			0	
U.S. Individuals	14	16	17	13	16	14	16	16	12	13	15	12	9	13	8	13	
Foreign Corporations	22	29	30	31	32	35	30	33	33	31	35	34	38	39	43	29	
Foreign Government		1		1	1											0	
Foreign Individuals	4	4	3	3	4	3	2	3	2	1	2	2	4	2	3	3	

Part A2

Patent Grants As Distributed By Year of Patent Application

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---- Patents Granted By Date Of Patent Application (Granted: Jan 01, 1977 - Dec 31, 2003) ----

						1	NUMBER (OF PATENT	ED APPLI	CATIONS						
	Pre 1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 Total	
Total	4748	345	357	354	343	411	420	444	390	404	388	343	162	45	9154	
U.S. Origin	3349	216	217	228	211	257	247	289	231	240	233	193	82	29	6022	
Foreign Origin	1399	129	140	126	132	154	173	155	159	164	155	150	80	16	3132	
JAPAN	505	68	65	64	61	74	85	82	81	81	81	67	31	9	1354	
GERMANY	247	18	17	12	16	18	19	18	18	11	15	13	13	1	436	
UNITED KINGDOM	184	8	9	13	13	11	12	11	9	12	10	9	3		304	
FRANCE	85	10	7	6	7	9	17	9	5	9	7	11	11	1	194	
CANADA	71	7	9	6	7	7	7	7	8	11	9	10	7	3	169	
ITALY	35	1	3	4	5	12	16	4	10	4	9	3	1	1	108	
NETHERLANDS	54	5	4	5	2	2	4	1	3	1	2	3	2		88	
SWEDEN	48	3	3	1	2	1	5	3	5	3	5	1	1		81	
SWITZERLAND	52	2	2	4	3	5	1	2	1	2	3	1			78	
AUSTRALIA	20	2	6	1	1	2	-	4	1	_	2	4			43	
SOUTH KOREA			1		3	2		4	6	9	4	- 7	1		37	
DENMARK	15	1	- 3		2	2	2	- 3	1	2	-	•	2		33	
ISRAEL	13	1	5	1	1	1	2	3	3	2	1	5	4		33	
TAIWAN	3	-	2	2	2	-	-	1	5	5	6	7	3		31	
AUSTRIA	8		2	3	1			3	1	2	1	4	1	1	27	
BELGIUM	13	2	2	3	1			5	2	2	1	- 2	2	1	23	
NORWAY	13	2		1			1		2	1		2	4		16	
		1	1		1	2	1			1		1	1			
FINLAND NEW ZEALAND	6 7	1	1	1 1	T	2 1			2	T		1	T		15 12	
			1	1	1	1	1					1				
SPAIN	1		1		1	T	1		1	-					6	
SOUTH AFRICA	3		1	-					1	1		-			6	
CHINA, HONG KONG S.A.R			_	1						2		1			5	
INDONESIA	1		1		1	1									4	
BRAZIL	2						1								3	
LUXEMBOURG	2				_	-							1		3	
RUSSIAN FEDERATION					1	1				1					3	
CZECHOSLOVAKIA	2														2	
HUNGARY	2														2	
LIECHTENSTEIN	1					1									2	
IRELAND	1				1										2	
ARGENTINA			1		1										2	
MEXICO	1					1									2	
CHILE	1														1	
THAILAND			1												1	
PERU			1												1	
PORTUGAL	1														1	
Others (4)	1								1	2					4	
Ownership:																
U.S. Corporations	2768	164	175	172	178	213	202	229	196	194	201	153	63	27	4935	
U.S. Government	11	4	1	1	3		2	3	1	1		1			28	
U.S. Individuals	668	53	50	57	40	55	50	64	39	49	42	44	20	2	1233	
Foreign Corporations	1116	110	119	115	113	132	157	139	146	150	133	137	74	15	2656	
Foreign Government	15	1	2	1	1		2	2					1		25	
Foreign Individuals	170	13	10	8	8	11	7	7	8	10	12	8	4	1	277	

---- Patents Granted By Date Of Patent Application (Granted: Jan 01, 1977 - Dec 31, 2003) ----

						P	ERCENT O	F PATENT	ED APPLI	CATIONS						
	Pre 1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 Total	
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
U.S. Origin	71	63	61	64	62	63	59	65	59	59	60	56	51	64	66	
Foreign Origin	29	37	39	36	38	37	41	35	41	41	40	44	49	36	34	
JAPAN	11	20	18	18	18	18	20	18	21	20	21	20	19	20	15	
GERMANY	5	5	5	3	5	4	5	4	5	3	4	4	8	2	5	
UNITED KINGDOM	4	2	3	4	4	3	3	2	2	3	3	3	2		3	
FRANCE	2	3	2	2	2	2	4	2	1	2	2	3	7	2	2	
CANADA	1	2	3	2	2	2	2	2	2	3	2	3	4	7	2	
ITALY	1		1	1	1	3	4	1	3	1	2	1	1	2	1	
NETHERLANDS	1	1	1	1	1		1		1		1	1	1		1	
SWEDEN	1	1	1		1		1	1	1	1	1		1		1	
SWITZERLAND	1	1	1	1	1	1					1				1	
AUSTRALIA	-	1	2	-	-	-		1			1	1			0	
SOUTH KOREA		-	-		1			1	2	2	1	2	1		0	
DENMARK			1		1			1	2	2	1	2	1		0	
ISRAEL			T		T			1	1			1	T		0	
			-	-	-			1	1		•		•			
			1	1	1					1	2	2	2		0	
AUSTRIA		_	1	1				1				1	1	2	0	
BELGIUM		1							1			1	1		0	
NORWAY															0	
FINLAND													1		0	
NEW ZEALAND									1						0	
SPAIN															0	
SOUTH AFRICA															0	
CHINA, HONG KONG S.A	.R														0	
INDONESIA															0	
BRAZIL															0	
LUXEMBOURG													1		0	
RUSSIAN FEDERATION															0	
CZECHOSLOVAKIA															0	
HUNGARY															0	
LIECHTENSTEIN															0	
IRELAND															0	
ARGENTINA															0	
MEXICO															0	
CHILE															0	
THAILAND															0	
PERU															0	
PORTUGAL															0	
Others (4)															0	
0011010 (1)															Ŭ	
Ownership:																
U.S. Corporations	58	48	49	49	52	52	48	52	50	48	52	45	39	60	54	
U.S. Government	50	1			1	52	10	1	50	10	52		55	00	0	
U.S. Individuals	14	15	14	16	12	13	12	14	10	12	11	13	12	4	13	
U.D. INUIVIQUAIS	7.4	10	14	10	12	13	14	14	10	14	11	13	14	-	13	
Popoign Companyi	24	32	33	2.2	33	32	37	31	37	37	34	40	16	33	29	
Foreign Corporations Foreign Government	24	34	33 1	32	33	34	31	31	37	31	34	40	46 1	33	29	
	4	4		2	•	2	2	2	2	2	2	•		2		
Foreign Individuals	4	4	3	2	2	3	2	2	2	2	3	2	2	2	3	

Part B

Ranked Listing of Organizations with Patent Grants As Distributed By Year of Patent Grant and As Distributed By Year of Patent Application

REISSUE PATENTS, 1977-2003

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 Organizational	Patenting

(Granted: Jan 01, 1977 - Dec 31, 2003) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre															
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
HITACHI, LTD																
Patents By Year of Grant:	32	13	7	7	13	4	4	3	4	7	0	7	7	6	8	122
Patents By Year of Application:	57	10	14	8	1	1	6	8	3	3	5	4	2	0	0	122
GENERAL ELECTRIC COMPANY	4.0	-	_	-		2	-		2			2			•	
Patents By Year of Grant:	40 49	3 5	6 7	5	8 2	4	3	2	2	1 2	2	2	0	1 0	0	77 77
Patents By Year of Application:	49	5	/	2	2	4	3	0	2	4	U	T	U	U	U	11
AT&T CORP.																
Patents By Year of Grant:	41	4	5	1	2	4	2	0	0	0	0	1	0	0	0	60
Patents By Year of Application:	50	1	1	б	1	0	0	1	0	0	0	0	0	0	0	60
INTERNATIONAL BUSINESS MACHINES CORPO	RATION															
Patents By Year of Grant:	20	1	1	7	0	2	1	3	1	0	6	5	5	2	5	59
Patents By Year of Application:	28	2	4	1	1	3	5	6	2	2	2	2	1	0	0	59
MINNESOTA MINING AND MANUFACTURING CC																
Patents By Year of Grant:	23	4	0	1	2	3	7	2	5	1	4	2	1	0	1	56
Patents By Year of Application:	29	2	1	5	5	4	2	3	3	1	1	0	0	0	0	56
MITSUBISHI DENKI KABUSHIKI KAISHA																
Patents By Year of Grant:	4	5	2	1	3	6	2	3	4	1	7	9	0	2	2	51
Patents By Year of Application:	- 9	4	5	- 5	5	1	6	6	4	4	0	1	1	0	0	51
MATSUSHITA ELECTRIC INDUSTRIAL CO., L	TD.															
Patents By Year of Grant:	8	0	4	0	0	1	2	1	3	2	4	7	9	5	4	50
Patents By Year of Application:	12	0	1	1	3	5	3	5	3	6	5	4	2	0	0	50
E. I. DU PONT DE NEMOURS AND COMPANY																
Patents By Year of Grant:	34	0	2	1	0	2	0	1	0	2	1	1	3	1	1	49
Patents By Year of Application:	36	0	1	2	1	1	0	1	1	2	2	1	0	1	0	49
EASTMAN KODAK COMPANY																
Patents By Year of Grant:	34	1	0	2	0	1	1	1	0	5	0	1	0	1	2	49
Patents By Year of Application:	36	1	1	0	0	3	0	3	3	0	1	0	1	0	0	49
		_	-	,	,	2	-	-	-	-	_	-	_	-	1	
SONY CORPORATION																
Patents By Year of Grant:	9	4	2	0	0	3	1	2	1	2	1	7	6	4	5	47
Patents By Year of Application:	15	0	1	1	4	5	3	3	5	2	3	5	0	0	0	47
TOSHIBA CORPORATION																
Patents By Year of Grant:	3	0	0	2	0	2	3	1	1	5	4	11	4	4	2	42
Patents By Year of Application:	4	1	0	2	4	2	7	2	б	9	3	2	0	0	0	42

REISSUE PATENTS, 1977-2003

Organizational Patenting				(Grante	d: Jan 0	1, 1977	- Dec 31	, 2003)	R	anked Li	st of Or	ganizati	ons with	5 or	More Pat	tents
	Dese															
	Pre 1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
	1990	1990	1771	1772	1995	1774	1995	1990	1997	1990	1,7,7,7	2000	2001	2002	2005	IUIND
BAYER AKTIENGESELLSCHAFT																
Patents By Year of Grant:	25	2	1	2	0	3	1	0	0	1	1	2	2	1	0	41
Patents By Year of Application:	29	0	1	1	3	0	2	0	2	0	2	1	0	0	0	41
CANON KABUSHIKI KAISHA Patents By Year of Grant:	15	3	2	1	1	1	2	4	1	0	3	4	0	2	2	41
Patents By Year of Application:	21	2	1	2	3	0	4	1	4	1	1	- <u>+</u> 0	1	0	0	41
		-	-	-	5	Ū	-	-	-	-	-	Ū	-	·	·	
MICRON TECHNOLOGY, INC.																
Patents By Year of Grant:	0	0	0	0	1	1	0	0	1	8	8	8	3	3	3	36
Patents By Year of Application:	0	0	0	1	1	0	8	24	0	0	1	0	1	0	0	36
CATERPILLAR INC.	0.7	0	-	-	0	0	0	1	0	0	1	1	1	-	•	34
Patents By Year of Grant: Patents By Year of Application:	27 27	1	1	1	0	1	0	1	1	1	1	0	0	1 0	0	34
Fatents by leaf of Application:	21	-	-	U	U	-	U	1	1	1	-	U	0	U	U	51
FUJITSU LIMITED																
Patents By Year of Grant:	2	1	3	0	2	0	1	0	0	2	4	5	7	3	3	33
Patents By Year of Application:	6	1	1	0	1	0	1	7	7	1	7	1	0	0	0	33
NIKON CORPORATION	_			_		-							_		_	
Patents By Year of Grant: Patents By Year of Application:	5	0 1	0 1	1	1	1 2	0	0	2 1	3	2 5	4	5 1	4 0	5	33 33
Patents by lear of Application:	3	1	1	1	U	2	-		1	3	5	5	T	0	U	33
SEIKO EPSON CORPORATION																
Patents By Year of Grant:	1	0	0	2	1	0	3	2	0	1	2	4	1	6	10	33
Patents By Year of Application:	5	1	1	0	0	3	1	4	1	4	0	2	9	2	0	33
U.S. PHILIPS CORPORATION																
Patents By Year of Grant:	20	0	1	4	1	1 1	1 2	0	2	0	1 1	0	1 0	1	0	33
Patents By Year of Application:	22	2	1	3	1	1	2	0	0	0	1	0	0	0	0	33
RCA CORPORATION																
Patents By Year of Grant:	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
Patents By Year of Application:	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
RICOH COMPANY, LTD.																
Patents By Year of Grant:	5	2	0	1	1	0	2	0	2	0	3	2	6	3	3	30
Patents By Year of Application:	9	0	1	1	0	3	0	4	3	2	6	0	1	0	0	30
ASAHI KOGAKU KOGYO KABUSHIKI KAISHA																
Patents By Year of Grant:	5	0	0	1	2	1	1	5	2	1	5	6	0	0	0	29
Patents By Year of Application:	5	0	3	1	1	6	9	4	0	0	0	0	0	0	0	29

Organizational Patenting				(Grante	d: Jan 0	1, 1977	- Dec 31,	, 2003)	R	anked Li	st of Or	ganizati	ons with	5 or	More Pat	cents
	Pre 1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
EATON CORPORATION																
Patents By Year of Grant:	21	0	1	0	1	1	0	0	0	1	0	2	1	1	0	29
Patents By Year of Application:	22	0	1	2	0	0	0	2	1	0	0	1	0	0	0	29
DOW CHEMICAL COMPANY																
Patents By Year of Grant:	20	1	1	1	0	3	0	0	1	0	0	0	1	0	0	28
Patents By Year of Application:	22	0	1	3	1	1	0	0	0	0	0	0	0	0	0	28
XEROX CORPORATION																
Patents By Year of Grant:	18	2	0	1	0	0	0	0	2	1	0	0	1	0	1	26
Patents By Year of Application:	21	0	0	0	0	0	3	0	0	0	1	0	0	1	0	26
MOTOROLA, INC.																
Patents By Year of Grant:	14	1	0	1	1	1	0	2	0	0	0	2	0	1	0	23
Patents By Year of Application:	15	1	1	1	1	1	1	0	1	1	0	0	0	0	0	23
TEXAS INSTRUMENTS, INCORPORATED																
Patents By Year of Grant:	7	3	1	1	1	1	2	2	0	0	1	3	0	0	1	23
Patents By Year of Application:	13	2	0	1	1	2	2	0	0	1	0	1	0	0	0	23
ELI LILLY AND COMPANY																
Patents By Year of Grant:	17	1	0	0	0	0	1	0	0	0	0	0	0	2	1	22
Patents By Year of Application:	18	0	0	1	0	0	0	0	0	0	3	0	0	0	0	22
NEC CORPORATION																
Patents By Year of Grant:	10	0	1	0	1	0	0	0	0	2	2	1	2	2	0	21
Patents By Year of Application:	10	1	1	0	0	1	1	0	2	1	3	1	0	0	0	21
ALLIED-SIGNAL INC.																
Patents By Year of Grant:	13	1	0	0	1	1	2	1	0	0	0	0	0	1	0	20
Patents By Year of Application:	14	0	1	1	1	1	1	0	0	0	0	1	0	0	0	20
BASF AKTIENGESELLSCHAFT																
Patents By Year of Grant:	8	2	0	2	0	1	1	2	0	0	0	1	0	3	0	20
Patents By Year of Application:	10	2	0	1	1	2	1	2	0	0	0	0	1	0	0	20
OLYMPUS OPTICAL CO., LTD.																
Patents By Year of Grant:	2	0	1	3	1	1	1	0	1	0	2	1	3	2	2	20
Patents By Year of Application:	3	3	3	0	1	0	1	0	1	1	4	2	1	0	0	20
SIEMENS AKTIENGESELLSCHAFT																
Patents By Year of Grant:	7	0	1	1	0	0	1	0	0	0	3	0	0	2	5	20
Patents By Year of Application:	9	0	0	0	1	0	1	1	1	0	0	1	5	1	0	20

(Granted: Jan 01, 1977 - Dec 31, 2003) ---- Ranked List of Organizations with 5 or More Patents ----

REISSUE PATENTS, 1977-2003

---- Organizational Patenting

Organizational Patenting	Pre			(Grante	ed: Jan ()1, 1977	- Dec 31	, 2003)	F	anked Li	st or Ur	ganizati	ons with	5 or	More Pat	cents
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
EXXON RESEARCH + ENGINEERING CO.																
Patents By Year of Grant:	11	1	0	0	0	0	1	0	1	0	0	0	3	2	0	19
Patents By Year of Application:	12	0	0	0	2	0	0	0	0	5	0	0	0	0	0	19
MASSACHUSETTS INSTITUTE OF TECHNOLOGY	7	0	0	1	0	1	1	0	0	1	3	1	3	1	0	10
Patents By Year of Grant:	7	0	1	1	1	1	1	2	0	0	2	1	3	0	0	19 19
Patents By Year of Application:	,	1	1	T	T	2	2	2	0	U	2	U	U	U	U	19
MINOLTA CAMERA CO., LTD. Patents By Year of Grant:	7	1	0	1	4	2	0	0	2	0	1	0	0	0	1	19
Patents By Year of Application:	, 9	1	4	1	4	2	2	0	1	0	0	0	0	0	0	19
MOBIL OIL CORP.	5	-	-	1	1	Ū	2	Ŭ	1	Ū	Ŭ	Ū	Ū	Ū	Ū	17
Patents By Year of Grant:	14	0	1	1	2	0	0	0	0	0	0	1	0	0	0	19
Patents By Year of Application:	15	0	3	0	0	1	0	0	0	0	0	0	0	0	0	19
PHILLIPS PETROLEUM COMPANY																
Patents By Year of Grant:	13	1	1	0	2	0	0	0	0	0	0	0	0	2	0	19
Patents By Year of Application:	14	1	1	1	0	0	0	2	0	0	0	0	0	0	0	19
SGS-THOMSON MICROELECTRONICS S.R.L.																
Patents By Year of Grant:	0	0	0	0	0	0	2	1	8	3	3	2	0	0	0	19
Patents By Year of Application:	0	0	0	2	1	6	7	2	1	0	0	0	0	0	0	19
UNITED TECHNOLOGIES CORPORATION																
Patents By Year of Grant:	11	0	1	3	0	0	0	0	0	1	1	1	0	0	1	19
Patents By Year of Application:	12	3	0	0	0	0	0	1	0	1	2	0	0	0	0	19
SAMSUNG ELECTRONICS CO., LTD.																
Patents By Year of Grant:	0	0	0	0	1	0	1	1	0	0	4	2	0	9	0	18
Patents By Year of Application:	0	0	1	0	3	0	0	1	3	2	1	6	1	0	0	18
UNISYS CORPORATION	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Patents By Year of Grant: Patents By Year of Application:	17 18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	18 18
	10	Ŭ	Ū	Ū	Ū	0	Ū	Ū	Ŭ	Ū	Ŭ	Ū	Ū	Ū	Ū	10
AMERICAN CYANAMID COMPANY Patents By Year of Grant:	13	0	1	0	0	0	0	0	0	1	1	0	0	1	0	17
Patents By Year of Application:	13	1	0	0	0	0	0	2	0	0	0	1	0	0	0	17
HONEYWELL INC.	10	÷	Ū	Ū	v	v	Ū	4	v	U	Ū	÷	v	Ū	Ū	-/
Patents By Year of Grant:	10	0	0	0	0	0	1	1	1	0	1	3	0	0	0	17
Patents By Year of Application:	10	0	0	0	0	1	1	3	2	0	0	0	0	0	0	17
		÷	·	•	·	-	-	-	-	•	÷	÷	•	•	÷	

REISSUE PATENTS, 1977-2003

Organizational	Patenting
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(Granted: Jan 01, 1977 - Dec 31, 2003) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre															
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
IMPERIAL CHEMICAL INDUSTRIES PLC																
Patents By Year of Grant:	10	1	0	2	1	1	0	1	0	0	1	0	0	0	0	17
Patents By Year of Application:	13	1	2	0	1	0	0	0	0	0	0	0	0	0	0	17
L'OREAL S.A.					-				•						1.0	1.5
Patents By Year of Grant: Patents By Year of Application:	2	0	0	1	1	0	0	0	0	0	0	0	1	2	10	17 17
Patents by rear of Application:	2	4	U	U	U	U	U	U	T	U	2	2	0	0	0	17
UNION CARBIDE CORPORATION																
Patents By Year of Grant:	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Patents By Year of Application:	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
YAMAHA HATSUDOKI KABUSHIKI KAISHA, YA	мана мот	OR CO.,	LTD.													
Patents By Year of Grant:	5	1	0	1	1	2	2	1	1	0	0	0	2	1	0	17
Patents By Year of Application:	7	0	1	3	0	3	1	0	0	2	0	0	0	0	0	17
AMP INCORPORATED																
Patents By Year of Grant:	13	2	0	0	0	1	0	0	0	0	0	0	0	0	0	16
Patents By Year of Application:	15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	16
BAXTER INTERNATIONAL INC. Patents By Year of Grant:	11	0	2	0	0	1	0	0	0	1	0	0	1	0	0	16
Patents By Year of Application:	13	0	0	0	2	1	0	0	0	0	0	0	0	0	0	16
racened by rear or appreciation.	10	Ŭ	Ŭ	Ũ	-	-	v	Ū	Ū	Ū	Ū	Ū	v	v	v	10
DOW CORNING CORPORATION																
Patents By Year of Grant:	7	2	1	0	0	1	1	1	1	0	0	1	0	0	1	16
Patents By Year of Application:	9	1	0	1	2	1	0	1	0	0	0	0	1	0	0	16
NIPPON GAKKI SEIZO KABUSHIKI KAISHA																
Patents By Year of Grant:	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Patents By Year of Application:	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
NISSAN MOTOR COMPANY, LIMITED	-	•	0	2	1	-	•	-	1	•	0	0	1	-	1	16
Patents By Year of Grant: Patents By Year of Application:	7	0	0	2	1	1	0	1	1	0	0	0	1	1	1	16 16
Fatents by rear of Apprication:	,	4	U	-	v	-	U	U	U	U	U	3	U	U	0	TO
PAPST LICENSING GMBH & CO. KG																
Patents By Year of Grant:	0	0	0	0	0	1	0	1	1	2	1	1	3	3	3	16
	-	-			-			2	4	1	2	0	0	0		
Patents By Year of Application:	0	0	1	0	1	1	4	4	4		2	0	0	0	0	16
-	0	0	1	0	1	1	4	2	4	Ŧ	2	0	0	U	U	16
-	0	0	1	0	1	1	4	2	4	I	2	U	U	U	U	16
Patents By Year of Application:	0	0	1	0	1	1	4	0	4	1	0	0	0	0	0	16

REISSUE PATENTS, 1977-2003

Organizational Patenting				(Grante	d: Jan 0	1, 1977	- Dec 31,	, 2003)	R	anked Li	st of Or	ganizati	ons with	5 or	More Pat	ents
	Deve															
	Pre 1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
	1990	1990	1991	1772	1995	1991	1995	1990	1997	1990	1999	2000	2001	2002	2005	1011111
YAMAHA CORPORATION																
Patents By Year of Grant:	0	0	3	0	0	1	1	1	0	1	0	1	4	2	2	16
Patents By Year of Application:	3	0	1	1	1	1	0	1	2	1	2	3	0	0	0	16
FUJI PHOTO FILM CO., LTD	_			_	-		_						_			
Patents By Year of Grant:	7 7	0 1	0	1 2	1 0	0	1	0 0	0	1	1 0	0	1	0 1	2	15 15
Patents By Year of Application:	7	T	T	2	U	0	T	U	T	0	0	1	0	1	0	15
GENERAL MOTORS CORPORATION																
Patents By Year of Grant:	4	1	3	2	0	2	0	0	0	1	1	0	1	0	0	15
Patents By Year of Application:	6	2	2	1	1	0	0	1	1	0	0	1	0	0	0	15
LUCENT TECHNOLOGIES INC.																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	1	1	1	5	4	3	0	15
Patents By Year of Application:	0	0	0	0	0	3	2	3	1	2	3	1	0	0	0	15
ROBERT BOSCH GMBH			•		•			-	•	•						
Patents By Year of Grant: Patents By Year of Application:	11 11	0	0	0 1	0 1	1	0	1	0 1	0	1	0	0	0	1	15 15
facence by fear of Application.		U	v	-	-	U	U	U	-	Ū	U	-	U	U	Ū	15
DEERE + COMPANY																
Patents By Year of Grant:	13	0	0	1	0	0	0	0	0	0	0	0	0	0	0	14
Patents By Year of Application:	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	14
HONDA GIKEN KOGYO KABUSHIKI KAISHA (H		-														
Patents By Year of Grant:	2	5	1	2	0	1	1	0	0	0	1	0	0	1	0	14
Patents By Year of Application:	10	1	0	0	0	1	0	2	0	0	0	0	0	0	0	14
MONSANTO COMPANY, INC.																
Patents By Year of Grant:	11	1	0	0	0	0	0	0	0	0	0	1	0	1	0	14
Patents By Year of Application:	12	0	ů 0	0	ů 0	0	ů O	0	ů 0	1	0	1	0	0	ů 0	14
		-	-	-	-	-	-	-	-	-	-	-	-	-	3	
OUTBOARD MARINE CORPORATION																
Patents By Year of Grant:	9	0	0	1	1	1	1	0	0	0	1	0	0	0	0	14
Patents By Year of Application:	11	0	0	1	1	0	0	1	0	0	0	0	0	0	0	14
PROCTER + GAMBLE COMPANY	_	_	_	-	_	_	_	-	_	_	_	-	_	-	_	
Patents By Year of Grant:	5	0	0	2	0	2	1	0	0	0	1	2	0	0	1	14
Patents By Year of Application:	7	1	2	0	0	0	0	0	0	2	1	0	1	0	0	14
ROCKWELL INTERNATIONAL CORPORATION																
Patents By Year of Grant:	12	0	0	0	0	0	0	1	0	0	1	0	0	0	0	14
Patents By Year of Application:	12	0	0	1	0	0	0	1	0	0	0	0	ů O	0	0	14
			-							-						

Organizational Patenting				(Grante	ed: Jan O)1, 1977	- Dec 31	, 2003)	R	anked Li	st of Or	ganizati	ons with	5 or 1	More Pat	ents
	Pre															
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
SHARP KABUSHIKI KAISHA (SHARP CORPORA	-															
Patents By Year of Grant:	2	2	0	0	1	0	0	1	2	0	0	0	3	2	1	14
Patents By Year of Application:	4	0	0	1	2	1	0	0	0	2	1	3	0	0	0	14
VICTOR COMPANY OF JAPAN, LIMITED																
Patents By Year of Grant:	4	0	0	0	0	0	3	1	1	0	0	3	0	1	1	14
Patents By Year of Application:	4	0	0	1	3	1	0	0	0	2	1	2	0	0	0	14
CIBA-GEIGY CORPORATION																
Patents By Year of Grant:	8	1	0	0	0	1	2	1	0	0	0	0	0	0	0	13
Patents By Year of Application:	9	0	0	1	2	1	0	0	0	0	0	0	0	0	0	13
SGS-THOMSON MICROELECTRONICS S.A.																
Patents By Year of Grant:	0	0	0	0	0	2	0	3	1	1	4	2	0	0	0	13
Patents By Year of Application:	0	0	1	0	3	5	3	1	0	0	0	0	0	0	0	13
STMICROELECTRONICS S.R.L.																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	2	1	5	2	3	13
Patents By Year of Application:	0	0	0	0	1	1	4	1	1	0	5	0	0	0	0	13
TOYOTA JIDOSHA K.K.																
Patents By Year of Grant:	1	0	4	1	0	0	0	0	0	1	0	1	1	3	1	13
Patents By Year of Application:	5	1	0	0	1	0	0	1	0	0	3	2	0	0	0	13
3M INNOVATIVE PROPERTIES COMPANY																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	2	3	2	5	12
Patents By Year of Application:	0	0	0	1	0	0	0	0	0	1	5	3	1	1	0	12
CORNING INCORPORATED																
Patents By Year of Grant:	3	0	0	0	0	2	1	1	0	0	0	1	0	2	2	12
Patents By Year of Application:	3	1	0	1	1	1	0	1	0	1	2	0	1	0	0	12
HEWLETT-PACKARD COMPANY																
Patents By Year of Grant:	5	0	0	0	0	0	1	0	0	1	1	1	0	3	0	12
Patents By Year of Application:	5	0	0	0	0	2	1	0	0	3	0	1	0	0	0	12
SCHLUMBERGER TECHNOLOGY CORPORATION																
Patents By Year of Grant:	9	0	0	0	0	0	1	0	0	1	0	0	0	0	1	12
Patents By Year of Application:	9	0	0	0	0	1	0	1	0	0	0	0	1	0	0	12
DANA CORPORATION																
Patents By Year of Grant:	4	2	1	2	0	0	0	0	0	0	2	0	0	0	0	11
Patents By Year of Application:	6	2	1	0	0	0	0	1	1	0	0	0	0	0	0	11

REISSUE PATENTS, 1977-2003

	Organizational	Patenting
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(Granted: Jan 01, 1977 - Dec 31, 2003) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre																
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL	
HOECHST AKTIENGESELLSCHAFT																	
Patents By Year of Grant:	6	0	0	0	0	0	2	2	0	1	0	0	0	0	0	11	
Patents By Year of Application:	6	1	0	2	0	2	0	0	0	0	0	0	0	0	0	11	
HOFFMANN-LA ROCHE INC.																	
Patents By Year of Grant:	8	0	0	1	0	0	1	0	0	0	0	1	0	0	0	11	
Patents By Year of Application:	8	1	0	1	0	0	0	0	0	1	0	0	0	0	0	11	
MOLEX INCORPORATED	2	0	1	0	1	1	0	2	0	2	0	0	1	0	0	1 1	
Patents By Year of Grant:	3	0	1	0	1	1	0	2	0	2	0	0	1	0	0	11 11	
Patents By Year of Application: OLIN CORPORATION	3	T	T	0	2	U	1	2	0	U	I	0	U	0	0	11	
Patents By Year of Grant:	9	0	0	1	0	0	0	1	0	0	0	0	0	0	0	11	
Patents By Year of Application:	9	1	0	0	0	1	0	0	0	0	0	0	0	0	0	11	
SHELL OIL COMPANY																	
Patents By Year of Grant:	7	1	0	0	0	0	0	1	1	0	0	1	0	0	0	11	
Patents By Year of Application:	8	0	0	0	0	0	2	0	1	0	0	0	0	0	0	11	
UPJOHN COMPANY																	
Patents By Year of Grant:	9	1	0	0	0	0	1	0	0	0	0	0	0	0	0	11	
Patents By Year of Application:	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	11	
AMOCO CORPORATION	_																
Patents By Year of Grant:	7	0	0	0	2	0	0	0	1	0	0	0	0	0	0	10	
Patents By Year of Application: ASAHI KASEI KOGYO KABUSHIKI KAISHA	8	0	0	1	0	1	0	0	0	0	0	0	0	0	0	10	
Patents By Year of Grant:	5	0	0	1	0	0	1	0	1	0	0	0	0	0	2	10	
Patents By Year of Application:	6	1	0	0	0	1	0	0	0	0	0	0	1	1	0	10	
BETHLEHEM STEEL CORPORATION	0	-	Ŭ	Ū	Ŭ	-	Ū	Ū	Ū	0	Ū	Ū	1	-	Ŭ	10	
Patents By Year of Grant:	8	0	0	0	0	0	0	0	1	0	0	0	0	1	0	10	
Patents By Year of Application:	8	0	0	0	0	1	0	0	0	0	1	0	0	0	0	10	
INTERNATIONAL PAPER CO.																	
Patents By Year of Grant:	5	2	0	0	0	0	0	0	0	0	1	0	0	2	0	10	
Patents By Year of Application:	7	0	0	0	0	0	0	0	1	1	-	0	0	0	0	10	
KONICA CORPORATION			-	-	÷		-	•	-	-	-	•	•	-	-		
Patents By Year of Grant:	1	0	1	1	1	1	0	0	1	0	2	1	0	1	0	10	
Patents By Year of Application:	3	3	0	0	0	0	3	1	0	0	0	0	0	0	0	10	
rationes by rear of Appreacion:	5	5	v	v	0	v	5	-	v	v	v	Ū	Ū	0	0	10	

REISSUE PATENTS, 1977-2003

Page B - 9

---- Organizational Patenting

(Granted: Jan 01, 1977 - Dec 31, 2003) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre															
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
MEDTRONIC INC.																
Patents By Year of Grant:	6	0	0	0	0	0	0	0	1	0	0	1	2	0	0	10
Patents By Year of Application:	6	0	0	0	0	1	1	0	2	0	0	0	0	0	0	10
NATIONAL RESEARCH DEVELOPMENT CORPORA									0			0	0	0		10
Patents By Year of Grant:	6	0	1	1	2	0	0	0	0	0	0	0	0	0	0	10
Patents By Year of Application:	8	U	2	U	U	0	U	U	U	U	0	U	U	U	0	10
OTIS ENGINEERING CORPORATION																
Patents By Year of Grant:	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	10
Patents By Year of Application:	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	_ 5	2	2	2	,	2	-	-	-	-	-	-	-	-	2	
THOMAS + BETTS CORPORATION																
Patents By Year of Grant:	8	0	0	0	0	0	1	0	0	0	0	0	0	0	1	10
Patents By Year of Application:	8	0	0	0	1	0	0	0	0	0	0	0	1	0	0	10
BORG-WARNER CORPORATION																
Patents By Year of Grant:	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Patents By Year of Application:	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
BROTHER KOGYO KABUSHIKI KAISHA	2	0	0	0	1	1	2		1	0		0	0	0	0	9
Patents By Year of Grant: Patents By Year of Application:	2	1	1	1	0	1	2	1	0	0	1	0	0	0	0	9
Patents by fear of Application:	3	T	1	T	0	1	2	U	U	0	0	0	U	0	0	9
CARRIER CORPORATION																
Patents By Year of Grant:	5	0	0	0	0	0	0	0	0	1	1	1	0	1	0	9
Patents By Year of Application:	5	0	0	0	0	0	1	2	0	1	0	0	0	0	0	9
CHEVRON RESEARCH & TECHNOLOGY CO.																
Patents By Year of Grant:	7	0	0	0	1	0	0	0	0	0	1	0	0	0	0	9
Patents By Year of Application:	7	0	1	0	0	1	0	0	0	0	0	0	0	0	0	9
ROHM AND HAAS COMPANY																
Patents By Year of Grant:	7	0	0	0	1	0	0	0	0	0	1	0	0	0	0	9
Patents By Year of Application:	7	1	0	0	0	0	0	0	1	0	0	0	0	0	0	9
STMICROELECTRONICS, INC.	0	0	0	0	0	0	0	0	0	0	2	1	1	3	2	9
Patents By Year of Grant: Patents By Year of Application:	0	0	0	0	0	2	0	0	2	0	2	4	0	3	2	9
Fatents by rear of Application:	U	U	U	U	U	2	U	U	2	T	U	4	U	0	U	3
TRW INC.																
Patents By Year of Grant:	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Patents By Year of Application:	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	-	,	5	5	,	5	-	-	-	-	-	-	-	-	5	-

REISSUE PATENTS, 1977-2003

Organizational Patenting				(Grante	d: Jan (01, 1977	- Dec 31	, 2003)	R	anked Li	st of Or	ganizati	ons with	5 or	More Pa	tents
	Pre															
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
UNIVERSITY OF CALIFORNIA, THE REGENT	S OF															
Patents By Year of Grant:	2	2	0	0	1	1	0	0	1	0	0	0	0	1	1	9
Patents By Year of Application:	5	0	0	2	0	0	0	0	0	0	1	0	1	0	0	9
ABBOTT LABORATORIES																
Patents By Year of Grant:	4	1	0	1	1	0	0	0	0	0	0	1	0	0	0	8
Patents By Year of Application:	7	0	0	0	0	0	1	0	0	0	0	0	0	0	0	8
ANALOG DEVICES, INC.		~	•	~	~	•	~	~	~	-	~	-	~	-	-	0
Patents By Year of Grant:	4	0	0	0	0	0	0	0	0	1	0	1	0	1	1	8
Patents By Year of Application:	4	0	U	U	U	1	U	U	U	1	2	U	U	0	U	8
ASAHI GLASS COMPANY, LTD.																
Patents By Year of Grant:	1	0	0	0	0	0	0	0	0	0	1	1	3	1	1	8
Patents By Year of Application:	1	0	0	0	0	0	0	1	1	2	1	2	0	0	0	8
racenes by rear of appreciation.	-	Ŭ	Ŭ	Ŭ	Ū	Ŭ	Ū	-	-	-	-	-	v	v	Ũ	Ū
BOEING COMPANY																
Patents By Year of Grant:	4	0	0	1	0	0	1	0	0	0	0	2	0	0	0	8
Patents By Year of Application:	5	0	0	0	1	0	0	1	0	1	0	0	0	0	0	8
BRITISH TELECOMMUNICATION, PLC																
Patents By Year of Grant:	0	1	0	0	1	1	2	0	0	1	0	0	0	2	0	8
Patents By Year of Application:	1	1	0	2	2	0	0	0	0	0	0	0	2	0	0	8
GIST-BROCADES N.V.	_			-												
Patents By Year of Grant:	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	8
Patents By Year of Application:	7	1	0	0	0	0	0	0	0	0	0	0	0	0	U	8
GOODYEAR TIRE + RUBBER COMPANY																
Patents By Year of Grant:	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Patents By Year of Application:	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
······································	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-
MEAD CORPORATION																
Patents By Year of Grant:	6	0	1	0	0	0	0	1	0	0	0	0	0	0	0	8
Patents By Year of Application:	7	0	0	0	0	1	0	0	0	0	0	0	0	0	0	8
PAPST-MOTOREN KG																
Patents By Year of Grant:	2	1	0	2	2	0	0	0	0	1	0	0	0	0	0	8
Patents By Year of Application:	6	1	0	0	0	0	0	1	0	0	0	0	0	0	0	8
R. J. REYNOLDS TOBACCO COMPANY	~	~	•	~	~	•	~	~	~	~	~	~	~	~	~	0
Patents By Year of Grant:	8	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	8
Patents By Year of Application:	8	U	U	0	U	0	U	U	U	U	U	0	0	0	U	ð

Organizational Patenting				(Grante	ed: Jan 0	1, 1977	- Dec 31	, 2003)	R	anked Li	st of Or	ganizati	ons with	5 or	More Pat	ents
	Pre 1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
	1990	1990	1991	1992	1993	1994	1995	1990	1997	1990	1999	2000	2001	2002	2005	IUIAL
SANDERS ASSOCIATES INC.																
Patents By Year of Grant:	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Patents By Year of Application:	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
SECRETARY OF STATE FOR DEFENCE IN HER	BRITANN	IC MAJES	TY'S GOV	ERNMENT	OF THE U	NITED KI	NGDOM									
Patents By Year of Grant:	3	1	0	0	0	1	0	1	0	0	0	0	1	1	0	8
Patents By Year of Application:	4	0	0	0	1	0	2	1	0	0	0	0	0	0	0	8
SUWA SEIKOSHA CO., LTD.																
Patents By Year of Grant:	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Patents By Year of Application:	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
TELEFONAKTIEBOLAGET LM ERICSSON																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	1	2	0	2	3	0	8
Patents By Year of Application:	0	0	0	0	2	0	0	0	2	2	2	0	0	0	0	8
AKZONA INCORPORATED																
Patents By Year of Grant:	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Patents By Year of Application:	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
BAKER HUGHES INCORPORATED																
Patents By Year of Grant:	0	0	0	0	1	1	0	1	0	0	1	1	1	0	1	7
Patents By Year of Application:	0	0	0	2	0	1	1	0	1	2	0	0	0	0	0	7
BP CHEMICALS LIMITED																
Patents By Year of Grant:	2	0	0	0	1	0	0	2	1	0	0	1	0	0	0	7
Patents By Year of Application:	2	0	0	1	0	0	3	0	0	1	0	0	0	0	0	7
BRISTOL-MYERS SQUIBB COMPANY																
Patents By Year of Grant:	5	0	0	0	0	0	0	0	1	0	1	0	0	0	0	7
Patents By Year of Application:	5	0	0	0	1	1	0	0	0	0	0	0	0	0	0	7
BRUNSWICK CORPORATION																
Patents By Year of Grant:	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7
Patents By Year of Application:	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
CASIO COMPUTER CO. LTD.																
Patents By Year of Grant:	0	1	2	0	2	0	0	0	0	0	1	0	0	0	1	7
Patents By Year of Application:	2	2	1	1	0	0	0	0	1	0	0	0	0	0	0	7
EXXON PRODUCTION RESEARCH COMPANY																
Patents By Year of Grant:	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	7
Patents By Year of Application:	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7

(Granted: Jan 01, 1977 - Dec 31, 2003) ---- Ranked List of Organizations with 5 or More Patents ----

REISSUE PATENTS, 1977-2003

---- Organizational Patenting

Organizational Patenting	Pre			(Grance	d: Jan U	1, 1977	- Dec 31	, 2003)	K	anked Li	SC OI OI	ganizati	ons with	5 01	MOIE Pat	Jents
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
HALLIBURTON CO.																
Patents By Year of Grant:	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Patents By Year of Application:	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
HITACHI METALS LTD.																
Patents By Year of Grant:	2	0	1	0	1	0	0	0	0	0	0	0	0	1	2	7
Patents By Year of Application:	3	1	0	0	0	0	0	0	0	1	0	0	2	0	0	7
HOBART CORPORATION																
Patents By Year of Grant:	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7
Patents By Year of Application:	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
HUGHES AIRCRAFT COMPANY		0	0	0	2	0	1	0	0	0	•	0	0	0	0	7
Patents By Year of Grant:	4	0	0	0	2	1	0	0	0	0	0	0	0	0	0	7
Patents By Year of Application:		· ·		-	· ·	-	Ū	U	U	U	U	U	U	U	0	1
L'AIR LIQUIDE, SOCIETE ANONYME POUR L												_	_			_
Patents By Year of Grant:	1	0	0	0	0	1	0	0	0	1	1	1	1	0	1	7
Patents By Year of Application:	1	U	T	0	0	U	2	T	0	T	U	U	0	1	U	1
LG ELECTRONICS INC. Patents By Year of Grant:	0	0	0	0	0	٥	0	0	0	0	٥	3	4	0	0	7
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	6	1	0		0	0	7
	Ŭ	Ŭ	Ū	Ū	Ū	Ű	0	Ū	Ū	Ū	-	Ű	Ŭ	Ŭ	Ŭ	,
MERCK + CO., INC.	F	0	0	0	0	0	0	0	0	0	0	2	0	0	0	7
Patents By Year of Grant: Patents By Year of Application:	5	0	0	0	0	0	0	0	0	2	0	2	0	0	0	7
NIPPONDENSO CO., LTD.	J	Ū	0	U	0	0	0	0	0	2	0	0	Ū	Ū	0	1
Patents By Year of Grant:	1	0	0	0	0	1	3	0	1	0	1	0	0	0	0	7
Patents By Year of Application:	1	1	0	0	4	0	1	0	0	0	0	0	0	0	0	7
OWENS-ILLINOIS INC.	-	-	Ū	0	-	Ū	-	Ū	Ū	Ū	Ū	Ū	Ŭ	Ŭ	Ŭ	,
OWENS-ILLINOIS INC. Patents By Year of Grant:	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Patents By Year of Grant: Patents By Year of Application:	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	,	Ŭ	Ū	Ū	Ū	Ū	Ū	Ū	Ū	Ū	Ū	Ū	Ŭ	Ŭ	Ū	,
PITNEY-BOWES, INC. Patents By Year of Grant:	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7
Patents By Year of Grant: Patents By Year of Application:	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7
		U	Ŧ	U	U	U	U	U	U	U	U	U	U	U	5	1
SEMICONDUCTOR ENERGY LABORATORY CO., 3	LTD. 0	1	0	1	0	1	0	0	0	0	1	0	1	0	2	7
Patents By Year of Grant: Patents By Year of Application:	0	1	0	1	0	1	0	0	0	0	1	0	1	0	2 0	7
Facents by rear of Apprication:	T	Ŧ	U	T	U	U	U	T	Ŧ	Ŧ	U	U	Ŧ	U	U	/

REISSUE PATENTS, 1977-2003

(Granted: Jan 01, 1977 - Dec 31, 2003) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre															
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
STANFORD UNIVERSITY, LELAND JUNIOR,				_	_	_				-		_	_	_	_	_
Patents By Year of Grant:	1	1	0	0	0	1	1	1	0	0	0	0	1	0	1	7 7
Patents By Year of Application:	2	T	0	0	2	U	0	0	0	0	1	0	0	T	0	7
STAUFFER CHEMICAL COMPANY																
Patents By Year of Grant:	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Patents By Year of Application:	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
UNITED STATES OF AMERICA, NAVY																
Patents By Year of Grant:	0	0	0	1	2	0	0	0	0	0	1	2	1	0	0	7
Patents By Year of Application:	1	1	1	0	0	0	1	1	0	1	0	1	0	0	0	7
WARNER-LAMBERT COMPANY																
Patents By Year of Grant:	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Patents By Year of Application:	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
ADVANCED CARDIOVASCULAR SYSTEMS, INC																
ADVANCED CARDIOVASCULAR SYSTEMS, INC Patents By Year of Grant:	•	1	0	1	1	2	0	1	0	0	0	0	0	0	0	6
Patents By Year of Application:	2	1	0	3	0	2	0	0	0	0	0	0	0	0	0	6
	-	-	Ū	5	Ũ	v	v	v	v	Ũ	Ū	Ū	v	Ū	Ū	Ū
AIR PRODUCTS AND CHEMICALS, INC.																
Patents By Year of Grant:	2	0	0	1	0	1	0	0	1	0	0	0	0	0	1	6
Patents By Year of Application:	2	0	1	1	0	0	0	1	0	0	0	0	0	1	0	б
B. F. GOODRICH CO.																
Patents By Year of Grant:	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	6
Patents By Year of Application:	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	6
BALL CORPORATION	-	1	•	0	•	•	•	0	•	•	0	0	0	0		c
Patents By Year of Grant: Patents By Year of Application:	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6
FALENCE BY TEAT OF APPLICATION:	o	U	U	U	U	U	U	U	U	U	U	U	U	U	0	0
BENDIX CORPORATION(NOW ALLIED-SIGNAL	INC.)															
Patents By Year of Grant:	1NC.) 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Patents By Year of Application:	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
CASCHEM, INC.																
Patents By Year of Grant:	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	6
Patents By Year of Application:	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6
CITIZEN WATCH CO., LTD.																
Patents By Year of Grant:	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	6
Patents By Year of Application:	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	6

REISSUE PATENTS, 1977-2003

Organizational Patenting				(Grante	d: Jan ()1, 1977	- Dec 31	, 2003)	R	anked Li	st of Or	ganizati	ons with	5 or	More Pat	tents
	Pre															
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
CPC INTERNATIONAL INC.																
Patents By Year of Grant:	5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	6
Patents By Year of Application:	5	0	0	0	0	0	1	0	0	0	0	0	0	0	0	6
CUMMINS ENGINE CO., INC.																
Patents By Year of Grant:	2	0	0	0	0	0	0	0	0	1	1	0	1	1	0	6
Patents By Year of Application:	2	0	0	0	0	0	0	2	0	0	0	2	0	0	0	6
FMC CORPORATION																
Patents By Year of Grant:	3	0	0	0	0	0	1	0	1	0	0	0	0	0	1	6
Patents By Year of Application:	3	0	0	0	1	0	0	1	0	0	1	0	0	0	0	6
FORD MOTOR COMPANY	1	-	0	1	1	•	0	•	0	0	0	0	0		0	c.
Patents By Year of Grant:	1	1	2	1	1	2	0	0	0	0	0	0	0	0	0	6 6
Patents By Year of Application:	2	0	2	1	1	U	0	0	U	0	0	U	0	U	U	0
GENERAL SIGNAL CORPORATION																
Patents By Year of Grant:	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Patents By Year of Application:	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
HERCULES INCORPORATED																
Patents By Year of Grant:	4	0	0	0	0	0	1	0	1	0	0	0	0	0	0	6
Patents By Year of Application:	4	0	0	0	1	0	1	0	0	0	0	0	0	0	0	6
INTEL CORPORATION																
Patents By Year of Grant:	0	0	1	0	0	0	0	0	0	0	2	1	1	0	1	6
Patents By Year of Application:	0	1	0	0	0	0	1	2	0	0	0	1	1	0	0	6
J. M. HUBER CORPORATION																
Patents By Year of Grant:	3	0	0	0	0	0	0	2	1	0	0	0	0	0	0	6
Patents By Year of Application:	3	0	0	0	0	0	3	0	0	0	0	0	0	ů 0	0	6
	5	v	Ū	·	·	Ŭ	Ū	·	Ū	·	·	Ū	·	·	Ū	Ū.
JOHNS-MANVILLE CORPORATION																
Patents By Year of Grant:	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Patents By Year of Application:	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
KENNAMETAL INC.																
Patents By Year of Grant:	3	0	0	0	1	0	0	0	0	0	0	0	1	0	1	6
Patents By Year of Application:	4	0	0	0	0	0	0	0	0	0	1	0	1	0	0	6
KOBE STEEL LTD.	1	2	0	0	0	0	0	0	0	0	1	0	0	1	7	E
Patents By Year of Grant: Patents By Year of Application:	1 3	2 0	0	0	0 0	0	0	0	0	0	1	0	0	1 1	1	6 6
facents by fear of Appileation:	5	U	v	v	0	U	U	U	-	v	U	-	U	1	J	0

	Organizational Patenting				(Grante	ed: Jan 0	1, 1977	- Dec 31	, 2003)	R	anked Li	st of Or	ganizati	ons with	5 or	More Pat	cents
1990 1990 1991 1992 1990 1990 1990 1990 2000 2001 2000 2001 2000 2001 2000 2001 2000 2001 2000 2001 2000 2001 2000 2001 <																	
LITTON AVETAME INC. DETAINS BY Year of Grant: Patente BY Year of Application: S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	
Prints by Yaar of Grant: 3 0 1 0 1 1 0 <td></td> <td>1990</td> <td>1990</td> <td>1991</td> <td>1992</td> <td>1993</td> <td>1994</td> <td>1995</td> <td>1996</td> <td>1997</td> <td>1998</td> <td>1999</td> <td>2000</td> <td>2001</td> <td>2002</td> <td>2003</td> <td>TOTAL</td>		1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
Prints by Yaar of Grant: 3 0 1 0 1 1 0 <td>LITTON SYSTEMS INC</td> <td></td>	LITTON SYSTEMS INC																
Patents Ty Yaar of Application: 3 0 1 0 1 0		3	0	0	1	0	0	1	1	0	0	0	0	0	0	0	6
NAX - PAINCY - DESILATION TO PRODUMING DER WITSENSCHATTEN E.V Pacente BY Very Construction 4 0 <t< td=""><td>-</td><td></td><td>-</td><td>-</td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td></t<>	-		-	-		-						-			-		
Presents By Year of Again 4 0 <td></td> <td>-</td> <td>-</td> <td>_</td> <td>-</td> <td>_</td> <td>_</td> <td>-</td>		-	-	_	-	_	_	-	-	-	-	-	-	-	-	-	-
Patents By Year of Application: 4 0 0 0 0 0 0 0 1 0 1 0 0 0 6 MORE HORMES MCH. 1 1 0<	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG	J DER WIS	SENSCHAF	TEN E.V													
Normal in its is a serie of the series of th	Patents By Year of Grant:	4	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6
Patents By Year of Application: 3 1 1 0 <t< td=""><td>Patents By Year of Application:</td><td>4</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td><td>6</td></t<>	Patents By Year of Application:	4	0	0	0	0	0	0	0	0	1	0	1	0	0	0	6
Patents By Year of Application: 5 0 <t< td=""><td>MOORE BUSINESS FORMS INC.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	MOORE BUSINESS FORMS INC.																
NIFPON STEL COPP. Patents By Year of Grant: 4 0 0 1 0	Patents By Year of Grant:	3	1	1	0	0	0	1	0	0	0	0	0	0	0	0	6
Patents By Year of Grant: 4 0 0 1 0 0 1 0<	Patents By Year of Application:	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
Patents By Year of Grant: 4 0 0 1 0 0 1 0<																	
Patents By Year of Application: 4 0 1 0																	
NORE 1 OF 0.4 LINES IN CONSISTION Patents By Year of Grant: 2 2 0 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0<	-		-	-			-		-	-		-			-		
Patents by Year of Grant: 2 2 0 0 0 1 0 0 1 0<	Patents By Year of Application:	4	0	1	0	0	1	0	0	0	0	0	0	0	0	0	6
Patents By Year of Application: 4 0 0 1 0	NORDSON CORPORATION																
PARTY A. A. S. C. M. M. C. M. M. C. M. C. M. C. M. M. M. C. M. C. M.	Patents By Year of Grant:	2	2	0			0			0		0	0	0	0	0	6
Patents By Year of Grant: 6 0<	Patents By Year of Application:	4	0	0	0	1	0	0	1	0	0	0	0	0	0	0	6
Patents By Year of Application: 6 0	POLAROID CORPORATION																
RHONE FOULENC AGROCHIMTE LIMITED Patents By Year of Grant: 6 0 </td <td>Patents By Year of Grant:</td> <td>6</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>6</td>	Patents By Year of Grant:	6	0	0	0	0	0		0	0	0		0	0	0	0	6
Patents By Year of Grant: 6 0<	Patents By Year of Application:	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Patents By Year of Application: 6 0	RHONE-POULENC AGROCHIMIE LIMITED																
SANSHIN KOGYO KABUSHIKI KAISHA Patents By Year of Grant: 2 0 0 0 1 0 0 1 0 2 0 6 Patents By Year of Application: 2 0 0 0 1 0 0 0 1 0 0 1 0 0 1 0 0 6 SANYO ELECTRIC CO., LTD.	Patents By Year of Grant:	6	0	0	0	0	0		0	0	0	-	0	0	0	0	6
Patents By Year of Grant: 2 0 0 0 0 1 0 0 1 0 2 0 6 Patents By Year of Application: 2 0 0 0 1 0 0 1 0 0 1 0 0 1 0 0 6 SANYO ELECTRIC CO., LTD. Very Year of Grant: 2 0 1 0 0 0 0 0 0 0 0 0 0 6 6 Patents By Year of Grant: 2 0 1 0 </td <td>Patents By Year of Application:</td> <td>6</td> <td>0</td> <td>6</td>	Patents By Year of Application:	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Patents By Year of Application: 2 0 0 1 0 0 1 0 0 0 0 6 SANYO ELECTRIC CO., LTD.	SANSHIN KOGYO KABUSHIKI KAISHA																
SANYO ELECTRIC CO., LTD. Patents By Year of Grant: 2 0 1 0 0 0 0 0 0 2 0 6 Patents By Year of Grant: 3 0 0 1 0 0 0 0 0 0 2 0 6 SEAGATE TECHNOLOGY, INCORPORATED	Patents By Year of Grant:	2	0	0		-	-		-	-		-		0	_	0	6
Patents By Year of Grant: 2 0 1 0 1 0 0 0 0 0 0 0 0 2 0 6 Patents By Year of Application: 3 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 6 6 SEAGATE TECHNOLOGY, INCORPORATED	Patents By Year of Application:	2	0	0	0	1	0	0	1	1	0	0	1	0	0	0	6
Patents By Year of Application: 3 0 0 1 0 0 1 0 0 1 0	SANYO ELECTRIC CO., LTD.																
SEAGATE TECHNOLOGY, INCORPORATED Patents By Year of Grant: 0 0 2 0 0 1 0 1 0 2 0 0 6 Patents By Year of Application: 0 1 1 0 0 2 1 0 0 1 0 0 6 SGS-THOMSON MICROELECTRONICS, INC.	Patents By Year of Grant:		-						-			-				-	
Patents By Year of Grant: 0 0 0 2 0 0 1 0 1 0 2 0 0 0 6 Patents By Year of Application: 0 1 1 0 2 1 0 0 1 0 0 0 0 0 6 SGS-THOMSON MICROELECTRONICS, INC. Image: Construct of Grant: 1 0 0 0 1 0 1 0 1 0 0 6	Patents By Year of Application:	3	0	0	1	0	0	1	0	0	0	0	1	0	0	0	6
Patents By Year of Application: 0 1 1 0 0 2 1 0 0 1 0 0 0 0 0 6 SGS-THOMSON MICROELECTRONICS, INC. Patents By Year of Grant: 1 0 0 0 0 0 1 1 1 0 1 0 6	SEAGATE TECHNOLOGY, INCORPORATED																
SGS-THOMSON MICROELECTRONICS, INC. Patents By Year of Grant: 1 0 0 0 0 0 1 0 1 1 1 0 1 0 6	Patents By Year of Grant:					-									-		
Patents By Year of Grant: 1 0 0 0 1 0 1 0 1 0 0 6	Patents By Year of Application:	0	1	1	0	0	2	1	0	0	1	0	0	0	0	0	6
•	SGS-THOMSON MICROELECTRONICS, INC.																
Patents By Year of Application: 1 0 1 0 2 1 0 1 0 0 0 0 0 6	Patents By Year of Grant:	1	0	0	0	0	0	1	0	1	1	1	0	1	0	0	6
	Patents By Year of Application:	1	0	0	1	0	2	1	0	1	0	0	0	0	0	0	6

REISSUE PATENTS, 1977-2003

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(Granted: Jan 01, 1977 - Dec 31, 2003) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre																
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL	
SHIMANO INDUSTRIAL COMPANY, LIMITED																	
Patents By Year of Grant:	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
Patents By Year of Application:	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
SINGER COMPANY																_	
Patents By Year of Grant:	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
Patents By Year of Application:	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
SMITH INTERNATIONAL INC.																	
	1	0	1	0	0	0	0	0	0	0	2	1	1	0	0	c	
Patents By Year of Grant:	1	0	0	0	0	0	0	3	0	1	2	0	0	0	0	6	
Patents By Year of Application:	2	U	U	0	0	U	U	3	U	1	0	0	U	U	U	0	
SUN MICROSYSTEMS, INC.																	
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	1	1	0	0	4	6	
Patents By Year of Application:	0	0	0	0	0	0	0	2	0	0	1	2	1	0	- <u>+</u> 0	6	
Fatence by fear of Application.	Ū	U	Ū	Ū	0	Ū	Ū	4	Ū	Ū	-	2	-	Ū	Ū	0	
UNITED STATES OF AMERICA, DEPARTMENT	OF ENERG	Y															
Patents By Year of Grant:	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
Patents By Year of Application:	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
USX CORPORATION																	
Patents By Year of Grant:	5	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6	
Patents By Year of Application:	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	6	
W. R. GRACE & COCONN.																	
Patents By Year of Grant:	4	0	0	0	0	0	1	1	0	0	0	0	0	0	0	6	
Patents By Year of Application:	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6	
WESTVACO CORPORATION																	
Patents By Year of Grant:	5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	6	
Patents By Year of Application:	5	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6	
AKZO N.V.					-		_	_								_	
Patents By Year of Grant:	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5	
Patents By Year of Application:	2	0	2	T	U	U	0	U	U	U	U	U	0	0	0	5	
AMPEX CORP.																	
Patents By Year of Grant:	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	5	
Patents By Year of Application:	* 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
ratents by rear of Apprication:	5	U	U	U	U	U	U	U	U	U	U	U	U	U	U	2	
ATELIERS DES CHARMILLES S.A.																	
Patents By Year of Grant:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
Patents By Year of Application:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
· · · · · · · · · · · · · · · · · · ·	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

REISSUE PATENTS, 1977-2003

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---- Organizational Patenting

(Granted: Jan 01, 1977 - Dec 31, 2003) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre															
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
ATLANTIC RICHFIELD COMPANY																
Patents By Year of Grant:	2	1	0	0	0	0	0	0	2	0	0	0	0	0	0	5
Patents By Year of Application:	3	0	0	0	1	0	1	0	0	0	0	0	0	0	0	5
AUTOMOTIVE PRODUCTS PLC																
Patents By Year of Grant:	2	1	1	0	0	0	1	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	3	1	0	0	1	0	0	0	0	0	0	0	0	0	0	5
BLACK & DECKER INC.		-									_					_
Patents By Year of Grant:	0	1	0	0	0	0	0	0	0	0	1	0	2	1	0	5
Patents By Year of Application:	1	0	0	0	1	0	0	0	0	1	2	0	0	0	0	5
BOEHRINGER MANNHEIM G.M.B.H.																
Patents By Year of Grant:	0	0	0	0	1	2	1	0	0	1	0	0	0	0	0	5
Patents By Year of Application:	0	0	1	2	1	2	0	1	0	0	0	0	0	0	0	5
Lectrop by four of appreciation.	v	v	-	-	-	v	v	-	v	v	Ŭ	v	v	v	J	5
CHURCH + DWIGHT CO., INC.																
Patents By Year of Grant:	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	5
CINCINNATI MILACRON INC.																
Patents By Year of Grant:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
COCA-COLA COMPANY																
Patents By Year of Grant:	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5
DISCOVISION ASSOCIATES		•	0	~	~	0	•	•	0	~	~	•	•	-	~	F
Patents By Year of Grant:	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5
Patents By Year of Application:	4	U	U	0	T	U	U	U	U	U	U	U	U	U	U	5
EMERSON ELECTRIC CO.																
Patents By Year of Grant:	3	0	1	0	0	0	0	0	0	0	0	1	0	0	0	5
Patents By Year of Application:	4	0	0	0	0	0	0	0	1	0	0	0	0	0	0	5
ETHYL CORPORATION																
Patents By Year of Grant:	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5
Patents By Year of Application:	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5
GENERAL INSTRUMENT CORPORATION																
Patents By Year of Grant:	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5
Patents By Year of Application:	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5

REISSUE PATENTS, 1977-2003

Organizational Patenting				(Grante	ed: Jan (01, 1977	- Dec 31	, 2003)	R	anked Li	st of Or	ganizati	ons with	5 or	More Pa	tents
	Pre															
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
	1990	1990	1771	1772	1995	1774	1775	1990	1997	1000	1,7,7,7	2000	2001	2002	2005	IUIAL
HITACHI CABLE, LTD.																
Patents By Year of Grant:	2	0	0	0	0	1	0	0	0	0	1	0	1	0	0	5
Patents By Year of Application:	2	1	0	0	0	0	0	0	0	1	1	0	0	0	0	5
IDEMITSU KOSAN COMPANY LIMITED																
Patents By Year of Grant:	2	0	0	0	0	0	0	1	0	0	0	1	1	0	0	5
Patents By Year of Application:	2	0	0	0	1	0	0	0	0	1	0	1	0	0	0	5
INTERNATIONAL FLAVORS + FRAGRANCES I																
Patents By Year of Grant:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
LAITRAM CORPORATION																
Patents By Year of Grant:	2	0	0	1	0	2	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	2	0	1	0	2	0	0	0	0	0	0	0	0	0	0	5
LEVER BROTHERS COMPANY, DIVISION OF																
Patents By Year of Grant:	2	0	0	1	0	0	0	0	0	0	0	1	0	1	0	5 5
Patents By Year of Application:	3	0	0	0	0	0	0	0	0	0	2	0	0	0	0	5
LUBRIZOL CORPORATION Patents By Year of Grant:	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5
Patents By Year of Application:	4	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5
racenes by rear of appreciation.	-	Ű	Ū	Ű	v	v	Ű	-	Ũ	Ū	Ũ	v	v	Ũ	v	5
MITSUBISHI RAYON CO., LTD.																
Patents By Year of Grant:	2	0	0	1	0	0	0	0	1	0	0	0	0	0	1	5
Patents By Year of Application:	3	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5
MOLINS LIMITED																
Patents By Year of Grant:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
NIPPON SEIKO KABUSHIKI KAISHA																
Patents By Year of Grant:	1	1	0	2	1	0	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	5
NIPPON THOMPSON CO., LTD.																
Patents By Year of Grant:	0	0	0	0	0	1	3	1	0	0	0	0	0	0	0	5
Patents By Year of Application:	0	0	0	0	1	3	1	0	0	0	0	0	0	0	0	5
NISSAN CHEMICAL INDUSTRIES, LTD.	-	_	_	-	-	_	_	_	-	-	_	-	-	-	_	-
Patents By Year of Grant:	0	1	0	0	2	1	0	0	0	0	0	0	0	0	1	5
Patents By Year of Application:	1	0	0	3	U	0	0	U	0	U	U	0	1	0	0	5

Organizational Patenting				(Grante	d: Jan 0	1, 1977	- Dec 31	, 2003)	R	anked Li	st of Or	ganizati	ons with	5 or	More Pat	ents
	Pre															
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
NORTH AMERICAN PHILIPS CORPORATION																
Patents By Year of Grant:	2	0	1	0	1	0	0	0	0	0	0	0	0	1	0	5
Patents By Year of Application:	3	1	0	0	0	0	0	1	0	0	0	0	0	0	0	5
NORTHERN TELECOM LIMITED																
Patents By Year of Grant:	3	0	0	0	1	0	0	0	0	0	0	1	0	0	0	5
Patents By Year of Application:	3	0	1	0	0	0	0	0	1	0	0	0	0	0	0	5
PPG INDUSTRIES INC.																
Patents By Year of Grant:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
ROCKY RESEARCH																
Patents By Year of Grant:	0	0	0	0	1	1	0	0	0	0	2	1	0	0	0	5
Patents By Year of Application:	0	0	2	0	0	0	0	1	1	1	0	0	0	0	0	5
ROLLS-ROYCE PLC																
Patents By Year of Grant:	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	5
Patents By Year of Application:	2	1	0	1	0	0	1	0	0	0	0	0	0	0	0	5
SAINT-GOBAIN VITRAGE																
Patents By Year of Grant:	0	0	0	0	0	3	0	0	0	0	0	0	1	0	1	5
Patents By Year of Application:	0	1	1	1	0	0	0	1	0	0	1	0	0	0	0	5
SANDEN CORPORATION																
Patents By Year of Grant:	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	5
Patents By Year of Application:	2	1	0	0	0	0	1	1	0	0	0	0	0	0	0	5
SANDVIK AKTIEBOLAG																
Patents By Year of Grant:	2	0	0	0	0	0	1	0	0	0	1	0	0	1	0	5
Patents By Year of Application:	2	0	0	0	0	1	0	0	2	0	0	0	0	0	0	5
SANTA FE INTERNATIONAL CORPORATION																
Patents By Year of Grant:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
SCM CORPORATION																
Patents By Year of Grant:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
SEGA ENTERPRISES, LTD.																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	3	1	1	0	0	0	5
Patents By Year of Application:	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	5

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															-	
Organizational Patenting				(Grante	d: Jan ()1, 1977	- Dec 31,	, 2003)	R	anked Li	st of Or	ganizati	ons with.	5 or 1	More Pat	ents
	Pre															
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
STERLING DRUG INC.																
Patents By Year of Grant:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
SUMITOMO CHEMICAL COMPANY, LIMITED																
Patents By Year of Grant:	2	0	0	2	0	0	0	0	0	1	0	0	0	0	0	5
Patents By Year of Application:	2	0	2	0	0	1	0	0	0	0	0	0	0	0	0	5
SUNDSTRAND CORPORATION																
Patents By Year of Grant:	3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5
Patents By Year of Grant:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
TORAY INDUSTRIES INC.	5	Ū	0	U	0	Ū	0	0	0	Ū	0	Ū	Ū	Ū	Ū	5
	3	0	1	0	0	0	0	0	0	0	1	0	0	0	0	-
Patents By Year of Grant: Patents By Year of Application:	4	0	1	0	0	0	0	1	0	0	0	0	0	0	0	5
	4	0	0	0	0	U	0	T	0	U	U	U	U	0	0	5
TORO COMPANY Patents By Year of Grant:	2	0	1	0	0	0	1	0	0	0	0	1	0	0	0	5
-	2	0	0	0	1	0	0	0	0	1	0	0	0	0	0	5
Patents By Year of Application:	3	0	U	U	I	0	U	U	U	T	U	U	0	U	U	5
TORRINGTON COMPANY								•								_
Patents By Year of Grant:	0	0	0	2	1	2	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	5
UNIROYAL, INC.																
Patents By Year of Grant:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
UNIVERSITY OF MINNESOTA, THE REGENTS O	F															
Patents By Year of Grant:	4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
WACOM CO., LTD.					_											_
Patents By Year of Grant:	0	0	1	2	1	0	0	1	0	0	0	0	0	0	0	5
Patents By Year of Application:	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	5
WISCONSIN ALUMNI RESEARCH FOUNDATION																
Patents By Year of Grant:	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5
Patents By Year of Application:	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5

Organizational Patenting				(Grante	d: Jan 0	1, 1977	- Dec 31,	, 2003)	R	anked Li:	st of Or	ganizati	ons with	5 or 1	More Pat	ents
	Pre															
		1000	1001	1000	1000	1 00 4	1005	1000	1005	1000	1000		0001			
	1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
ZENITH ELECTRONICS CORPORATION																
Patents By Year of Grant:	0	3	1	0	0	0	0	0	0	0	0	1	0	0	0	5
Patents By Year of Application:	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	5
Other Organizations (3665)																
Patents By Year of Grant:	1950	181	126	197	166	161	155	146	161	174	238	283	281	254	246	4719
Patents By Year of Application:	2306	177	190	178	182	222	223	217	242	238	223	206	85	30	0	4719