PATENTING BY ORGANIZATIONS

1996



March 1997 U.S. PATENT AND TRADEMARK OFFICE OFFICE OF ELECTRONIC INFORMATION PRODUCTS / TAF PROGRAM PK3 - Suite 441, WASHINGTON, DC 20231 tel (703) 306-2600 / FAX (703) 306-2737

A TECHNOLOGY ASSESSMENT AND FORECAST REPORT

Patenting By Organizations 1996

This report, prepared from the Technology Assessment and Forecast (TAF) data base, profiles utility patents (i.e., patents for inventions) granted during **calendar year 1996**.

Part A1

Part A1 presents patent counts by origin, U.S. and foreign. Individual counts are also presented for each of the top 36 patenting countries. Patent origin is determined by the residence of the first-named inventor listed on a patent.

Patent ownership-category information reflects ownership at the time of patent grant and does not reflect subsequent changes in ownership. If more than one assignee (the entity, if any, to which the patent rights have been legally assigned) was declared at the time of grant, a patent is attributed to the ownership-category of the first-named assignee. The "U.S. Corporations" 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 these categories. While the "U.S. Government" ownership category includes only patents granted to the Federal Government, no such distinction is made for the "Foreign Government" ownership category. The "U.S. Individuals" and "Foreign Individuals" ownership categories include patents for which ownership was assigned to an individual as well as patents for which no assignment of ownership was made at the time of grant.

<u> Part B1</u>

Part B1 presents organizations which received 30 or more patents during the calendar year. Organizations are ranked based on their patent count.

Patent information included in **Part B1** of the report reflects patent ownership at the time of patent grant and does not reflect changes in ownership which may occur after the patent grant. Where more than one assignee exists, patents are attributed to the first-named assignee.

No attempt has been made to combine data based on subsidiary relationships. However, where possible, spelling variations and variations based on name changes (e.g., ESSO to EXXON) have been merged into a single name. While every effort is made to accurately identify all organizational entities and report data by a single organizational name, achievement of a totally clean record is not expected, particularly in view of the many variations which may occur in corporate identifications.

Patenting By The U.S. Government 1996

In calendar year 1996, the U.S. Government received 923 utility patents.

Under the section labeled "Ownership", **Part A1** presents the total count of patents received by the U.S. Government during the calendar year. Each of the separate U.S. Government agencies receiving 30 or more patents during the calendar year is listed in **Part B1**.

Part A1

(Patent Grants as Distributed By Date of Patent Grant)

Page Al- 1

 Patents	Granted	Bv	Date	Of	Patent	Grant	(Granted: Jan 0	11.	1996 -	Dec 31.	1996)	
Laccuco	orancea		Ducc	01	Laccinc	Orunc	(Oranicca, oan o	· - /	100	DCC JI,	±>>0,	

	1996	Total	
Total	109646	109646	
U.S. Origin	61104	61104	
Foreign Origin	48542	48542	
JAPAN	23053	23053	
GERMANY	6818	6818	
FRANCE	2788	2788	
UNITED KINGDOM	2453	2453	
CANADA	2233	2233	
TAIWAN	1897	1897	
SOUTH KOREA	1493	1493	
ITALY	1200	1200	
SWITZERLAND	1112	1112	
SWEDEN	854	854	
NETHERLANDS	797	797	
BELGIUM	488	488	
ISRAEL	484	484	
AUSTRALIA	472	472	
FINLAND	472	472	
AUSTRIA	361	361	
DENMARK	241	241	
SPAIN	157	157	
NORWAY	139	139	
RUSSIAN FEDERATION	116	116	
S. AFRICA	111	111	
HONG KONG	88	88	
SINGAPORE	88	88	
IRELAND	78	78	
BRAZIL	63	63	
NEW ZEALAND	52	52	
CHINA P.REP.	46	46	
HUNGARY	43	43	
MEXICO	39	39	
INDIA	35	35	
ARGENTINA	30	30	
VENEZUELA	25	25	
GREECE	18	18	
LUXEMBOURG	18	18	
U.S.S.R.	16	16	
POLAND	15	15	
Others (53)	177	177	
Ownership:			
U.S. Corporations	48741	48741	
U.S. Government	923	923	
U.S. Individuals	13729	13729	
Foreign Corporations	41476	41476	
Foreign Corporations Foreign Government	41476 259	41476 259	

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		Patents	Granted	l By	Date	Of	Patent	Grant	(Granted:	Jan 01,	1996	- Dec 31,	, 1996)			
									PERCENT OF	PATENTS	3			 	 	
	1996	Total														
Total	100	100														
U.S. Origin	56	56														
Foreign Origin	44	44														
JAPAN	21	21														
GERMANY	6	6														
FRANCE	3															
UNITED KINGDOM	2	2														
CANADA	2	2														
TAIWAN	2	2														
SOUTH KOREA	1	1														
ITALY	1	1														
SWITZERLAND	1	1														
SWEDEN	1	1														
NETHERLANDS	1	1														
BELGIUM		C														
ISRAEL		C														
AUSTRALIA		C														
FINLAND		C														
		0														
AUSTRIA		0														
DENMARK																
SPAIN		0														
NORWAY		0														
RUSSIAN FEDERATION		C														
S. AFRICA		C														
HONG KONG		C														
SINGAPORE		C														
IRELAND		C														
BRAZIL		C														
NEW ZEALAND		C														
CHINA P.REP.		C														
HUNGARY		C														
MEXICO		C														
INDIA		C														
ARGENTINA		C														
VENEZUELA		C														
GREECE		C														
LUXEMBOURG		C														
U.S.S.R.		C														
POLAND		C														
Others (53)		C														
Ormorahin																
Ownership: U.S. Corporations	44	44														
U.S. Government	1	1														
U.S. Individuals	13	13														
Foreign Corporations	38	38														
Foreign Government		C														
Foreign Individuals	4	4														

Part B1

(Ranked Listing of Organizations with Patent Grants Distributed By Date of Patent Grant)

PATENTING BY ORGANIZATIONS REPORT		Technology Assessment and Forecast Report	Page B - 1
Organizational Patenting		(Granted: Jan 01, 1996 - Dec 31, 1996) Ranked List of Organizations with	-
	1996 TOTAL		
INTERNATIONAL BUSINESS MACHINES CON Patents By Year of Grant:	RPORATION 1867 1867		
CANON KABUSHIKI KAISHA Patents By Year of Grant:	1541 1541		
MOTOROLA, INC. Patents By Year of Grant:	1064 1064		
NEC CORPORATION Patents By Year of Grant:	1043 1043		
HITACHI, LTD Patents By Year of Grant:	963 963		
MITSUBISHI DENKI KABUSHIKI KAISHA Patents By Year of Grant:	934 934		
TOSHIBA CORPORATION Patents By Year of Grant:	914 914		
FUJITSU LIMITED Patents By Year of Grant:	869 869		
SONY CORPORATION Patents By Year of Grant:	855 855		
MATSUSHITA ELECTRIC INDUSTRIAL CO. Patents By Year of Grant:	LTD. 841 841		
GENERAL ELECTRIC COMPANY Patents By Year of Grant:	819 819		
EASTMAN KODAK COMPANY Patents By Year of Grant:	768 768		
XEROX CORPORATION Patents By Year of Grant:	703 703		
TEXAS INSTRUMENTS, INCORPORATED Patents By Year of Grant:	600 600		
MINNESOTA MINING AND MANUFACTURING Patents By Year of Grant:	COMPANY 537 537		
AT&T CORP. Patents By Year of Grant:	510 510		
FUJI PHOTO FILM CO., LTD Patents By Year of Grant:	510 510		
HEWLETT-PACKARD COMPANY Patents By Year of Grant:	501 501		

SAMSUNG ELECTRONICS CO., LTD.

Patents By Year of Grant:

482

482

PATENTING BY ORGANIZATIONS REPORT (C	Y 1996)		- Technology A	ssessment	and Forecast	Report	t			Page B - 2
Organizational Patenting			(Granted: Jan (1, 1996 -	Dec 31, 1996)	F	Ranked List c	f Organizations with	30 or More	Patents
	1996	TOTAL								
U.S. PHILIPS CORPORATION Patents By Year of Grant:	477	477								
INTEL CORPORATION Patents By Year of Grant:	423	423								
NIKON CORPORATION Patents By Year of Grant:	423	423								
SIEMENS AKTIENGESELLSCHAFT Patents By Year of Grant:	418	418								
E. I. DU PONT DE NEMOURS AND COMPANY Patents By Year of Grant:	395	395								
FORD MOTOR COMPANY Patents By Year of Grant:	381	381								
SHARP KABUSHKI KAISHA Patents By Year of Grant:	352	352								
HOECHST AKTIENGESELLSCHAFT Patents By Year of Grant:	351	351								
PROCTER + GAMBLE COMPANY Patents By Year of Grant:	346	346								
BAYER AKTIENGESELLSCHAFT Patents By Year of Grant:	323	323								
BASF AKTIENGESELLSCHAFT Patents By Year of Grant:	317	317								
NIPPONDENSO CO., LTD. Patents By Year of Grant:	311	311								
ROBERT BOSCH GMBH Patents By Year of Grant:	306	306								
GENERAL MOTORS CORPORATION Patents By Year of Grant:	297	297								
RICOH COMPANY, LTD. Patents By Year of Grant:	295	295								
HONDA GIKEN KOGYO KABUSHIKI KAISHA (H Patents By Year of Grant:	ONDA MOTO 293	OR CO., L' 293	TD.)							
LUCENT TECHNOLOGIES INC. Patents By Year of Grant:	289	289								
UNITED STATES OF AMERICA, NAVY Patents By Year of Grant:	285	285								
HUGHES AIRCRAFT COMPANY Patents By Year of Grant:	272	272								

			Technology Asse	essment and Forecast	Report		
PATENTING BY ORGANIZATIONS REPORT (C	Y 1996)						Page B - 3
Organizational Patenting			(Granted: Jan 01,	1996 - Dec 31, 1996)	Ranked List of Org	ganizations with 30	or More Patents
	1996	TOTAL					
CIBA-GEIGY CORPORATION Patents By Year of Grant:	271	271					
UNIVERSITY OF CALIFORNIA, THE REGENTS Patents By Year of Grant:	OF 266	266					
ELI LILLY AND COMPANY Patents By Year of Grant:	245	245					
OLYMPUS OPTICAL CO., LTD. Patents By Year of Grant:	223	223					
WHITAKER CORPORATION Patents By Year of Grant:	211	211					
SUMITOMO ELECTRIC INDUSTRIES CO., LTD Patents By Year of Grant:	209	209					
CATERPILLAR INC. Patents By Year of Grant:	206	206					
NATIONAL SEMICONDUCTOR CORPORATION Patents By Year of Grant:	201	201					
DOW CHEMICAL COMPANY Patents By Year of Grant:	196	196					
ALLIED-SIGNAL INC. Patents By Year of Grant:	189	189					
ABBOTT LABORATORIES Patents By Year of Grant:	182	182					
EATON CORPORATION Patents By Year of Grant:	182	182					
ADVANCED MICRO DEVICES, INC. Patents By Year of Grant:	179	179					
SEIKO EPSON CORPORATION Patents By Year of Grant:	179	179					
FUJI XEROX CO., LTD. Patents By Year of Grant:	172	172					
YAZAKI CORP. Patents By Year of Grant:	171	171					
UNITED MICROELECTRONICS CORPORATION Patents By Year of Grant:	170	170					
APPLE COMPUTER, INC. Patents By Year of Grant:	169	169					
GOLD STAR COMPANY, LTD. Patents By Year of Grant:	169	169					

PATENTING BY ORGANIZATIONS REPORT (C	Y 1996)		Technology Assessment and Forecast Report Page B - 4	4
Organizational Patenting			(Granted: Jan 01, 1996 - Dec 31, 1996) Ranked List of Organizations with 30 or More Patents	_
	1996	TOTAL		
ASAHI KOGAKU KOGYO KABUSHIKI KAISHA Patents By Year of Grant:	168	168		
MOBIL OIL CORP. Patents By Year of Grant:	167	167		
DIGITAL EQUIPMENT CORPORATION Patents By Year of Grant:	164	164		
MINOLTA CAMERA CO., LTD. Patents By Year of Grant:	164	164		
UNITED TECHNOLOGIES CORPORATION Patents By Year of Grant:	159	159		
TOYOTA JIDOSHA K.K. Patents By Year of Grant:	158	158		
KONICA CORPORATION Patents By Year of Grant:	155	155		
CHRYSLER MOTORS CORPORATION Patents By Year of Grant:	152	152		
MURATA MANUFACTURING CO., LTD. Patents By Year of Grant:	151	151		
TELEFONAKTIEBOLAGET LM ERICSSON Patents By Year of Grant:	151	151		
YAMAHA CORPORATION Patents By Year of Grant:	149	149		
KIMBERLY-CLARK CORPORATION Patents By Year of Grant:	141	141		
UNITED STATES SURGICAL CORPORATION Patents By Year of Grant:	139	139		
SUMITOMO CHEMICAL COMPANY, LIMITED Patents By Year of Grant:	138	138		
UNITED STATES OF AMERICA, ARMY Patents By Year of Grant:	137	137		
BROTHER KOGYO KABUSHIKI KAISHA Patents By Year of Grant:	133	133		
UNISYS CORPORATION Patents By Year of Grant:	133	133		
HYUNDAI ELECTRONICS INDUSTRIES CO., L Patents By Year of Grant:	TD. 132	132		
SHIN ETSU CHEMICAL CO., LTD. Patents By Year of Grant:	132	132		

Organizational Patenting (Granted: Jan 01, 1996 - Dec 31, 1996) Ranked List of Organizations with 30 or More Patents 1996 TOTAL SUMITOMO WIRING SYSTEMS, LTD. Patents By Year of Grant: 132 132 WESTINGHOUSE ELECTRIC CORP. Patents By Year of Grant: 132 132	5
1996TOTALSUMITOMO WIRING SYSTEMS, LTD. Patents By Year of Grant:132WESTINGHOUSE ELECTRIC CORP. Patents By Year of Grant:132132132	
SUMITOMO WIRING SYSTEMS, LTD. Patents By Year of Grant: 132 132 WESTINGHOUSE ELECTRIC CORP. Patents By Year of Grant: 132 132	
Patents By Year of Grant:132132WESTINGHOUSE ELECTRIC CORP. Patents By Year of Grant:132132	
Patents By Year of Grant: 132 132	
SANYO ELECTRIC CO., LTD. Patents By Year of Grant: 130 130	
DAEWOO ELECTRONICS COMPANY, LTD. Patents By Year of Grant: 129 129	
MERCEDES-BENZ AG Patents By Year of Grant: 129 129	
LSI LOGIC CORPORATION Patents By Year of Grant: 127 127	
HONEYWELL INC. Patents By Year of Grant: 126 126	
L'OREAL S.A. Patents By Year of Grant: 126 126	
MERCK + CO., INC. Patents By Year of Grant: 126 126	
MICRON TECHNOLOGY, INC. Patents By Year of Grant: 125 125	
SHELL OIL COMPANYPatents By Year of Grant:125125	
FUJI ELECTRIC CO., LTD.Patents By Year of Grant:123123	
MASSACHUSETTS INSTITUTE OF TECHNOLOGY Patents By Year of Grant: 119 119	
MORTON INTERNATIONAL, INC. Patents By Year of Grant: 119 119	
ROCKWELL INTERNATIONAL CORPORATION Patents By Year of Grant: 119 119	
UNITED STATES OF AMERICA, HEALTH & HUMAN SERVICES	
Patents By Year of Grant: 117 117	
SGS-THOMSON MICROELECTRONICS, INC. Patents By Year of Grant: 113 113	
SUN MICROSYSTEMS, INC. Patents By Year of Grant: 113 113	
INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE, TAIWAN Patents By Year of Grant: 110 110	

PATENTING BY ORGANIZATIONS REPORT ((CY 1996)		Technology	Assessment	and Forecast	Report				Page B - 6
Organizational Patenting			(Granted: Ja	n 01, 1996 - D	Dec 31, 1996) -	Ra:	nked List of O	ganizations with	30 or More	e Patents
	1000	momat								
	1996	TOTAL								
HENKEL KOMMANDITGESELLSCHAFT AUF AKT Patents By Year of Grant:	IEN(HENKE 108	L KGAA) 108								
ZENECA LIMITED Patents By Year of Grant:	108	108								
DOW CORNING CORPORATION Patents By Year of Grant:	107	107								
AMERICAN CYANAMID COMPANY Patents By Year of Grant:	106	106								
HOFFMANN-LA ROCHE INC. Patents By Year of Grant:	106	106								
NORTHROP GRUMMAN CORPORATION Patents By Year of Grant:	106	106								
AGFA-GEVAERT N.V. Patents By Year of Grant:	104	104								
UNITED STATES OF AMERICA, NATIONAL AN Patents By Year of Grant:	ERONAUTIC	S AND SPACE 104	E ADMINISTRATI	NC						
EXXON CHEMICALS PATENTS INC. Patents By Year of Grant:	103	103								
NORTHERN TELECOM LIMITED Patents By Year of Grant:	103	103								
SGS-THOMSON MICROELECTRONICS S.R.L. Patents By Year of Grant:	103	103								
BRISTOL-MYERS SQUIBB COMPANY Patents By Year of Grant:	102	102								
NISSAN MOTOR COMPANY, LIMITED Patents By Year of Grant:	102	102								
ROHM COMPANY LIMITED Patents By Year of Grant:	102	102								
MITSUBISHI CHEMICAL CORPORATION Patents By Year of Grant:	101	101								
PIONEER ELECTRONIC CORPORATION Patents By Year of Grant:	101	101								
VLSI TECHNOLOGY, INC. Patents By Year of Grant:	100	100								
BASF CORP. Patents By Year of Grant:	99	99								
BECTON, DICKINSON AND COMPANY Patents By Year of Grant:	99	99								

PATENTING BY ORGANIZATIONS REPORT (C	Y 1996)		Technology Assessment and Forecast Report	Page B - 7
Organizational Patenting			(Granted: Jan 01, 1996 - Dec 31, 1996) Ranked List of Organizations with	30 or More Patents
	1996	TOTAL		
COMPAQ COMPUTER CORPORATION Patents By Year of Grant:	99	99		
TAKEDA CHEMICAL INDUSTRIES LTD. Patents By Year of Grant:	99	99		
UNITED STATES OF AMERICA, AIR FORCE Patents By Year of Grant:	99	99		
TRW INC. Patents By Year of Grant:	98	98		
APPLIED MATERIALS, INC. Patents By Year of Grant:	97	97		
BOEING COMPANY Patents By Year of Grant:	97	97		
MICROSOFT CORPORATION Patents By Year of Grant:	97	97		
ROHM AND HAAS COMPANY Patents By Year of Grant:	97	97		
UOP Patents By Year of Grant:	97	97		
AMERICAN HOME PRODUCTS CORPORATION Patents By Year of Grant:	96	96		
CASIO COMPUTER CO. LTD. Patents By Year of Grant:	94	94		
HALLIBURTON CO. Patents By Year of Grant:	94	94		
AISIN SEIKI KABUSHIKI KAISHA Patents By Year of Grant:	91	91		
HARRIS CORP. Patents By Year of Grant:	91	91		
PHILLIPS PETROLEUM COMPANY Patents By Year of Grant:	91	91		
SEMICONDUCTOR ENERGY LABORATORY CO., Patents By Year of Grant:	LTD. 90	90		
TOKYO ELECTRON LIMITED Patents By Year of Grant:	90	90		
BAYER CORPORATION Patents By Year of Grant:	89	89		
DELCO ELECTRONICS CORPORATION Patents By Year of Grant:	89	89		

PATENTING BY ORGANIZATIONS REPORT	(CY 1996)		Technology Assessment and Forecast Report Page B - 8
Organizational Patenting			(Granted: Jan 01, 1996 - Dec 31, 1996) Ranked List of Organizations with 30 or More Patents
	1996	TOTAL	
DELL USA, L.P. Patents By Year of Grant:	88	88	
HEIDELBERGER DRUCKMASCHINEN AG Patents By Year of Grant:	88	88	
UNIVERSITY OF TEXAS Patents By Year of Grant:	87	87	
MITA INDUSTRIAL COMPANY LTD. Patents By Year of Grant:	86	86	
ALCATEL N. V. Patents By Year of Grant:	85	85	
CORNING INCORPORATED Patents By Year of Grant:	85	85	
TRW VEHICLE SAFETY SYSTEMS, INC. Patents By Year of Grant:	85	85	
W. R. GRACE & COCONN. Patents By Year of Grant:	85	85	
SANDOZ LTD. Patents By Year of Grant:	84	84	
PFIZER INC. Patents By Year of Grant:	83	83	
HENKEL CORPORATION Patents By Year of Grant:	82	82	
MONSANTO CO. Patents By Year of Grant:	82	82	
TDK CORPORATION Patents By Year of Grant:	81	81	
MITSUI TOATSU CHEMICALS INC. Patents By Year of Grant:	79	79	
AIR PRODUCTS AND CHEMICALS, INC. Patents By Year of Grant:	78	78	
NSK LTD. Patents By Year of Grant:	78	78	
OKI ELECTRIC INDUSTRY CO., LTD. Patents By Year of Grant:	78	78	
KABUSHIKI KAISHA KOMATSU SEISAKUSHO Patents By Year of Grant:) 77	77	
MEDTRONIC INC. Patents By Year of Grant:	77	77	

PATENTING BY ORGANIZATIONS REPORT (CY	1996)		Technology Assessment and Forecast Report	Page B - 9
Organizational Patenting			(Granted: Jan 01, 1996 - Dec 31, 1996) Ranked List of Organizations with	30 or More Patents
	1996 -	FOTAL		
PHILIPS ELECTRONICS NORTH AMERICA CORP Patents By Year of Grant:	74	74		
SANSHIN KOGYO KABUSHIKI KAISHA Patents By Year of Grant:	74	74		
TAIWAN SEMICONDUCTOR MANUFACTURING CO. Patents By Year of Grant:	, LTD. 74	74		
ANALOG DEVICES, INC. Patents By Year of Grant:	73	73		
BRIDGESTONE CORPORATION Patents By Year of Grant:	73	73		
FANUC LTD. Patents By Year of Grant:	73	73		
EXXON RESEARCH + ENGINEERING CO. Patents By Year of Grant:	72	72		
HOECHST CELANESE CORPORATION Patents By Year of Grant:	72	72		
ILLINOIS TOOL WORKS INC. Patents By Year of Grant:	72	72		
NIPPON STEEL CORP. Patents By Year of Grant:	72	72		
YAMAHA HATSUDOKI KABUSHIKI KAISHA, YAM Patents By Year of Grant:	АНА МОТОН 72	R CO., LTD 72).	
BABCOCK & WILCOX COMPANY Patents By Year of Grant:	71	71		
COLGATE-PALMOLIVE COMPANY Patents By Year of Grant:	71	71		
THOMSON CONSUMER ELECTRONICS, INC. Patents By Year of Grant:	71	71		
UNITED STATES OF AMERICA, DEPARTMENT O Patents By Year of Grant:	F ENERGY 71	71		
BAXTER INTERNATIONAL INC. Patents By Year of Grant:	70	70		
FMC CORPORATION Patents By Year of Grant:	70	70		
GOODYEAR TIRE + RUBBER COMPANY Patents By Year of Grant:	70	70		
KAO CORPORATION Patents By Year of Grant:	70	70		

PATENTING BY ORGANIZATIONS REPORT	(CY 1996)		Technology Asses	sment and Forecast	Report		Page B - 10
Organizational Patenting			(Granted: Jan 01, 1	996 - Dec 31, 1996)	Ranl	ked List of Organizations with	30 or More Patents
	1996	TOTAL					
PITNEY-BOWES, INC. Patents By Year of Grant:	70	70					
BAKER HUGHES INCORPORATED Patents By Year of Grant:	69	69					
COMMISSARIAT A L'ENERGIE ATOMIQUE Patents By Year of Grant:	69	69					
INSTITUT FRANCAIS DU PETROLE Patents By Year of Grant:	69	69					
MARTIN-MARIETTA CORPORATION Patents By Year of Grant:	69	69					
AMOCO CORPORATION Patents By Year of Grant:	67	67					
EASTMAN CHEMICAL COMPANY Patents By Year of Grant:	67	67					
NGK INSULATORS LTD. Patents By Year of Grant:	67	67					
AT&T GLOBAL INFORMATION SOLUTIONS (Patents By Year of Grant:	OMPANY (FK) 66	A NCR CORPO 66	RATION)				
BRITISH TECHNOLOGY GROUP LIMITED Patents By Year of Grant:	66	66					
IMPERIAL CHEMICAL INDUSTRIES PLC Patents By Year of Grant:	66	66					
LITTON SYSTEMS INC. Patents By Year of Grant:	66	66					
SUMITOMO RUBBER INDUSTRIES, LTD. Patents By Year of Grant:	66	66					
WARNER-LAMBERT COMPANY Patents By Year of Grant:	66	66					
TEXACO INC. Patents By Year of Grant:	65	65					
ALLERGAN, INC. Patents By Year of Grant:	64	64					
CIRRUS LOGIC, INC. Patents By Year of Grant:	64	64					
DEERE + COMPANY Patents By Year of Grant:	64	64					
G. D. SEARLE & CO. Patents By Year of Grant:	64	64					

PATENTING BY ORGANIZATIONS REPORT (C	Y 1996)		Technology Assessment and Forecast Report	Page B - 11
Organizational Patenting	.1 1990,		(Granted: Jan 01, 1996 - Dec 31, 1996) Ranked List of Organizations with 30 o	
organizational fateneing				r more racents
	1996	TOTAL		
SEAGATE TECHNOLOGY Patents By Year of Grant:	64	64		
WISCONSIN ALUMNI RESEARCH FOUNDATION Patents By Year of Grant:	64	64		
ITT CORPORATION Patents By Year of Grant:	62	62		
KAWASAKI STEEL CORPORATION Patents By Year of Grant:	62	62		
MITSUBISHI JUKOGYO KABUSHIKI KAISHA Patents By Year of Grant:	61	61		
MOLEX INCORPORATED Patents By Year of Grant:	61	61		
NIPPON TELEGRAPH & TELEPHONE CORP. Patents By Year of Grant:	61	61		
NOVO NORDISK A/S Patents By Year of Grant:	61	61		
TEKTRONIX INC. Patents By Year of Grant:	61	61		
VICTOR COMPANY OF JAPAN, LIMITED Patents By Year of Grant:	61	61		
W. L. GORE ASSOCIATES, INC. Patents By Year of Grant:	61	61		
ABB MANAGEMENT AG Patents By Year of Grant:	59	59		
AKZO NOBEL NV Patents By Year of Grant:	59	59		
DAI NIPPON PRINTING CO. LTD Patents By Year of Grant:	59	59		
DANA CORPORATION Patents By Year of Grant:	59	59		
MAZDA MOTOR CORPORATION Patents By Year of Grant:	59	59		
POLAROID CORPORATION Patents By Year of Grant:	59	59		
LEVER BROS. CO., DIVISION OF CONOPCO, Patents By Year of Grant:	INC. 58	58		
SGS-THOMSON MICROELECTRONICS S.A. Patents By Year of Grant:	58	58		

PATENTING BY ORGANIZATIONS REPORT (C	Z 1996)		Technolog	Assessme	nt and Forecas	t Repo	rt	Page B - 12	2
Organizational Patenting			(Granted: J	an 01, 1996	- Dec 31, 1996)		Ranked List of Organizations with	30 or More Patents	
	1996 '	FOTAL							
ARCO CHEMICAL TECHNOLOGY, L.P. Patents By Year of Grant:	56	56							
OLIN CORPORATION Patents By Year of Grant:	56	56							
SCHLUMBERGER TECHNOLOGY CORPORATION Patents By Year of Grant:	56	56							
UNISIA JECS CORPORATION Patents By Year of Grant:	56	56							
XILINX, INC. Patents By Year of Grant:	56	56							
AGENCY OF INDUSTRIAL SCIENCE & TECHNOL Patents By Year of Grant:	LOGY 55	55							
FICHTEL + SACHS AG Patents By Year of Grant:	55	55							
STANFORD UNIVERSITY, LELAND JUNIOR, TH Patents By Year of Grant:	HE BOARD (55	OF TRUSTEE 55	S OF						
MANNESMANN AG Patents By Year of Grant:	54	54							
MERCK PATENT GESELLSCHAFT MIT BESCHRAM Patents By Year of Grant:	NKTER HAF 54	TUNG 54							
OTIS ELEVATOR COMPANY Patents By Year of Grant:	54	54							
SOCIETE NATIONALE INDUSTRIELLE AEROSPA Patents By Year of Grant:	ATIALE 54	54							
ALUMINUM COMPANY OF AMERICA Patents By Year of Grant:	53	53							
BOEHRINGER MANNHEIM G.M.B.H. Patents By Year of Grant:	53	53							
CORNELL RESEARCH FOUNDATION INC. Patents By Year of Grant:	52	52							
HAMAMATSU PHOTONICS KABUSHIKI KAISHA Patents By Year of Grant:	52	52							
L'AIR LIQUIDE, SOCIETE ANONYME POUR L Patents By Year of Grant:	ETUDE ET 52	L'EXPLOIT 52	ATION DES PRO	OCEDES GEOR	GES CLAUDE				
PIONEER HI-BRED INTERNATIONAL, INC. Patents By Year of Grant:	52	52							
SEIKO INSTRUMENTS INC. Patents By Year of Grant:	52	52							

PATENTING BY ORGANIZATIONS REPORT (CY	1006)	Technology Assessment and Forecast Report	Page B - 13
	1990)		-
Organizational Patenting		(Granted: Jan 01, 1996 - Dec 31, 1996) Ranked List of Organizations with 30 or	More Patents
	1996	OTAL	
THOMSON-CSF Patents By Year of Grant:	52	52	
INGERSOLL-RAND COMPANY Patents By Year of Grant:	51	51	
PPG INDUSTRIES INC. Patents By Year of Grant:	51	51	
TOYODA JIDOSHOKKI SEISAKUSHO KABUSHIKI Patents By Year of Grant:	KAISHA 51	51	
BELL COMMUNICATIONS RESEARCH, INC. Patents By Year of Grant:	50	50	
BETZ LABORATORIES INC. Patents By Year of Grant:	50	50	
CARRIER CORPORATION Patents By Year of Grant:	50	50	
DEGUSSA AKTIENGESELLSCHAFT Patents By Year of Grant:	50	50	
HOECHST-ROUSSEL PHARMACEUTICALS, INC. Patents By Year of Grant:	50	50	
HYUNDAI MOTOR CO., LTD. Patents By Year of Grant:	50	50	
LUCAS INDUSTRIES PUBLIC LTD. COMPANY Patents By Year of Grant:	50	50	
NESTEC, S.A. Patents By Year of Grant:	50	50	
SOCIETE NATIONALE D'ETUDE ET DE CONSTRU Patents By Year of Grant:	UCTION DI 50	MOTEURS D'AVIATION "S.N.E.C.M.A." 50	
TETRA LAVAL HOLDINGS & FINANCE S.A. Patents By Year of Grant:	50	50	
WESTINGHOUSE AIR BRAKE COMPANY Patents By Year of Grant:	50	50	
BRITISH TELECOMMUNICATION, PLC Patents By Year of Grant:	49	49	
QUANTUM CORP. (LA) Patents By Year of Grant:	49	49	
MERRELL PHARMACEUTICALS INC. Patents By Year of Grant:	48	48	
QUALCOMM, INC. Patents By Year of Grant:	48	48	

PATENTING BY ORGANIZATIONS REPORT (CY	(1996)		Technology Assessment and Forecast Report	Page B - 14
Organizational Patenting	,		(Granted: Jan 01, 1996 - Dec 31, 1996) Ranked List of Organizations with 3	-
	1996	TOTAL		
WESTERN ATLAS INTERNATIONAL, INC. Patents By Year of Grant:	48	48		
ASAHI GLASS COMPANY, LTD. Patents By Year of Grant:	47	47		
EMERSON ELECTRIC CO. Patents By Year of Grant:	47	47		
FRANCE TELECOM Patents By Year of Grant:	47	47		
M.A.N. ROLAND DRUCKMASCHINEN AG Patents By Year of Grant:	47	47		
MARTIN MARIETTA ENERGY SYSTEMS, INC. Patents By Year of Grant:	47	47		
SCI-MED LIFE SYSTEMS, INC. Patents By Year of Grant:	47	47		
KOBE STEEL LTD. Patents By Year of Grant:	46	46		
BOC GROUP, INC. Patents By Year of Grant:	45	45		
NIPPON PAINT CO., LTD. Patents By Year of Grant:	45	45		
SUNDSTRAND CORPORATION Patents By Year of Grant:	45	45		
SYMBOL TECHNOLOGIES Patents By Year of Grant:	45	45		
UNIVERSITY OF PENNSYLVANIA Patents By Year of Grant:	45	45		
ETHICON, INC. Patents By Year of Grant:	44	44		
FUJI PHOTO OPTICAL CO. LTD. Patents By Year of Grant:	44	44		
FURUKAWA ELECTRIC CO., LTD. Patents By Year of Grant:	44	44		
GAS RESEARCH INSTITUTE Patents By Year of Grant:	44	44		
GENENTECH, INC. Patents By Year of Grant:	44	44		
HITACHI METALS LTD. Patents By Year of Grant:	44	44		

PATENTING BY ORGANIZATIONS REPORT (CY	1996)	Technology Assess	ment and Forecast Repo	rt	Page B - 15
Organizational Patenting		(Granted: Jan 01, 19	996 - Dec 31, 1996)	Ranked List of Organizations with	30 or More Patents
	1996	ΔL			
KOITO MANUFACTURING COMPANY LIMITED Patents By Year of Grant:	44	14			
KUREHA CHEMICAL INDUSTRY CO., LTD. Patents By Year of Grant:	44	14			
MITSUBISHI JIDOSHA KOGYO KABUSHIKI KAI Patents By Year of Grant:	SHA 44	14			
MCDONNELL DOUGLAS CORP. Patents By Year of Grant:	43	13			
NATIONAL SCIENCE COUNCIL Patents By Year of Grant:	43	13			
RHONE-POULENC CHIMIE DE BASE Patents By Year of Grant:	43	13			
TALIGENT, INC. Patents By Year of Grant:	43	13			
AJINOMOTO COMPANY INCORPORATED Patents By Year of Grant:	42	12			
ALCON LABORATORIES, INC. Patents By Year of Grant:	42	12			
ALLEN-BRADLEY COMPANY Patents By Year of Grant:	42	12			
J. M. VOITH GMBH Patents By Year of Grant:	42	12			
MATSUSHITA ELECTRIC WORKS, LTD. Patents By Year of Grant:	42	12			
MITSUBISHI MATERIALS CORPORATION Patents By Year of Grant:	42	12			
NATIONAL STARCH AND CHEMICAL INVESTMEN Patents By Year of Grant:	T HOLDING 42	DRPORATION 12			
OSRAM SYLVANIA INC. Patents By Year of Grant:	42	12			
PACESETTER, INC. Patents By Year of Grant:	42	12			
RISO KAGAKU CORPORATION Patents By Year of Grant:	42	12			
RIVERWOOD INTERNATIONAL CORPORATION Patents By Year of Grant:	42	12			
SANDVIK AKTIEBOLAG Patents By Year of Grant:	42	12			

			Technology Assessment and Forecast Report	
PATENTING BY ORGANIZATIONS REPORT (CY 1	1996)			Page B - 16
Organizational Patenting			(Granted: Jan 01, 1996 - Dec 31, 1996) Ranked List of Organizations wi	th 30 or More Patents
:	1996 ТО	TAL		
GENERAL HOSPITAL CORPORATION Patents By Year of Grant:	41	41		
HERCULES INCORPORATED Patents By Year of Grant:	41	41		
HUGHES ELECTRONIC DEVICES CORPORATION Patents By Year of Grant:	41	41		
MITSUI PETROCHEMICAL INDUSTRIES LTD. Patents By Year of Grant:	41	41		
MOORE BUSINESS FORMS INC. Patents By Year of Grant:	41	41		
NKK CORPORATION Patents By Year of Grant:	41	41		
OMRON CORPORATION Patents By Year of Grant:	41	41		
PORSCHE AG Patents By Year of Grant:	41	41		
UNITED STATES OF AMERICA, DEPARTMENT OF Patents By Year of Grant:	AGRICULT 41	URE 41		
WHIRLPOOL CORPORATION Patents By Year of Grant:	41	41		
AVERY DENNISON CORPORATION Patents By Year of Grant:	40	40		
CHESEBROUGH-POND'S USA CO., DIVISION OF Patents By Year of Grant:	CONOPCO, 40	INC. 40		
DAIWA SEIKO INC Patents By Year of Grant:	40	40		
GOLD STAR ELECTRON CO., LTD. Patents By Year of Grant:	40	40		
MITSUBISHI GAS-CHEMICAL COMPANY, INC. Patents By Year of Grant:	40	40		
NOKIA TELECOMMUNICATIONS OY Patents By Year of Grant:	40	40		
SIEMENS MEDICAL SYSTEMS, INC. Patents By Year of Grant:	40	40		
STERLING WINTHROP INC. Patents By Year of Grant:	40	40		
ALPS ELECTRIC CO., LTD. Patents By Year of Grant:	39	39		

PATENTING BY ORGANIZATIONS REPORT (CY	1996)		Technol	ogy Ass	sessment	t and Fo	recast R	eport				Page B	- 17
Organizational Patenting			(Granted:	Jan 01,	, 1996 -	- Dec 31,	1996)	Ranked I	List of Orga	nizations with	30 or Mo	re Patents	
	1996	TOTAL											
ALTERA CORPORATION Patents By Year of Grant:	39	39											
DOW CORNING TORAY SILICONE COMPANY LIMI Patents By Year of Grant:	TED 39	39											
NCR CORPORATION Patents By Year of Grant:	39	39											
STORAGE TECHNOLOGY CORPORATION Patents By Year of Grant:	39	39											
TOYODA GOSEI KABUSHIKI KAISHA Patents By Year of Grant:	39	39											
UNION CARBIDE CHEMICALS & PLASTICS TECH Patents By Year of Grant:	NOLOGY 39	CORPORATION 39	1										
ZEXEL CORPORATION Patents By Year of Grant:	39	39											
ELF ATOCHEM S.A. Patents By Year of Grant:	38	38											
IOWA STATE UNIVERSITY RESEARCH FOUNDATI Patents By Year of Grant:	ON INC. 38	38											
KELSEY-HAYES CO. Patents By Year of Grant:	38	38											
TEIJIN LIMITED Patents By Year of Grant:	38	38											
ATLANTIC RICHFIELD COMPANY Patents By Year of Grant:	37	37											
BELOIT TECHNOLOGIES, INC. Patents By Year of Grant:	37	37											
CARL FREUDENBERG Patents By Year of Grant:	37	37											
COOPER INDUSTRIES INC. Patents By Year of Grant:	37	37											
DUKE UNIVERSITY INC. Patents By Year of Grant:	37	37											
INTERNATIONAL PAPER CO. Patents By Year of Grant:	37	37											
RESEARCH FOUNDATION OF STATE UNIVERSITY Patents By Year of Grant:	OF NEW 37	YORK 37											
TERUMO KABUSHIKI KAISHA (TERUMO CORPORA Patents By Year of Grant:		37											

PATENTING BY ORGANIZATIONS REPORT (CY	1996)		Technology	Assessment and	d Forecast Re	port			Pa	ge B - 18
Organizational Patenting	19907		(Granted: Ja	0.01 1996 - Dec	31 1996)	- Panko	d List of Organiza	tions with 30		-
organizacionar raceneing			(drancea, bai	1 01, 1990 Dee	51, 1990,	name	a hist of organiza	CIOND WICH 50	or nore rae	
	1996 '	TOTAL								
TORAY INDUSTRIES INC. Patents By Year of Grant:	37	37								
BLACK & DECKER INC. Patents By Year of Grant:	36	36								
CHURCH + DWIGHT CO., INC. Patents By Year of Grant:	36	36								
DAICEL CHEMICAL INDUSTRIES LTD. Patents By Year of Grant:	36	36								
HUELS AKTIENGESELLSCHAFT Patents By Year of Grant:	36	36								
ITT AUTOMOTIVE EUROPE GMBH Patents By Year of Grant:	36	36								
PRAXAIR TECHNOLOGY, INC. Patents By Year of Grant:	36	36								
SHIN-ETSU HANDOTAI CO., LTD. Patents By Year of Grant:	36	36								
VALMET CORP. Patents By Year of Grant:	36	36								
FRAUNHOFER-GESELLSCHAFT ZUR FORDERUNG E Patents By Year of Grant:	DER ANGE 35	WANTEN FOR 35	SCHUNG E.V.							
JOHNSON & JOHNSON CLINICAL DIAGNOSTICS,										
Patents By Year of Grant:	35	35								
LUBRIZOL CORPORATION Patents By Year of Grant:	35	35								
NEW HOLLAND NORTH AMERICA, INC. Patents By Year of Grant:	35	35								
NIPPON OIL COMPANY LTD. Patents By Year of Grant:	35	35								
NOKIA MOBILE PHONES LTD. Patents By Year of Grant:	35	35								
OWENS-CORNING FIBERGLAS TECHNOLOGY, INC Patents By Year of Grant:	35	35								
ROLLS-ROYCE PLC Patents By Year of Grant:	35	35								
SQUARE D COMPANY Patents By Year of Grant:	35	35								
CORDIS CORPORATION Patents By Year of Grant:	34	34								

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PATENTING BY ORGANIZATIONS REPORT (CY	1990)			Page B - 19
Organizational Patenting			(Granted: Jan 01, 1996 - Dec 31, 1996) Ranked List of Organizations with 30	or More Patents
	1996	TOTAL		
DAVIDSON TEXTRON INC. Patents By Year of Grant:	34	34		
EMHART INC. Patents By Year of Grant:	34	34		
FUJI JUKOGYO KABUSHIKI KAISHA Patents By Year of Grant:	34	34		
NORAND CORPORATION Patents By Year of Grant:	34	34		
ROUSSEL-UCLAF Patents By Year of Grant:	34	34		
SAINT GOBAIN/NORTON INDUSTRIAL CERAMICS Patents By Year of Grant:	CORP. 34	34		
SILICON GRAPHICS, INC. Patents By Year of Grant:	34	34		
SMITH & NEPHEW RICHARDS INC. Patents By Year of Grant:	34	34		
TRIMBLE NAVIGATION, LTD. Patents By Year of Grant:	34	34		
ADIR ET COMPAGNIE Patents By Year of Grant:	33	33		
B. F. GOODRICH CO. Patents By Year of Grant:	33	33		
COLUMBIA UNIVERSITY Patents By Year of Grant:	33	33		
MORTON THIOKOL, INC. Patents By Year of Grant:	33	33		
NORDSON CORPORATION Patents By Year of Grant:	33	33		
PALL CORPORATION Patents By Year of Grant:	33	33		
UPJOHN COMPANY Patents By Year of Grant:	33	33		
HARVARD COLLEGE, PRESIDENT AND FELLOWS Patents By Year of Grant:	32	32		
KYOWA HAKKO KOGYO CO., LTD Patents By Year of Grant:	32	32		
LG SEMICON CO., LTD. Patents By Year of Grant:	32	32		

PATENTING BY ORGANIZATIONS REPORT (CY	1996)		Technology Assessment and Forecast Report	Page B - 20
Organizational Patenting	19907		(Granted: Jan 01, 1996 - Dec 31, 1996) Ranked List of Organizations with 30	5
	1996 :	FOTAL		
MICHIGAN STATE UNIVERSITY Patents By Year of Grant:	32	32		
NGK SPARK PLUG CO., LTD. Patents By Year of Grant:	32	32		
RAYCHEM CORPORATION Patents By Year of Grant:	32	32		
SAMSUNG DISPLAY DEVICES CO., LTD. Patents By Year of Grant:	32	32		
ZENITH ELECTRONICS CORPORATION Patents By Year of Grant:	32	32		
DAIKIN INDUSTRIES LIMITED Patents By Year of Grant:	31	31		
ELECTRONICS AND TELECOMMUNICATION RESEA Patents By Year of Grant:	RCH INS 31	TITUTE 31		
ERICSSON GE MOBILE COMMUNICATIONS HOLDI Patents By Year of Grant:	NG INC. 31	31		
FUJISAWA PHARMACEUTICAL CO., LTD. Patents By Year of Grant:	31	31		
IDEMITSU KOSAN COMPANY LIMITED Patents By Year of Grant:	31	31		
PRINCE CORPORATION Patents By Year of Grant:	31	31		
SCHERING AKTIENGESELLSCHAFT Patents By Year of Grant:	31	31		
SHIMADZU CORPORATION Patents By Year of Grant:	31	31		
SOUTHPAC TRUST INTERNATIONAL, INC. Patents By Year of Grant:	31	31		
TORRINGTON COMPANY Patents By Year of Grant:	31	31		
UNIVERSITY OF MINNESOTA, THE REGENTS OF Patents By Year of Grant:	31	31		
ADVANCED CARDIOVASCULAR SYSTEMS, INC. Patents By Year of Grant:	30	30		
BEHRINGWERKE AKTIENGESELLSCHAFT Patents By Year of Grant:	30	30		
EISAI CO., LTD. Patents By Year of Grant:	30	30		

PATENTING BY ORGANIZATIONS REPORT	(CY 1996)		Technology Assessment and Forecast Report Page B - 21
	(01 1))0)		-
Organizational Patenting			(Granted: Jan 01, 1996 - Dec 31, 1996) Ranked List of Organizations with 30 or More Patents
	1996	TOTAL	
JANSSEN PHARMACEUTICA N.V. Patents By Year of Grant:	30	30	
KRAFT FOODS, INC. Patents By Year of Grant:	30	30	
NALCO CHEMICAL COMPANY Patents By Year of Grant:	30	30	
PANASONIC TECHNOLOGIES, INC. Patents By Year of Grant:	30	30	
SECRETARY OF STATE FOR DEFENCE IN H Patents By Year of Grant:	ER BRITAN 30	NIC MAJESTY' 30	'S GOVERNMENT OF THE UNITED KINGDOM AND NORTHERN IRELAND
ZIMMER, INC. Patents By Year of Grant:	30	30	
Other Organizations (18769) Patents By Year of Grant:	43250	43250	