

Appendix table 5-61

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Citation of S&E articles, by region and country/economy: 1992, 1997, and 2003

Region and country/economy	1992		1997		2003	
	Number	World share (%)	Number	World share (%)	Number	World share (%)
All countries.....	2,684,777	100.00	3,430,965	100.00	4,339,511	100.00
Major S&E article producers.....	2,336,128	87.01	2,974,868	86.71	3,714,578	85.60
United States.....	1,389,314	51.75	1,648,899	48.06	1,839,481	42.39
EU-15.....	754,230	28.09	1,056,629	30.80	1,412,427	32.55
Austria.....	11,023	0.41	17,684	0.52	27,950	0.64
Belgium.....	20,776	0.77	29,387	0.86	38,971	0.90
Denmark.....	20,271	0.76	27,173	0.79	37,971	0.88
Finland.....	14,704	0.55	23,869	0.70	34,503	0.80
France.....	116,453	4.34	161,199	4.70	201,941	4.65
Germany.....	157,285	5.86	220,457	6.43	305,555	7.04
Greece.....	3,359	0.13	5,606	0.16	11,996	0.28
Ireland.....	3,440	0.13	4,987	0.15	9,473	0.22
Italy.....	54,805	2.04	89,242	2.60	130,688	3.01
Netherlands.....	57,498	2.14	80,627	2.35	99,248	2.29
Portugal.....	1,460	0.05	3,341	0.10	8,539	0.20
Spain.....	22,199	0.83	46,755	1.36	82,362	1.90
Sweden.....	48,980	1.82	59,058	1.72	71,463	1.65
United Kingdom.....	221,955	8.27	287,156	8.37	351,572	8.10
Japan.....	174,471	6.50	225,335	6.57	318,665	7.34
East Asia-4.....	18,112	0.67	44,004	1.28	144,005	3.32
China.....	9,910	0.37	19,393	0.57	65,326	1.51
Singapore.....	1,179	0.04	3,116	0.09	9,930	0.23
South Korea.....	2,260	0.08	8,769	0.26	40,726	0.94
Taiwan.....	4,763	0.18	12,727	0.37	28,023	0.65
Other regions/countries						
Other Asia						
Bangladesh.....	208	0.01	314	0.01	521	0.01
India.....	14,421	0.54	18,827	0.55	31,534	0.73
Indonesia.....	164	0.01	379	0.01	665	0.02
Malaysia.....	386	0.01	587	0.02	1,277	0.03
Pakistan.....	362	0.01	494	0.01	695	0.02
Philippines.....	341	0.01	455	0.01	682	0.02
Sri Lanka.....	184	0.01	132	0.00	304	0.01
Thailand.....	787	0.03	1,126	0.03	2,456	0.06
Vietnam.....	57	0.00	173	0.01	468	0.01
All others.....	99	0.00	113	0.00	374	0.01
Other Western Europe						
Croatia.....	0	0.00	1,308	0.04	1,783	0.04
Cyprus.....	24	0.00	83	0.00	221	0.01
Iceland.....	314	0.01	747	0.02	983	0.02
Macedonia.....	0	0.00	87	0.00	171	0.00
Norway.....	10,221	0.38	13,507	0.39	19,011	0.44
Slovenia.....	0	0.00	1,309	0.04	2,946	0.07
Switzerland.....	43,605	1.62	61,507	1.79	74,094	1.71
Turkey.....	1,134	0.04	2,854	0.08	10,130	0.23
Yugoslavia.....	2,865	0.11	987	0.03	1,210	0.03
All others.....	67	0.00	137	0.00	245	0.01
Eastern Europe/former USSR.....	52,023	1.94	62,274	1.82	86,426	1.99
Armenia.....	0	0.00	165	0.00	301	0.01
Azerbaijan.....	0	0.00	72	0.00	71	0.00
Bulgaria.....	1,522	0.06	2,029	0.06	2,360	0.05
Belarus.....	0	0.00	727	0.02	1,002	0.02
Czech Republic.....	5,468	0.20	5,993	0.17	9,604	0.22
Estonia.....	0	0.00	594	0.02	1,318	0.03
Georgia.....	0	0.00	164	0.00	329	0.01
Hungary.....	4,755	0.18	6,197	0.18	9,714	0.22
Kazakhstan.....	0	0.00	110	0.00	189	0.00
Latvia.....	0	0.00	326	0.01	434	0.01
Lithuania.....	0	0.00	458	0.01	873	0.02
Moldova.....	0	0.00	156	0.00	179	0.00
Poland.....	8,671	0.32	10,925	0.32	18,672	0.43

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Region and country/economy	1992		1997		2003	
	Number	World share (%)	Number	World share (%)	Number	World share (%)
Romania.....	571	0.02	1,013	0.03	2,063	0.05
Russia.....	0	0.00	28,562	0.83	32,176	0.74
Slovakia.....	0	0.00	1,513	0.04	2,908	0.07
USSR.....	31,036	1.16	53	0.00	0	0.00
Ukraine.....	0	0.00	2,965	0.09	3,921	0.09
Uzbekistan.....	0	0.00	213	0.01	271	0.01
All others.....	0	0.00	40	0.00	39	0.00
Near East/North Africa.....	25,478	0.95	33,994	0.99	50,629	1.17
Algeria.....	127	0.00	197	0.01	437	0.01
Egypt.....	1,455	0.05	1,800	0.05	3,319	0.08
Iran.....	143	0.01	434	0.01	3,116	0.07
Israel.....	21,192	0.79	28,707	0.84	38,447	0.89
Jordan.....	218	0.01	178	0.01	478	0.01
Kuwait.....	460	0.02	227	0.01	689	0.02
Lebanon.....	62	0.00	91	0.00	493	0.01
Morocco.....	180	0.01	362	0.01	926	0.02
Oman.....	48	0.00	64	0.00	167	0.00
Saudi Arabia.....	1,078	0.04	1,219	0.04	1,305	0.03
Tunisia.....	170	0.01	235	0.01	619	0.01
United Arab Emirates.....	33	0.00	198	0.01	330	0.01
All others.....	313	0.01	282	0.01	305	0.01
Central/South America.....	15,563	0.58	26,672	0.78	55,870	1.29
Argentina.....	3,386	0.13	5,697	0.17	10,449	0.24
Brazil.....	5,132	0.19	9,416	0.27	23,680	0.55
Chile.....	1,826	0.07	2,573	0.07	4,639	0.11
Colombia.....	256	0.01	485	0.01	948	0.02
Costa Rica.....	174	0.01	206	0.01	468	0.01
Cuba.....	136	0.01	453	0.01	883	0.02
Mexico.....	2,906	0.11	4,899	0.14	10,494	0.24
Peru.....	223	0.01	218	0.01	395	0.01
Uruguay.....	104	0.00	394	0.01	837	0.02
Venezuela.....	789	0.03	1,355	0.04	1,655	0.04
All others.....	630	0.02	977	0.03	1,421	0.03
Sub-Saharan Africa.....	10,001	0.37	10,910	0.32	13,732	0.32
Cameroon.....	87	0.00	180	0.01	256	0.01
Ethiopia.....	117	0.00	186	0.01	270	0.01
Ghana.....	50	0.00	99	0.00	272	0.01
Kenya.....	791	0.03	862	0.03	1,015	0.02
Nigeria.....	744	0.03	613	0.02	613	0.01
Senegal.....	358	0.01	385	0.01	259	0.01
South Africa.....	6,348	0.24	6,421	0.19	8,017	0.18
Tanzania.....	123	0.00	346	0.01	351	0.01
Uganda.....	68	0.00	204	0.01	386	0.01
Zimbabwe.....	274	0.01	247	0.01	286	0.01
All others.....	1,042	0.04	1,366	0.04	2,006	0.05
Other						0.00
Canada.....	111,661	4.16	141,498	4.12	161,501	3.72
Australia.....	49,989	1.86	64,657	1.88	91,420	2.11
New Zealand.....	8,498	0.32	10,738	0.31	15,342	0.35
All others.....	174	0.01	185	0.01	187	0.00

EU = European Union; USSR = Union of Soviet Socialist Republics

NOTES: Citation counts based on a 3-year period with 2-year lag, e.g., citations for 1999 are references made in articles published in 1999 to articles published in 1995–97. Citations on fractional-count basis, i.e., for cited articles with collaborating institutions from multiple countries/economies, each country/economy receives fractional credit on basis of proportion of its participating institutions. Detail may not add to total because of rounding. EU-15 consists of 15 EU countries before expansion of member countries on May 1, 2004 (listed countries plus Luxembourg). Germany data for 1992 include former East Germany. China data include Hong Kong. Czech Republic data for 1992 and 1996 include former Czechoslovakia.

SOURCES: Thomson ISI, *Science Citation Index* and *Social Sciences Citation Index*, <http://www.isinet.com/products/citation/>; iPLQ, Inc.; and National Science Foundation, Division of Science Resources Statistics, special tabulations.