

Appendix table 5-48

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Citation of S&E articles, by region and country/economy: 1992, 1996, and 2001

Region and country/economy	1992		1996		2001	
	Number	Percent worldwide	Number	Percent worldwide	Number	Percent worldwide
Worldwide	2,684,777	100.00	3,325,455	100.00	3,846,519	100.00
North America	1,503,880	56.02	1,770,128	53.23	1,830,781	47.60
Canada	111,661	4.16	141,278	4.25	144,247	3.75
Mexico	2,906	0.11	4,243	0.13	8,241	0.21
United States	1,389,314	51.75	1,624,607	48.85	1,678,293	43.63
Western Europe	812,461	30.26	1,082,741	32.56	1,363,912	35.46
Austria	11,023	0.41	16,437	0.49	23,775	0.62
Belgium	20,776	0.77	28,118	0.85	34,731	0.90
Croatia	0	0.00	871	0.03	1,510	0.04
Cyprus	24	0.00	60	0.00	196	0.01
Denmark	20,271	0.76	26,288	0.79	32,558	0.85
Finland	14,704	0.55	21,493	0.65	30,461	0.79
France	116,453	4.34	153,159	4.61	187,325	4.87
Germany	157,285	5.86	207,673	6.24	274,520	7.14
Greece	3,359	0.13	5,132	0.15	8,971	0.23
Iceland	314	0.01	578	0.02	868	0.02
Ireland	3,440	0.13	4,639	0.14	8,148	0.21
Italy	54,805	2.04	83,353	2.51	115,461	3.00
Macedonia	0	0.00	22	0.00	135	0.00
Netherlands	57,498	2.14	76,260	2.29	91,238	2.37
Norway	10,221	0.38	13,079	0.39	16,212	0.42
Portugal	1,460	0.05	2,793	0.08	5,807	0.15
Slovenia	0	0.00	871	0.03	2,317	0.06
Spain	22,199	0.83	42,731	1.28	68,894	1.79
Sweden	48,980	1.82	57,349	1.72	66,394	1.73
Switzerland	43,605	1.62	58,346	1.75	69,675	1.81
Turkey	1,134	0.04	2,519	0.08	6,565	0.17
United Kingdom	221,955	8.27	278,930	8.39	316,752	8.23
Yugoslavia	2,865	0.11	1,822	0.05	771	0.02
All others	89	0.00	218	0.01	630	0.02
Asia	209,591	7.81	279,456	8.40	392,036	10.19
Bangladesh	208	0.01	331	0.01	317	0.01
China	9,910	0.37	16,539	0.50	33,245	0.86
India	14,421	0.54	19,250	0.58	24,442	0.64
Indonesia	164	0.01	293	0.01	485	0.01
Japan	174,471	6.50	219,688	6.61	280,360	7.29
Malaysia	386	0.01	499	0.02	986	0.03
Pakistan	362	0.01	421	0.01	456	0.01
Philippines	341	0.01	467	0.01	642	0.02
Singapore	1,179	0.04	2,787	0.08	5,650	0.15
South Korea	2,260	0.08	6,563	0.20	23,551	0.61
Sri Lanka	184	0.01	147	0.00	201	0.01
Taiwan	4,763	0.18	11,150	0.34	19,422	0.50
Thailand	787	0.03	1,042	0.03	1,716	0.04
Vietnam	57	0.00	164	0.00	307	0.01
All others	99	0.00	117	0.00	256	0.01
Eastern Europe/Central Asia	52,023	1.94	60,215	1.81	76,898	2.00
Armenia	0	0.00	118	0.00	243	0.01
Azerbaijan	0	0.00	59	0.00	51	0.00
Bulgaria	1,522	0.06	2,110	0.06	2,193	0.06
Belarus	0	0.00	500	0.02	1,060	0.03
Czechoslovakia	5,468	0.20	6,540	0.20	7,591	0.20
Estonia	0	0.00	376	0.01	1,204	0.03
Georgia	0	0.00	88	0.00	264	0.01
Hungary	4,755	0.18	5,988	0.18	8,345	0.22
Kazakhstan	0	0.00	77	0.00	120	0.00
Latvia	0	0.00	224	0.01	443	0.01
Lithuania	0	0.00	270	0.01	710	0.02
Moldova	0	0.00	105	0.00	141	0.00
Poland	8,671	0.32	10,692	0.32	14,909	0.39
Romania	571	0.02	1,109	0.03	1,751	0.05

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	Number	Percent worldwide	Number	Percent worldwide	Number	Percent worldwide
Russia	0	0.00	19,047	0.57	31,602	0.82
Slovakia	0	0.00	777	0.02	2,411	0.06
USSR	31,036	1.16	9,852	0.30	0	0.00
Ukraine	0	0.00	2,078	0.06	3,606	0.09
Uzbekistan	0	0.00	173	0.01	219	0.01
All others	0	0.00	32	0.00	35	0.00
Near East/North Africa	25,502	0.95	31,975	0.96	43,463	1.13
Algeria	127	0.00	194	0.01	282	0.01
Egypt	1,455	0.05	1,643	0.05	2,391	0.06
Iran	143	0.01	347	0.01	1,756	0.05
Israel	21,192	0.79	27,261	0.82	34,625	0.90
Jordan	218	0.01	165	0.00	382	0.01
Kuwait	460	0.02	154	0.00	571	0.01
Lebanon	62	0.00	79	0.00	273	0.01
Morocco	180	0.01	295	0.01	740	0.02
Oman	48	0.00	52	0.00	121	0.00
Saudi Arabia	1,078	0.04	1,104	0.03	1,291	0.03
Tunisia	170	0.01	199	0.01	438	0.01
United Arab Emirates	33	0.00	141	0.00	261	0.01
All others	336	0.01	341	0.01	332	0.01
Pacific	58,661	2.18	70,735	2.13	92,447	2.40
Australia	49,989	1.86	60,266	1.81	78,789	2.05
New Zealand	8,498	0.32	10,326	0.31	13,507	0.35
All others	174	0.01	143	0.00	151	0.00
Central/South America	12,657	0.47	19,714	0.59	34,879	0.91
Argentina	3,386	0.13	4,856	0.15	8,631	0.22
Brazil	5,132	0.19	8,630	0.26	17,365	0.45
Chile	1,826	0.07	2,560	0.08	3,559	0.09
Colombia	256	0.01	335	0.01	654	0.02
Costa Rica	174	0.01	197	0.01	362	0.01
Cuba	136	0.01	262	0.01	665	0.02
Peru	223	0.01	218	0.01	278	0.01
Uruguay	104	0.00	464	0.01	685	0.02
Venezuela	789	0.03	1,296	0.04	1,491	0.04
All others	630	0.02	896	0.03	1,189	0.03
Sub-Saharan Africa	10,001	0.37	10,491	0.32	12,104	0.31
Cameroon	87	0.00	159	0.00	238	0.01
Ethiopia	117	0.00	173	0.01	226	0.01
Ghana	50	0.00	110	0.00	164	0.00
Kenya	791	0.03	822	0.02	983	0.03
Nigeria	744	0.03	651	0.02	519	0.01
Senegal	358	0.01	372	0.01	279	0.01
South Africa	6,348	0.24	6,397	0.19	7,056	0.18
Tanzania	123	0.00	231	0.01	324	0.01
Uganda	68	0.00	121	0.00	287	0.01
Zimbabwe	274	0.01	239	0.01	301	0.01
All others	1,042	0.04	1,216	0.04	1,727	0.04

NOTES: Citation counts are based on a 3-year window with a 2-year lag. For example, citations for 1999 are references made in articles published in 1999 to articles published in 1995–97. Country/economy is determined by the cited article's institutional address. Percents may not sum to 100 because of rounding. German data for 1992 includes former East Germany. China data includes Hong Kong. Czech Republic data for 1992 and 1996 includes the former Czechoslovakia.

SOURCES: Institute for Scientific Information, Science Citation Index and Social Sciences Citation Index; CHI Research, Inc.; and National Science Foundation, Division of Science Resources Statistics, special tabulations.