

Appendix table 5-44

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U.S. international scientific collaboration with selected countries/economies: 1994 and 2001

Region and country/economy	1994				2001			
	S&E articles	Internationally coauthored articles	Share of internationally coauthored articles	U.S. share of internationally coauthored articles	S&E articles	Internationally coauthored articles	Share of internationally coauthored articles	U.S. share of internationally coauthored articles
North America								
Canada.....	28,983	8,189	28.3	52.6	28,846	11,070	38.4	53.1
Mexico.....	2,138	836	39.1	48.7	4,393	2,066	47.0	42.2
United States.....	216,862	34,226	15.8	na	228,015	52,862	23.2	na
Western Europe								
Austria.....	4,112	1,640	39.9	24.9	6,476	3,291	50.8	25.5
Belgium.....	6,620	2,889	43.6	23.8	8,818	4,724	53.6	23.0
Croatia.....	678	290	42.8	26.9	934	382	40.9	27.5
Cyprus.....	46	33	71.7	33.3	139	93	66.9	41.9
Denmark.....	5,800	2,310	39.8	29.5	7,136	3,609	50.6	29.2
Finland.....	4,851	1,571	32.4	33.7	6,747	2,892	42.9	28.6
France.....	34,284	11,135	32.5	27.1	41,397	17,918	43.3	25.6
Germany.....	44,434	13,591	30.6	30.2	57,231	23,887	41.7	29.9
Greece.....	2,505	938	37.4	30.8	4,371	1,812	41.5	27.6
Iceland.....	197	97	49.2	46.4	316	219	69.3	28.8
Ireland.....	1,481	545	36.8	24.6	2,280	1,065	46.7	18.3
Italy.....	20,574	6,734	32.7	34.1	28,384	11,269	39.7	32.2
Macedonia.....	48	28	58.3	46.4	101	46	45.5	15.2
Netherlands.....	14,579	4,659	32.0	30.0	17,134	7,692	44.9	29.9
Norway.....	3,558	1,313	36.9	29.6	4,503	2,112	46.9	26.3
Portugal.....	1,236	570	46.1	22.6	3,056	1,619	53.0	18.7
Slovenia.....	598	232	38.8	25.4	1,184	524	44.3	27.9
Spain.....	12,536	3,651	29.1	26.6	19,809	7,508	37.9	26.9
Sweden.....	11,239	4,073	36.2	29.8	14,096	6,524	46.3	27.5
Switzerland.....	10,056	4,474	44.5	31.5	12,067	6,455	53.5	31.2
Turkey.....	1,613	398	24.7	37.4	4,704	1,078	22.9	41.0
United Kingdom.....	52,714	13,253	25.1	31.3	60,438	22,328	36.9	30.6
Yugoslavia.....	624	209	33.5	25.4	705	286	40.6	22.4
Asia								
Bangladesh.....	193	101	52.3	22.8	277	176	63.5	28.4
China.....	7,846	2,181	27.8	33.7	24,638	6,703	27.2	37.4
Hong Kong.....	1,485	568	38.2	31.3	na	na	na	na
India.....	10,757	1,516	14.1	38.8	12,561	2,685	21.4	36.9
Indonesia.....	224	178	79.5	33.7	420	347	82.6	25.6
Japan.....	50,309	6,898	13.7	49.5	64,073	12,622	19.7	42.8
Malaysia.....	437	170	38.9	18.8	673	308	45.8	13.6
Pakistan.....	406	159	39.2	23.3	389	186	47.8	30.1
Philippines.....	221	137	62.0	29.2	284	205	72.2	32.7
Singapore.....	1,208	337	27.9	32.0	3,212	1,107	34.5	30.0
South Korea.....	3,496	1,005	28.7	64.9	12,801	3,296	25.7	57.2
Sri Lanka.....	120	62	51.7	22.6	125	84	67.2	27.4
Taiwan.....	4,916	862	17.5	71.5	9,115	1,897	20.8	58.2
Thailand.....	572	339	59.3	34.8	1,096	638	58.2	35.3
Vietnam.....	102	72	70.6	4.2	300	245	81.7	16.3
Eastern Europe/Central Asia								
Armenia.....	232	86	37.1	24.4	261	157	60.2	28.7
Azerbaijan.....	214	46	21.5	13.0	90	35	38.9	5.7
Bulgaria.....	1,311	512	39.1	19.7	1,182	682	57.7	18.9
Belarus.....	1,127	189	16.8	6.3	743	372	50.1	13.7
Czech Republic.....	2,746	1,179	42.9	16.6	3,753	1,936	51.6	19.8
Estonia.....	290	149	51.4	18.8	506	280	55.3	20.4
Georgia.....	190	91	47.9	8.8	196	136	69.4	15.4
Hungary.....	2,460	1,198	48.7	30.8	3,624	1,987	54.8	29.0
Kazakhstan.....	236	76	32.2	11.8	160	70	43.8	27.1
Latvia.....	230	128	55.7	13.3	246	147	59.8	15.0

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			Number	Percent			Number	Percent
Lithuania	261	121	46.4	18.2	425	257	60.5	16.7
Moldova	193	62	32.1	3.2	132	93	70.5	11.8
Poland	5,384	2,346	43.6	24.5	7,901	3,798	48.1	26.7
Romania	885	369	41.7	25.2	1,486	812	54.6	20.1
Russia	24,463	5,080	20.8	22.1	20,356	7,774	38.2	24.1
Slovakia	1,424	490	34.4	15.5	1,445	814	56.3	20.0
Ukraine	3,396	859	25.3	9.8	3,187	1,603	50.3	18.7
Uzbekistan	336	80	23.8	11.3	263	96	36.5	15.6
Near East/North Africa								
Algeria	207	140	67.6	9.3	354	231	65.3	2.6
Egypt	1,635	462	28.3	34.4	1,853	553	29.8	32.4
Iran	290	104	35.9	39.4	1,155	296	25.6	26.0
Israel	7,045	2,669	37.9	59.7	8,502	3,561	41.9	52.2
Jordan	182	67	36.8	41.8	315	137	43.5	35.8
Kuwait	222	66	29.7	36.4	319	107	33.5	28.0
Lebanon	82	35	42.7	57.1	277	131	47.3	45.8
Morocco	334	266	79.6	14.3	756	525	69.4	7.4
Oman	63	29	46.0	31.0	131	60	45.8	20.0
Saudi Arabia	854	218	25.5	31.2	727	248	34.1	33.9
Tunisia	208	123	59.1	8.1	489	265	54.2	7.2
United Arab Emirates	142	77	54.2	20.8	224	115	51.3	16.5
Pacific								
Australia	14,663	3,606	24.6	36.2	18,589	6,751	36.3	37.2
New Zealand	2,941	873	29.7	38.3	3,716	1,435	38.6	34.2
Central/South America								
Argentina	2,118	676	31.9	33.1	3,812	1,587	41.6	34.9
Brazil	3,989	1,624	40.7	40.1	9,078	3,369	37.1	39.0
Chile	1,076	475	44.1	36.2	1,780	954	53.6	39.2
Colombia	233	149	63.9	46.3	554	373	67.3	40.8
Costa Rica	118	85	72.0	58.8	182	145	79.7	48.3
Cuba	192	89	46.4	10.1	491	334	68.0	9.3
Peru	106	71	67.0	56.3	205	180	87.8	53.9
Uruguay	124	69	55.6	18.8	263	184	70.0	29.3
Venezuela	562	259	46.1	40.5	789	434	55.0	35.9
Sub-Saharan Africa								
Cameroon	142	98	69.0	22.4	148	114	77.0	17.5
Ethiopia	125	71	56.8	16.9	158	106	67.1	17.0
Ghana	96	50	52.1	30.0	152	105	69.1	21.9
Kenya	418	239	57.2	36.4	436	337	77.3	35.0
Nigeria	573	184	32.1	23.4	430	166	38.6	27.1
Senegal	130	87	66.9	23.0	126	103	81.7	7.8
South Africa	2,830	667	23.6	32.8	3,050	1,266	41.5	31.1
Tanzania	176	127	72.2	22.8	180	156	86.7	19.9
Uganda	62	36	58.1	50.0	160	120	75.0	47.5
Zimbabwe	191	95	49.7	30.5	179	114	63.7	28.9

na not applicable

NOTES: Internationally coauthored articles are those with at least one coauthor from another country. Article counts are on a whole-count basis, where each coauthor's country, including the United States, is credited with a whole count. Countries whose share of world article output is less than 0.01 percent are excluded.

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.