



APPENDIX TABLE 5-37

S&E articles in other life sciences, by region, country, or economy: 2003–16

(Number)

Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
World	16,238.0	17,092.0	18,983.0	20,199.0	20,920.0	22,071.0	22,982.0	24,275.0	26,716.0	28,679.0	28,942.0	28,894.0	28,943.0	28,656.0
North America	9,114.4	9,511.3	10,290.3	10,753.4	10,590.5	10,784.4	11,125.7	11,289.1	11,982.2	12,725.4	12,626.7	12,472.7	11,976.6	11,416.1
Canada	860.3	901.4	1,075.9	1,107.8	1,141.8	1,210.8	1,354.5	1,342.6	1,367.1	1,472.4	1,542.7	1,448.5	1,376.4	1,282.5
Greenland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.0
Mexico	101.6	74.3	57.6	106.6	198.1	100.4	149.0	108.6	131.3	119.1	163.5	133.2	138.6	190.2
United States	8,152.5	8,535.7	9,156.7	9,539.0	9,250.6	9,473.2	9,622.2	9,837.3	10,483.9	11,133.9	10,920.3	10,891.1	10,461.6	9,943.4
Central America and Caribbean	8.0	13.1	8.9	41.9	28.7	28.0	33.6	33.4	61.6	37.4	31.0	28.4	41.8	45.8
Antigua and Barbuda	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bahamas, The	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.8	0.0	0.0	1.0	0.0	0.0
Barbados	0.0	0.8	1.0	1.8	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0	0.0
Belize	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.3	0.0	0.0	0.4	0.0	0.0
Costa Rica	2.0	0.3	1.5	0.0	2.4	2.9	0.3	1.8	5.9	3.0	0.9	3.1	1.5	3.0
Cuba	3.0	2.8	0.2	27.9	14.2	8.6	15.0	19.2	33.7	20.6	13.5	6.0	19.0	22.4
Dominica	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.4	0.0	0.5	1.2
Dominican Republic	0.0	0.3	0.0	0.0	0.7	0.7	0.3	0.6	1.7	0.7	0.1	2.8	0.5	0.9
El Salvador	0.0	0.2	0.0	0.8	0.0	0.1	0.0	0.0	0.3	0.2	0.0	0.2	1.3	0.5



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Grenada	0.0	1.0	0.0	1.0	0.3	0.0	1.0	0.3	0.0	0.2	1.1	0.1	0.5	0.5
Guatemala	0.0	0.8	0.0	1.3	0.3	1.1	0.3	1.5	2.1	2.3	1.7	0.3	2.8	0.2
Haiti	0.0	0.6	0.1	0.0	0.0	0.6	0.6	1.1	1.0	0.5	1.0	0.4	0.7	0.4
Honduras	0.0	0.7	0.0	0.0	0.0	1.5	0.6	0.0	0.8	0.0	0.1	0.0	1.1	0.0
Jamaica	0.3	1.0	0.8	1.7	1.3	2.0	4.4	0.6	2.1	2.2	3.4	5.3	6.6	7.4
Nicaragua	0.0	0.0	0.9	0.2	0.9	2.8	2.1	0.8	1.8	1.1	0.8	1.0	0.7	0.0
Panama	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.3	0.3	0.1	0.7	2.2
Puerto Rico	2.8	3.6	4.4	4.5	4.8	4.7	6.5	4.9	8.0	6.1	5.0	5.0	4.1	4.0
Saint Kitts and Nevis	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.0	0.3	0.0	0.0	0.0
Saint Lucia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Saint Vincent and the Grenadines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.3	0.0
Trinidad and Tobago	0.0	1.0	0.0	2.6	2.3	1.5	1.9	2.7	1.6	0.3	1.5	2.7	0.4	3.0
South America	266.8	311.7	368.1	520.4	684.0	789.5	1,013.6	1,096.3	1,409.3	1,514.8	1,514.7	1,519.1	1,566.0	1,485.8
Argentina	8.3	4.9	8.3	2.5	15.6	13.7	14.8	21.0	24.4	21.3	16.4	35.0	30.2	56.9
Bolivia	0.0	0.0	1.0	0.0	0.6	0.0	0.0	2.4	3.5	1.3	0.0	0.0	0.7	0.7
Brazil	244.1	291.8	340.7	480.5	617.4	702.7	893.2	972.9	1,252.3	1,343.2	1,331.3	1,323.9	1,309.3	1,131.1
Chile	7.3	7.1	5.2	16.6	28.7	28.7	50.8	41.2	63.5	65.4	86.0	77.4	74.4	78.8
Colombia	1.0	5.9	5.3	11.5	12.9	19.1	24.8	34.3	47.1	46.7	57.5	60.5	102.2	154.8
Ecuador	0.0	0.0	3.8	0.3	0.5	1.2	1.9	2.1	1.3	0.3	0.0	1.5	9.3	20.6



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Guyana	0.0	0.0	0.0	0.4	0.0	0.0	0.0	1.0	0.2	0.0	0.0	0.0	0.3	0.1
Paraguay	0.0	0.0	1.0	0.0	0.8	1.0	0.4	0.3	0.0	0.6	0.1	0.1	0.9	0.0
Peru	2.0	1.0	2.0	4.0	2.5	7.3	1.5	3.9	3.8	2.3	2.6	1.8	10.0	10.7
Suriname	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uruguay	1.9	0.0	0.8	1.5	2.1	0.0	3.7	4.5	0.3	4.0	2.6	3.3	2.9	2.4
Venezuela	2.3	1.0	0.0	3.2	3.0	15.8	22.5	12.7	12.9	29.7	18.1	15.7	26.0	29.7
Europe	4,853.1	4,798.9	5,827.3	6,061.0	6,372.8	6,694.5	6,981.9	7,382.0	8,291.8	8,841.0	9,258.6	9,013.3	9,167.5	9,076.8
EU	4,587.4	4,516.7	5,492.0	5,709.8	5,999.7	6,190.0	6,464.1	6,734.4	7,641.6	8,064.3	8,478.9	8,194.9	8,348.2	8,137.3
Austria	21.8	21.0	25.5	27.9	26.9	26.6	39.6	46.1	61.0	59.7	63.3	65.8	66.9	52.3
Belgium	81.9	76.7	93.6	91.4	124.3	133.7	149.9	167.4	216.2	201.9	240.8	216.4	209.6	200.0
Bulgaria	1.0	3.2	1.4	1.0	1.0	4.4	2.8	1.3	1.8	2.8	2.1	1.7	5.5	6.9
Croatia	23.3	17.7	22.8	15.3	4.2	30.3	20.2	22.5	42.9	37.9	48.3	50.5	25.4	37.1
Cyprus	0.7	1.0	1.0	2.3	2.2	5.3	3.9	11.7	19.3	16.2	17.2	26.1	20.7	18.5
Czech Republic	13.7	19.2	23.6	24.6	14.2	22.7	22.6	29.8	43.5	33.5	43.4	51.4	55.4	83.2
Denmark	31.5	46.6	72.1	55.1	78.0	80.4	109.4	87.9	127.9	147.9	168.2	169.8	211.9	208.6
Estonia	5.3	5.3	3.0	2.4	5.4	3.8	9.2	12.6	9.4	8.6	12.6	9.9	9.0	8.7
Finland	125.9	128.8	100.8	122.4	141.0	143.2	160.9	142.7	169.2	170.2	189.7	202.4	198.9	212.9
France	259.4	255.7	322.2	527.7	535.8	569.8	596.7	653.5	717.0	765.2	789.0	767.3	705.4	747.1
Germany	349.3	381.4	490.5	396.9	413.5	449.9	431.3	479.9	584.9	666.3	580.4	608.6	561.8	558.2



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Greece	42.7	40.1	56.7	62.8	49.5	77.1	73.0	103.6	124.7	118.7	111.6	105.9	83.2	94.4
Hungary	10.0	7.0	10.7	10.1	17.8	11.6	15.1	17.9	20.8	19.2	18.9	45.0	22.1	25.8
Ireland	50.6	86.7	107.1	136.2	167.0	170.7	217.0	179.8	199.5	218.2	215.9	231.5	207.4	219.1
Italy	111.2	127.8	172.5	168.7	209.8	256.9	306.1	254.4	365.4	322.9	378.3	431.1	504.7	459.6
Latvia	0.4	2.0	0.3	0.0	0.0	0.0	0.0	0.0	0.7	1.9	1.3	2.9	2.0	1.3
Lithuania	0.5	0.9	4.3	4.0	7.6	2.3	2.2	1.2	9.7	5.9	7.5	5.0	6.5	4.8
Luxembourg	0.0	0.4	1.0	0.2	1.0	1.5	1.0	0.0	0.3	1.0	2.8	6.3	4.1	3.3
Malta	1.0	1.0	2.5	3.0	4.0	4.5	0.0	2.5	3.8	10.1	9.0	10.6	6.3	10.4
Netherlands	200.2	220.1	291.6	312.4	355.4	363.4	479.1	526.2	561.2	512.4	573.9	517.2	567.9	535.5
Poland	6.6	15.3	12.3	14.3	19.4	22.7	25.6	18.5	25.9	36.4	58.3	85.4	79.7	122.6
Portugal	23.9	13.4	33.9	22.4	38.4	46.8	48.9	56.8	82.7	81.3	116.8	120.7	132.1	160.3
Romania	6.5	0.6	1.7	5.9	39.5	31.6	55.7	56.3	53.0	65.3	100.0	52.2	88.6	51.8
Slovakia	18.3	15.7	8.5	10.5	3.1	2.7	7.5	18.4	21.9	19.4	14.3	28.4	16.1	25.0
Slovenia	22.0	5.3	13.3	4.5	11.2	12.0	20.1	24.5	19.0	18.3	14.9	21.2	32.0	24.3
Spain	197.1	182.9	300.3	347.8	325.7	338.5	374.3	430.8	501.5	591.4	614.0	583.1	990.5	928.5
Sweden	325.9	338.4	353.7	400.3	489.7	457.7	499.9	511.4	542.1	560.3	635.6	592.8	600.8	602.6
United Kingdom	2,656.7	2,502.6	2,965.0	2,939.9	2,914.2	2,920.0	2,792.2	2,876.5	3,116.4	3,371.6	3,450.6	3,185.7	2,933.4	2,734.5
Other Europe	265.8	282.2	335.3	351.2	373.1	504.4	517.8	647.6	650.3	776.7	779.7	818.4	819.3	939.5
Albania	0.0	0.1	0.0	0.2	0.2	0.3	1.1	0.4	0.0	2.0	2.2	3.0	0.0	3.8



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Andorra	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Belarus	0.0	1.2	1.0	1.9	2.0	1.0	1.7	1.0	2.0	2.0	3.0	1.2	1.0	0.0
Bosnia and Herzegovina	0.0	0.0	0.0	0.0	0.0	1.0	1.7	3.3	1.8	6.3	7.3	12.5	3.5	2.7
Holy See (Vatican City)	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Iceland	9.4	7.8	13.7	12.3	9.7	21.9	22.7	18.8	15.9	14.1	20.9	25.8	21.5	29.3
Kosovo	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.0	0.0	0.0	1.0	0.7
Liechtenstein	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Macedonia	0.0	0.2	0.0	0.5	0.0	0.0	0.5	4.5	6.8	3.0	3.0	2.3	6.2	12.1
Moldova	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3	1.5	1.1	0.5	0.4	1.0	0.5
Monaco	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.8	1.0	0.0	0.0	0.0	0.0
Montenegro ^a	na	na	na	na	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	1.9	0.0
Norway	90.9	87.1	102.6	100.9	112.3	197.2	169.1	208.7	230.3	269.6	275.9	293.4	277.8	288.7
Russia	10.1	3.4	11.7	4.2	8.4	4.2	6.2	4.2	11.5	9.3	9.0	12.8	15.9	26.9
San Marino	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serbia ^a	na	na	na	na	3.0	5.6	4.5	21.0	16.4	30.3	33.7	34.9	38.2	21.6
Serbia and Montenegro ^b	2.4	2.0	1.9	1.0	na	na	na	na	na	na	na	na	na	na
Switzerland	99.1	99.4	118.8	123.4	99.3	125.7	141.6	147.4	189.9	200.7	218.3	222.4	196.0	212.4
Turkey	53.9	78.2	84.1	106.2	136.7	147.6	167.6	234.3	172.4	233.7	203.7	206.7	251.9	334.2
Ukraine	0.0	0.0	1.5	0.5	1.6	0.0	1.2	2.9	0.0	2.6	1.9	3.0	2.4	6.5



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Middle East	126.5	137.6	159.1	166.3	215.9	238.8	314.3	309.7	403.2	455.1	455.5	590.1	537.6	663.7
Armenia	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.5	0.0	1.5	1.0	0.7
Azerbaijan	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.8	1.0	0.0	0.0	2.5	0.0
Bahrain	1.0	1.7	0.3	0.3	1.2	0.7	2.4	1.5	0.2	2.0	0.0	1.2	1.1	0.2
Gaza Strip	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.2	0.8	1.3	1.0	1.7	2.8
Georgia	2.0	2.0	1.0	2.9	0.7	4.7	5.4	2.5	0.0	0.3	1.5	2.9	3.7	4.8
Iran	9.2	17.5	19.3	33.2	45.0	58.7	82.2	76.7	139.0	184.5	168.2	229.0	190.3	259.1
Iraq	0.0	0.0	2.4	0.3	4.2	0.0	0.3	0.0	0.0	1.8	0.9	4.3	2.0	1.6
Israel	96.0	89.1	97.0	96.9	117.0	117.7	147.3	141.8	174.2	156.9	160.8	178.6	171.6	188.9
Jordan	6.2	10.5	17.9	9.7	18.8	20.6	35.2	29.9	45.8	40.3	43.8	68.9	57.2	72.3
Kuwait	3.6	2.0	3.2	2.8	4.0	7.2	7.0	6.2	2.4	2.2	5.2	5.5	7.5	6.6
Lebanon	3.2	5.8	6.7	6.4	11.9	8.6	10.3	19.0	11.9	18.3	18.9	20.4	18.1	26.4
Oman	0.0	1.4	2.4	0.8	2.1	0.0	1.9	2.1	3.1	1.5	5.1	13.3	11.4	13.6
Qatar	0.0	0.0	0.0	0.8	1.0	0.5	1.7	5.3	3.8	4.7	7.8	17.3	13.2	12.4
Saudi Arabia	0.5	1.7	3.4	6.0	5.5	15.6	9.9	15.4	14.0	29.9	26.3	34.2	40.9	59.3
Syria	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.7	0.5	0.8	0.5	0.6
United Arab Emirates	3.7	4.1	2.5	5.2	3.0	2.3	7.7	6.8	6.4	9.9	10.6	8.8	12.2	11.7
West Bank	1.0	1.1	2.0	0.6	1.3	2.3	2.8	1.4	1.4	0.0	3.1	2.3	2.6	2.4
Yemen	0.0	0.8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.1	1.3	0.1	0.1	0.3



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Ethiopia	0.0	0.9	0.5	2.8	3.5	4.0	5.6	5.6	6.4	16.3	19.9	21.4	22.3	25.6
Gabon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.4	0.0	1.0	0.0
Gambia, The	0.0	0.0	1.5	0.2	1.1	0.0	0.0	0.6	0.6	0.7	0.0	1.0	0.9	0.6
Ghana	4.4	3.0	1.4	1.7	5.5	6.2	3.0	4.6	19.3	17.8	20.4	17.1	30.2	30.4
Guinea	0.0	0.0	0.0	1.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	1.0	0.9
Guinea-Bissau	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.0	0.0
Kenya	3.4	2.0	5.2	2.7	8.3	11.3	13.6	13.2	16.1	20.5	24.8	34.1	21.7	25.3
Lesotho	0.7	0.0	1.3	0.1	0.3	0.7	0.4	0.2	0.1	0.9	0.0	0.5	1.5	0.8
Liberia	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.6	2.3	1.6	0.0	0.8	0.0	0.9
Libya	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.4	0.5	0.0	0.0	8.2
Madagascar	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	1.0	1.1	0.0	0.0
Malawi	2.3	2.7	2.8	2.7	8.2	8.3	1.9	9.4	5.8	8.0	4.2	10.0	5.8	18.6
Mali	0.4	0.0	0.0	0.3	0.0	0.5	0.6	0.4	0.7	0.2	0.9	1.2	2.6	0.4
Mauritania	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mauritius	0.0	0.0	3.3	0.8	0.2	1.5	0.0	0.0	1.0	2.0	0.2	0.2	2.5	0.0
Morocco	0.0	0.4	1.4	0.7	0.0	1.5	2.8	1.4	2.4	3.7	3.9	2.7	8.5	105.3
Mozambique	0.0	0.2	0.0	1.2	0.8	0.5	1.4	1.9	0.1	0.8	4.0	3.5	2.7	2.5
Namibia	1.0	1.0	0.1	0.5	2.2	0.3	1.1	0.7	2.2	1.3	3.7	2.6	1.0	1.9
Niger	0.0	0.5	0.0	0.5	0.2	0.4	1.5	0.2	0.7	0.0	0.8	0.1	2.8	0.0



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Nigeria	3.2	7.9	8.9	24.0	31.5	15.9	22.7	33.2	43.8	37.7	39.8	41.6	25.4	54.7
Rwanda	0.0	1.8	0.3	0.6	0.2	1.3	1.8	2.9	3.5	1.7	4.8	3.8	2.0	4.6
São Tomé and Príncipe	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Senegal	0.3	1.0	0.0	0.3	0.0	0.1	2.4	2.8	2.1	0.2	0.3	0.4	0.6	2.0
Seychelles	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Sierra Leone	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.6	0.2	1.6	3.0
Somalia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.6	0.0	0.0
South Africa	88.7	79.0	115.1	111.6	123.1	155.5	186.0	182.0	240.2	220.6	246.0	272.2	323.2	362.3
South Sudan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sudan	0.0	1.6	0.0	1.7	2.4	1.5	1.9	0.4	2.0	0.6	1.2	2.3	2.1	4.6
Swaziland	0.5	1.8	0.5	2.5	0.7	0.5	1.9	2.0	1.2	2.2	1.0	0.6	1.6	1.9
Tanzania	0.1	2.1	2.1	6.8	7.4	10.0	8.9	11.9	10.8	8.5	19.4	16.7	18.9	15.0
Togo	0.0	0.0	0.0	0.0	0.0	1.1	1.0	0.0	0.0	0.0	0.5	0.3	0.1	1.0
Tunisia	2.8	0.6	1.3	3.0	2.5	2.7	6.5	3.4	5.0	5.0	9.0	8.7	13.0	19.7
Uganda	4.2	7.0	4.5	5.5	9.1	9.8	16.7	17.8	15.3	15.6	19.0	23.0	22.6	28.0
Western Sahara	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Zambia	1.8	0.8	0.3	4.6	2.8	3.7	5.2	7.4	5.8	7.5	6.0	7.3	5.6	6.3
Zimbabwe	1.8	2.4	1.9	1.8	3.8	1.0	1.4	3.7	4.5	7.8	4.9	11.5	6.8	7.9
Asia	695.2	1,127.5	1,014.9	1,054.8	1,265.3	1,563.4	1,503.9	1,851.9	1,928.4	2,265.2	2,208.9	2,479.9	2,716.3	3,029.1



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Afghanistan	0.0	0.0	0.3	0.0	1.7	1.0	1.1	3.4	3.3	1.2	4.7	0.8	1.7	1.4
Bangladesh	1.0	1.3	2.0	4.2	7.4	3.3	1.7	5.6	10.2	12.5	7.3	9.3	9.5	12.4
Bhutan	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.3	0.0	0.2	0.0	1.0	0.5	1.0
Brunei	0.0	0.0	1.0	2.0	0.5	0.1	0.1	0.3	1.4	0.9	0.8	1.3	1.0	6.1
Burma	1.1	0.0	0.0	0.0	0.0	0.5	0.0	1.1	0.0	0.5	0.0	0.0	0.3	1.6
Cambodia	0.0	0.1	0.8	0.9	2.7	1.5	2.1	1.3	3.4	3.0	2.8	2.8	1.4	5.6
China	144.5	226.9	167.7	208.0	247.7	335.5	263.6	406.2	359.0	540.6	441.8	631.2	681.6	755.3
India	46.7	77.1	69.8	73.9	88.3	116.4	100.0	112.1	143.9	207.3	194.9	206.5	218.9	432.9
Indonesia	1.3	2.8	2.6	3.4	3.1	1.5	6.3	1.7	6.4	10.0	10.8	7.5	10.0	16.7
Japan	263.4	297.7	271.6	276.8	295.4	361.4	313.1	363.2	392.6	371.3	366.3	358.6	383.1	434.3
Kazakhstan	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	1.0	2.7	1.6	1.5
Kyrgyzstan	0.0	0.0	0.0	0.0	0.0	0.4	0.0	1.0	0.0	0.0	0.5	0.5	0.0	0.6
Laos	0.3	0.0	0.0	0.3	0.0	0.1	0.1	1.1	0.7	1.1	1.8	1.4	0.1	1.9
Malaysia	1.0	4.8	7.2	7.3	5.5	12.6	16.1	30.5	35.9	43.0	46.9	55.2	72.6	66.9
Maldives	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0
Mongolia	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.0	0.5	1.3	0.8	0.2	0.3	0.5
Nepal	0.3	1.0	0.5	1.1	1.8	1.3	2.8	0.6	4.4	4.8	4.6	3.7	6.5	8.2
North Korea	0.0	0.0	0.2	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
Pakistan	1.0	4.1	7.9	6.7	5.8	9.3	18.1	7.9	19.8	18.5	21.9	21.0	30.4	20.7



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Papua New Guinea	0.0	0.3	0.5	0.0	0.0	0.1	0.8	0.0	0.8	2.2	2.1	2.5	1.2	0.8
Philippines	1.5	1.8	2.4	4.3	12.7	7.6	10.4	14.0	11.4	5.1	6.8	1.5	6.1	9.4
Singapore	18.0	17.3	24.8	26.4	55.4	53.4	38.5	68.2	76.3	107.3	105.0	126.1	138.9	103.9
South Korea	71.9	248.3	201.6	155.5	170.2	236.6	230.1	254.6	264.5	276.2	419.0	475.5	541.1	571.4
Sri Lanka	1.5	1.7	0.3	2.0	2.4	4.7	0.4	3.7	4.0	6.7	9.2	6.2	7.7	6.2
Taiwan	122.5	216.3	222.9	244.4	310.1	361.6	444.7	523.0	540.3	564.0	493.2	497.2	535.3	464.4
Tajikistan	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.5	0.3	0.3	0.5	0.3	0.0	0.5
Thailand	17.0	23.3	26.0	34.8	48.2	48.8	45.6	41.1	42.6	63.2	58.1	57.6	59.5	68.7
Timor-Leste	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.7
Turkmenistan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uzbekistan	0.0	0.0	1.3	0.0	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Vietnam	2.3	2.6	3.1	2.2	5.4	4.5	7.6	8.5	6.0	23.7	7.9	7.2	6.8	35.3
Australia and Oceania	872.7	922.9	1,006.6	1,195.8	1,249.8	1,425.2	1,418.7	1,519.7	1,654.5	1,806.6	1,907.3	2,096.8	2,183.6	2,011.7
Australia	778.4	813.5	876.2	1,070.6	1,110.0	1,282.0	1,273.3	1,370.3	1,460.6	1,592.9	1,705.0	1,885.3	1,978.8	1,834.0
Cook Islands	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fiji	0.0	0.2	0.0	0.3	0.0	0.4	1.2	0.0	1.5	1.0	0.2	0.0	0.4	0.3
Kiribati	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Marshall Islands	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.8
Micronesia, Federated States of	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0



Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Nauru	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Zealand	94.3	108.6	130.5	123.9	139.8	142.7	143.3	149.4	192.1	212.2	199.7	211.2	204.2	176.4
Niue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Palau	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Samoa	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Solomon Islands	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1	0.2
Tonga	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tuvalu	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Vanuatu	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Unassigned	181.4	139.2	146.6	208.5	269.9	284.3	276.6	454.1	545.8	605.3	470.4	160.2	166.4	114.0

na = not applicable; country data do not exist.

EU = European Union.

^a Beginning in 2006, Serbia and Montenegro represented individual countries.

^b Serbia and Montenegro represented a single country for data purposes from 1992 to 2006.

Note(s)

Article counts refer to publications from a selection of journals, books, and conference proceedings in S&E from Scopus. Articles are classified by their year of publication and are assigned to a region, country, or economy on the basis of the institutional address(es) listed in the article. Articles are credited on a fractional-count basis. The sum of the regions, countries, or economies may not add to the world total because of rounding. Some publications have incomplete address information for coauthored publications in the Scopus database. The unassigned category count is the sum of fractional counts for publications that cannot be assigned to a region, country, or economy.

Source(s)

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