

Table SPBS-6

## S&amp;E articles in chemistry, fractional count, by region, country, or economy: 1996–2020

(Number)

Region, country, or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
World	71,301.00	71,615.00	72,497.00	72,195.00	73,469.00	74,999.00	80,182.00	81,532.00	86,619.00	96,620.00	99,863.00	103,199.00	104,626.00	109,602.00	111,209.00	119,708.00	124,581.00	131,422.00	137,052.00	144,025.00	145,645.00	148,399.00	157,926.00	165,962.00	178,415.00
North America	16,182.37	15,496.67	14,824.42	14,184.71	14,109.76	13,302.77	16,533.43	15,259.60	15,623.22	16,669.38	16,769.30	17,476.56	17,524.56	17,330.98	17,807.34	18,821.88	18,646.93	19,169.44	18,874.07	18,891.37	18,750.11	18,450.06	18,999.14	18,460.59	19,157.61
Canada	1,868.36	1,718.54	1,641.92	1,517.53	1,526.26	1,539.34	1,737.31	1,726.28	1,819.45	1,910.17	2,108.38	2,063.40	2,073.32	2,243.52	2,158.70	2,373.87	2,394.97	2,331.67	2,272.33	2,425.12	2,327.32	2,354.89	2,406.55	2,383.42	2,407.47
Greenland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.05	0.60	
Mexico	215.80	248.54	243.91	234.78	253.76	270.42	276.99	338.58	382.94	439.75	357.51	483.91	498.80	533.11	524.55	525.76	561.59	626.34	646.52	666.48	689.10	818.11	856.48	981.22	1,117.55
United States	14,098.21	13,529.60	12,938.59	12,432.40	12,329.74	11,493.01	14,519.14	13,194.75	13,420.82	14,319.46	14,303.40	14,929.25	14,952.44	14,554.36	15,124.09	15,922.25	15,690.36	16,211.42	15,955.22	15,799.71	15,733.69	15,277.05	15,736.12	15,095.90	15,631.99
Central America and Caribbean	62.94	84.58	99.73	98.32	69.54	75.72	66.45	78.65	93.56	69.15	69.32	90.84	93.41	103.49	80.99	96.68	112.83	79.65	83.00	78.27	71.04	89.81	80.94	94.57	92.07
Antigua and Barbuda	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bahamas, The	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00
Barbados	1.20	0.98	2.77	2.20	1.53	1.00	0.50	1.25	2.00	1.50	2.00	0.93	1.00	0.00	0.40	0.77	0.40	1.17	1.06	1.00	2.04	2.13	1.07	0.78	0.83
Belize	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Costa Rica	3.74	4.20	2.23	3.20	3.93	4.79	5.29	2.25	4.36	1.83	1.54	3.70	8.03	3.67	3.34	8.57	4.16	3.64	7.16	4.42	5.08	15.82	14.22	16.28	12.81
Cuba	39.54	51.23	48.46	52.41	42.16	39.15	34.12	44.24	49.76	31.32	34.43	43.41	41.07	42.71	27.18	40.64	45.22	31.83	21.28	31.95	26.02	25.52	24.37	29.98	32.22
Dominica	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dominican Republic	0.06	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.10	0.27	0.38	0.00	0.14	0.10	0.13	0.00	1.64	1.38
El Salvador	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.07	0.00	0.00	0.17	0.14	0.00	0.20	0.40	0.25
Grenada	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.61	0.00	0.00	0.00	0.00
Guatemala	0.00	0.08	0.00	0.39	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.25	0.00	1.61	0.00	0.00	0.00	0.17	0.20	0.27	0.16	0.00
Haiti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00
Honduras	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.13	0.13	0.60
Jamaica	4.63	10.68	6.78	6.08	5.88	10.02	11.70	8.64	7.00	12.16	6.67	6.74	7.12	9.00	7.40	7.17	8.90	11.20	7.53	0.80	3.68	1.65	8.46	8.69	7.27
Nicaragua	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.30	0.38	0.00	0.00	0.00	0.30	0.00	0.30	0.25	0.22	0.00	0.08	0.00	0.14	0.00	0.20	0.08
Panama	0.27	0.00	0.20	0.20	0.37	0.00	0.14	0.20	2.09	0.55	1.10	0.22	1.47	1.27	0.25	0.41	2.93	0.49	1.05	2.70	4.19	4.03	3.75	5.99	6.86
Puerto Rico	10.72	15.32	36.90	29.61	13.43	14.17	9.37	19.61	24.64	17.08	22.92	31.66	30.68	42.75	35.74	31.68	41.94	26.62	39.37	30.72	25.58	32.43	21.93	26.09	24.42
Saint Kitts and Nevis	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
Saint Lucia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Saint Vincent and the Grenadines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trinidad and Tobago	2.79	1.08	2.06	4.22	2.23	5.35	5.33	2.47	3.22	4.33	0.67	3.18	4.04	3.80	6.30	6.82	7.08	4.10	5.47	6.27	3.42	7.92	6.15	4.08	5.17
South America	980.42	1,212.85	1,253.30	1,400.94	1,708.20	1,682.66	1,880.55	1,960.11	1,964.46	2,291.01	2,350.85	2,553.61	2,777.02	2,779.21	2,773.06	2,917.33	3,013.79	3,176.11	3,207.35	3,207.09	3,342.33	3,761.68	4,051.41	4,197.18	4,974.86
Argentina	284.99	282.83	294.88	328.07	447.83	339.86	378.59	381.43	306.69	376.44	323.51	350.58	411.41	388.22	384.11	430.87	387.86	433.50	404.91	443.90	451.77	456.62	469.89	490.37	498.63
Bolivia	0.00	0.75	0.83	0.00	0.40	0.00	0.00	0.38	1.53	0.00	0.17	0.92	0.63	0.75	0.60	1.07	0.00	1.32	0.47	1.52	1.13	0.54	1.00	2.06	2.03
Brazil	433.31	630.14	667.08	781.33	893.58	1,008.78	1,155.22	1,168.18	1,280.90	1,483.16	1,652.65	1,782.21	1,891.98	1,909.25	1,930.94	1,992.93	2,157.86	2,242.70	2,333.48	2,287.76	2,384.49	2,737.27	2,929.82	3,054.50	3,653.44
Chile	138.34	146.88	143.39	129.13	154.57	163.77	167.12	205.16	161.38	172.28	170.26	159.81	165.16	202.94	187.45	216.56	215.04	239.40	222.49	221.53	272.52	248.03	301.85	316.09	334.17
Colombia	19.00	18.71	29.06	28.91	39.53	29.12	43.79	32.93	44.34	47.88	45.63	55.61	98.93	108.07	124.41	146.62	121.49	130.38	135.27	148.79	147.01	202.04	228.83	217.18	327.92
Ecuador	0.33	0.75	0.48	0.83	0.00	0.17	0.30	0.83	0.00	3.46	0.41	1.81	0.37	0.96	1.00	0.67	0.74	3.17	9.06	11.55	18.22	18.28	26.68	28.95	54.15
Guyana	0.00	0.00	0.00	0.00	1.00	2.17	2.00	2.00	3.00	11.42	0.50	1.00	4.13	2.00	2.00	1.00	1.08	1.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00

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Region, country, or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Paraguay	0.50	0.31	0.14	0.38	1.13	0.63	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.53	2.42	0.13	0.09	2.75	0.64	0.75	0.43	1.07	1.48	1.31	2.05
Peru	0.08	0.39	2.23	3.71	0.47	1.71	2.00	5.85	2.53	10.11	6.38	2.21	2.78	1.28	1.83	2.80	3.90	3.85	4.67	7.89	9.12	15.10	16.03	23.84	44.48
Suriname	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Uruguay	7.07	12.10	13.62	20.52	23.02	10.82	10.40	14.43	16.80	14.14	17.82	21.78	28.02	25.15	20.28	29.85	23.61	26.81	25.63	25.72	28.54	45.90	34.41	38.32	33.18
Venezuela	96.79	119.99	101.59	108.06	146.68	125.66	120.30	148.76	147.28	172.12	133.53	177.69	173.48	140.05	118.02	94.83	102.11	91.25	70.72	57.70	29.10	36.83	40.66	24.58	23.81
Europe	32,964.84	33,287.12	34,072.52	32,860.44	33,281.40	33,942.33	34,281.98	34,245.71	35,563.97	35,913.26	34,771.21	36,761.30	36,629.62	37,391.20	37,465.82	38,772.71	39,225.85	41,325.84	40,597.22	42,163.20	42,799.14	42,409.85	43,321.06	44,551.75	48,136.94
EU-27 and UK <sup>a</sup>	25,132.64	25,634.77	26,278.88	25,501.34	25,595.30	25,699.60	26,166.02	26,122.97	27,055.35	27,823.99	27,687.05	29,042.20	28,980.37	29,448.69	29,528.19	30,710.78	31,376.33	32,781.71	32,078.35	33,157.01	33,487.68	33,013.82	33,488.62	34,055.03	36,776.92
UK	4,000.95	3,977.57	3,884.27	3,726.53	3,905.89	3,607.39	3,800.38	3,784.67	3,789.52	3,611.03	3,736.27	3,691.58	3,604.03	3,678.48	3,697.16	3,777.06	3,650.60	3,577.12	3,693.55	3,850.20	3,954.59	3,906.68	3,828.51	3,825.78	4,008.51
EU-27 <sup>b</sup>	21,131.69	21,657.20	22,394.61	21,774.81	21,689.41	22,092.22	22,365.64	22,338.30	23,265.83	24,212.96	23,950.78	25,350.62	25,376.34	25,770.21	25,831.03	26,933.72	27,725.73	29,204.59	28,384.80	29,306.82	29,533.08	29,107.14	29,660.11	30,229.26	32,768.41
Austria	323.27	449.01	389.05	383.72	405.46	447.30	436.34	482.92	558.76	498.79	498.24	516.70	552.64	576.37	557.27	544.59	565.01	628.48	656.38	642.74	656.54	734.39	677.62	758.21	776.98
Belgium	614.12	653.56	624.52	600.57	659.58	582.65	612.03	660.85	661.47	704.74	616.55	674.76	642.76	627.05	731.74	746.08	779.36	812.60	830.35	860.84	836.53	805.46	813.23	826.30	916.48
Bulgaria	222.97	207.18	207.40	181.41	192.88	158.28	168.72	174.82	195.78	188.76	188.12	227.22	258.64	191.94	222.26	230.77	226.37	270.68	205.74	216.48	153.46	199.40	342.58	286.53	281.02
Croatia	173.02	134.61	119.03	170.38	135.44	137.96	148.98	154.50	176.28	211.50	176.72	215.81	221.42	193.77	197.07	215.25	212.86	205.39	177.03	166.22	165.38	210.43	198.52	221.32	225.40
Cyprus	2.20	0.33	4.96	5.42	6.53	6.52	17.33	6.47	12.67	12.57	17.08	31.43	18.46	36.25	30.53	35.48	39.08	49.74	42.02	49.07	37.37	34.97	45.11	51.96	43.51
Czechia	527.73	572.16	618.34	563.55	602.18	640.94	661.45	632.19	701.73	885.25	783.75	859.07	1,030.84	899.78	909.75	1,084.09	994.12	1,138.39	1,015.87	1,092.41	1,068.70	1,080.15	1,072.12	1,106.73	1,178.50
Denmark	239.70	296.20	309.81	331.70	325.09	318.19	329.66	351.39	336.88	384.86	347.54	361.14	330.35	375.59	381.53	445.04	449.49	463.28	502.31	492.07	495.82	485.05	480.38	451.82	521.33
Estonia	29.62	25.79	30.93	34.33	22.13	26.87	36.56	26.86	35.64	36.28	48.56	44.12	45.43	55.30	53.98	54.35	67.92	60.43	75.20	84.24	62.30	76.09	61.27	62.62	73.62
Finland	363.86	347.72	317.68	361.60	392.85	392.76	361.15	312.98	366.95	343.82	339.44	370.21	355.86	376.02	412.33	364.11	363.88	411.71	409.96	451.35	396.34	410.03	416.09	431.19	445.01
France	3,530.37	3,605.58	3,795.11	3,712.75	3,484.87	3,474.35	3,445.53	3,419.46	3,367.92	3,471.83	3,523.06	3,747.71	3,815.10	3,695.28	3,685.19	3,759.15	3,916.69	3,979.47	3,895.65	3,958.16	3,896.85	3,794.62	3,647.21	3,638.70	3,825.27
Germany	5,839.54	6,110.58	6,174.41	5,720.17	5,533.17	5,426.95	5,213.76	5,163.40	5,395.00	5,556.13	5,553.57	5,704.41	5,713.85	5,962.35	6,027.05	6,185.07	6,408.45	6,623.22	6,485.62	6,716.01	6,618.60	6,728.04	6,778.66	6,776.52	7,080.29
Greece	310.42	276.11	299.25	281.65	290.88	373.20	396.18	378.33	424.03	405.37	481.62	513.20	486.46	487.75	427.30	433.21	416.04	428.24	411.45	452.44	441.09	445.25	466.65	452.74	572.25
Hungary	443.74	523.16	557.93	604.88	579.94	543.78	606.63	482.98	539.11	515.80	507.61	428.39	482.64	439.19	427.47	431.58	440.95	410.95	422.89	476.56	441.03	464.74	481.06	476.19	522.29
Ireland	123.62	123.36	145.36	129.44	114.73	138.34	162.35	193.46	187.86	200.28	217.65	241.41	284.18	295.09	353.15	378.50	363.91	355.25	343.30	330.13	320.02	328.51	351.22	336.59	405.90
Italy	2,251.36	2,071.39	2,266.39	2,242.97	2,246.46	2,456.82	2,486.59	2,618.76	2,660.10	2,657.03	2,496.61	2,712.52	2,653.69	2,663.73	2,545.44	2,699.59	2,654.80	2,925.98	2,900.86	3,038.37	3,135.31	2,983.60	3,185.34	3,421.56	3,848.17
Latvia	73.98	89.22	90.20	76.37	59.63	57.61	86.65	48.49	42.36	39.17	31.05	57.65	50.55	65.28	40.38	55.05	71.51	69.94	76.32	108.30	73.91	42.33	54.93	65.99	93.44
Lithuania	38.65	38.32	65.64	48.15	71.42	47.58	78.60	58.38	72.62	54.96	86.54	88.01	139.62	170.25	130.01	144.81	140.58	170.15	170.64	213.45	136.65	137.22	146.86	159.08	206.26
Luxembourg	0.13	0.83	2.59	0.65	3.63	1.83	0.67	3.07	1.24	1.47	4.03	9.45	10.39	10.77	7.70	14.02	15.93	19.28	26.41	20.80	22.31	23.10	17.71	21.30	32.19
Malta	0.13	1.35	1.83	0.00	0.13	2.00	2.22	1.75	0.33	1.50	0.25	1.00	0.00	0.00	1.00	1.00	0.33	1.40	5.47	8.48	4.81	8.13	9.69	4.80	5.91
Netherlands	1,004.35	1,001.54	965.06	948.98	937.36	972.65	937.32	967.29	977.16	1,034.07	939.93	920.02	904.65	996.62	1,032.68	1,002.70	946.73	1,067.01	995.83	994.00	1,107.08	1,009.79	1,054.22	1,134.14	1,178.36
Poland	1,297.08	1,275.81	1,391.51	1,392.13	1,468.65	1,443.01	1,573.06	1,778.17	1,776.85	1,833.27	1,956.74	1,967.42	1,960.55	1,896.37	1,803.52	1,976.67	2,269.14	2,432.09	2,192.67	2,388.14	2,804.67	2,734.71	2,797.54	2,757.19	3,113.11
Portugal	158.14	231.54	213.22	254.70	267.73	357.72	336.66	384.75	428.85	484.42	517.43	569.96	623.52	687.00	671.39	737.78	787.22	896.06	873.43	806.66	787.45	738.26	786.14	837.21	1,025.77
Romania	317.44	381.27	399.15	432.47	414.21	497.52	453.28	405.97	405.01	461.23	438.79	486.53	589.74	715.29	852.84	824.71	793.57	860.39	781.99	910.17	911.82	810.17	816.32	953.02	923.62
Slovakia	296.54	236.57	425.59	251.95	260.06	245.49	221.87	209.02	225.63	299.98	228.51	261.70	340.00	247.74	212.96	352.65	272.81	294.96	278.07	266.99	240.77	254.52	272.88	270.77	310.01
Slovenia	120.73	148.43	143.77	145.36	153.29	168.97	172.35	183.15	157.53	182.10	181.84	212.02	228.62	217.18	200.05	198.51	215.81	228.52	221.36	248.38	221.42	220.35	206.47	226.59	312.77
Spain	2,157.29	2,180.15	2,102.84	2,248.43	2,397.43	2,456.84	2,676.28	2,582.20	2,770.24	3,003.58	3,007.52	3,424.51	2,995.81	3,216.08	3,233.81	3,315.81	3,594.08	3,619.03	3,570.86	3,510.32	3,682.29	3,533.44	3,690.25	3,650.30	3,936.27

Table SPBS-6

## S&amp;E articles in chemistry, fractional count, by region, country, or economy: 1996–2020

(Number)

Region, country, or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Sweden	671.72	675.42	733.05	651.08	663.67	716.08	743.38	656.66	787.86	744.20	762.01	704.24	640.58	672.17	682.64	703.15	719.09	781.96	817.14	804.04	814.58	814.35	790.08	849.93	914.70	
Other Europe	7,832.20	7,652.36	7,793.64	7,359.10	7,686.10	8,242.72	8,115.96	8,122.74	8,508.62	8,089.27	7,084.16	7,719.10	7,649.25	7,942.51	7,937.64	8,061.93	7,849.52	8,544.14	8,518.87	9,006.18	9,311.47	9,396.03	9,832.44	10,496.72	11,360.02	
Other Europe, 2020 <sup>b</sup>	11,833.15	11,629.92	11,677.90	11,085.63	11,591.99	11,850.11	11,916.34	11,907.41	12,298.14	11,700.30	10,820.43	11,410.68	11,253.28	11,620.99	11,634.80	11,838.99	11,500.12	12,121.26	12,212.42	12,856.38	13,266.06	13,302.71	13,660.95	14,322.50	15,368.53	
Albania	3.50	2.26	0.81	0.65	5.67	3.83	3.08	0.33	0.50	0.75	0.25	1.00	0.19	1.92	5.29	7.22	6.63	5.57	4.10	1.80	6.75	3.91	4.49	2.24	1.55	
Andorra	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Belarus	125.82	163.41	163.32	135.19	152.23	154.62	154.23	140.69	140.85	129.35	132.93	130.08	102.09	110.96	110.25	88.34	92.12	93.41	103.99	84.41	72.38	67.99	80.96	88.83	69.01	
Bosnia and Herzegovina	0.67	1.14	0.00	0.00	2.00	0.00	1.14	2.12	1.20	2.39	2.22	3.97	6.63	8.91	7.78	7.52	5.64	10.01	7.65	7.53	9.11	16.31	16.24	19.57	15.89	
Holy See (Vatican City)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.50	0.50	0.50	
Iceland	6.48	4.10	5.11	3.67	3.75	6.04	10.44	4.67	3.57	1.91	4.55	8.11	8.25	6.74	10.10	9.41	13.24	10.07	13.82	12.88	9.10	11.90	14.96	17.52	18.44	
Kosovo	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.07	3.92	5.75	5.95	4.93	4.40	2.62	4.07	5.71	10.22	14.44	8.75	9.77	
Liechtenstein	4.00	6.42	3.60	6.00	1.50	3.67	2.00	2.87	3.07	2.08	5.27	2.19	1.92	2.95	1.04	1.27	2.90	4.03	5.56	3.02	5.39	5.07	2.58	1.97	0.89	
Moldova	46.73	26.82	30.83	38.72	71.19	51.78	48.52	39.09	45.29	49.96	31.82	25.02	51.58	46.44	41.47	44.96	40.10	35.77	40.13	25.58	46.07	33.98	32.46	41.88	31.67	
Monaco	1.85	1.06	1.75	2.83	1.48	7.98	2.68	0.00	3.07	5.73	0.10	1.34	1.00	1.08	3.80	3.11	0.70	0.47	1.33	3.93	2.04	2.78	2.26	2.37	2.91	
Montenegro <sup>c</sup>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.19	3.14	1.61	1.67	4.55	3.39	7.42	5.25	3.73	5.32	4.14	8.06	4.81	3.80	
North Macedonia	18.60	30.05	20.73	27.77	29.85	39.35	25.35	33.02	18.92	19.18	22.14	26.11	26.37	21.97	20.21	23.64	24.20	19.33	23.03	26.15	24.69	17.98	24.21	29.78	26.24	
Norway	205.92	190.48	215.07	188.19	199.09	201.05	147.79	152.25	202.90	218.46	214.16	234.48	193.46	203.01	203.24	209.54	214.14	211.86	218.31	222.51	224.53	232.08	239.40	266.27	305.53	
Russia	5,148.50	4,928.55	5,061.80	4,658.02	4,908.82	5,323.80	5,128.07	5,123.29	5,026.12	4,673.44	3,708.77	4,009.49	3,958.14	4,105.33	4,028.53	4,249.22	3,800.81	4,235.12	4,227.85	4,786.88	5,022.37	5,225.69	5,419.33	5,608.21	6,025.29	
San Marino	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Serbia <sup>c</sup>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	246.04	272.75	317.77	305.81	335.52	405.45	410.00	381.14	367.37	370.13	339.07	327.30	339.35	385.89	
Serbia and Montenegro <sup>d</sup>	217.03	190.98	204.68	163.04	191.00	167.80	158.57	197.29	227.88	214.97	210.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Switzerland	838.49	943.85	885.86	1,010.54	964.49	934.18	950.26	977.63	1,112.36	1,089.86	1,065.16	1,033.57	1,043.24	1,062.78	1,124.34	1,143.66	1,220.79	1,226.09	1,326.38	1,250.23	1,213.01	1,201.00	1,194.12	1,335.47	1,293.74	
Turkey	392.65	433.86	453.88	512.18	492.84	620.80	724.55	785.42	1,019.85	1,015.02	1,186.98	1,457.18	1,402.04	1,515.84	1,511.57	1,412.59	1,454.08	1,683.44	1,594.38	1,628.41	1,825.40	1,776.69	1,951.65	2,206.63	2,587.32	
Ukraine	821.96	729.36	746.20	612.31	662.21	727.81	759.28	664.08	703.04	666.15	499.39	538.34	575.40	531.29	556.79	515.42	560.38	587.14	563.30	577.68	469.48	446.22	498.49	522.59	581.61	
Middle East	727.18	726.90	803.29	866.07	976.83	1,147.76	1,304.95	1,515.91	1,687.89	1,990.64	2,214.26	2,749.62	2,889.30	3,201.67	3,598.23	4,196.51	4,776.25	4,944.80	5,292.84	5,717.59	6,030.22	6,335.89	6,908.88	7,264.28	8,927.25	
Armenia	34.33	43.64	37.82	25.91	40.21	40.47	29.44	44.50	47.82	53.23	55.01	92.38	59.19	38.07	56.16	30.10	39.85	41.22	51.83	45.70	48.97	40.38	50.41	57.38	65.63	
Azerbaijan	52.93	36.20	38.55	27.56	35.68	39.23	40.23	41.39	61.73	71.42	47.37	46.04	56.66	122.85	113.36	120.46	92.89	86.82	58.03	47.19	51.90	81.58	98.88	91.32	95.90	
Bahrain	2.83	0.00	2.50	0.10	0.00	0.00	2.06	1.00	0.00	0.42	1.00	1.00	1.75	0.00	0.33	2.98	1.50	3.81	2.14	3.13	2.33	2.15	3.78	7.97	6.36	
Gaza Strip <sup>e</sup>	0.00	1.58	5.00	13.28	6.50	6.10	11.85	15.87	11.46	8.00	5.63	15.03	15.92	15.90	6.50	7.50	9.28	10.63	6.53	9.31	8.90	6.14	6.11	2.25	8.66	
Georgia	22.11	19.92	21.85	24.26	20.93	21.30	22.96	12.03	19.74	23.56	25.25	21.03	17.85	17.60	21.62	11.72	27.02	15.03	10.87	18.86	8.11	7.86	17.37	26.24	18.19	
Iran	111.01	134.91	215.32	292.60	353.54	490.79	587.44	783.91	921.67	1,175.73	1,434.84	1,849.99	1,998.68	2,262.34	2,502.61	2,978.19	3,388.29	3,482.96	3,664.20	4,014.36	4,189.56	4,301.09	4,757.49	4,785.98	5,444.27	
Iraq	15.54	10.50	6.45	4.50	5.75	5.33	2.92	8.75	6.83	8.99	9.84	19.99	19.48	22.29	31.13	32.81	55.76	66.52	84.77	61.73	70.87	103.51	152.23	194.28	325.99	
Israel	318.80	302.17	311.82	293.08	323.80	331.87	369.85	380.92	362.17	372.47	387.60	401.02	414.07	371.12	370.64	387.69	334.57	401.26	406.36	439.23	451.47	421.04	487.58	447.39	538.75	
Jordan	29.24	38.23	24.17	41.29	32.92	39.57	51.68	41.90	39.39	44.86	61.33	84.88	72.38	75.03	61.60	58.91	58.39	65.11	58.40	55.65	54.80	82.66	95.84	91.96	137.84	
Kuwait	30.48	24.46	25.28	30.43	20.66	26.62	20.51	20.29	26.15	37.34	25.78	33.75	44.76	31.77	34.77	25.13	26.70	39.29	40.44	25.53	32.38	45.80	46.82	71.78	65.58	
Lebanon	1.50	1.80	1.63	1.63	7.72	5.79	6.60	3.70	4.81	7.48	12.04	8.47	16.23	11.45	14.47	18.03	20.15	26.84	28.30	30.66	42.08	42.28	48.59	52.76	64.70	

Table SPBS-6

## S&amp;E articles in chemistry, fractional count, by region, country, or economy: 1996–2020

(Number)

Region, country, or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Oman	1.58	0.52	5.50	4.92	8.30	9.00	9.47	9.99	8.06	8.10	7.51	4.44	13.24	18.02	18.37	19.84	20.06	25.55	37.19	33.51	33.83	51.71	38.37	39.72	51.22
Qatar	1.79	7.40	6.62	3.25	4.17	2.17	1.50	3.13	11.95	7.92	4.62	5.11	6.21	6.08	8.73	8.36	17.22	17.56	26.33	44.61	66.86	70.94	79.84	85.43	138.61
Saudi Arabia	84.26	74.48	79.35	78.02	97.30	97.57	128.67	118.41	126.77	138.88	104.00	121.52	111.95	158.15	289.80	416.05	605.47	585.87	730.17	786.60	869.28	883.16	906.51	1,120.43	1,696.65
Syria	5.14	7.33	6.04	5.95	5.30	5.58	5.00	12.45	13.28	7.15	13.35	6.64	10.50	10.72	24.82	24.78	28.93	20.45	18.92	22.27	16.04	21.36	7.33	22.04	33.00
United Arab Emirates	10.54	14.83	9.08	8.60	11.50	15.56	8.67	8.70	12.23	17.56	13.22	29.17	17.15	16.68	20.75	36.91	37.16	47.57	50.05	66.55	67.26	152.32	93.08	140.18	191.28
West Bank <sup>e</sup>	4.33	3.25	3.31	8.68	2.00	3.13	5.75	5.17	5.97	2.70	2.36	3.42	7.25	15.47	16.39	7.93	5.90	7.33	9.46	6.79	11.55	15.35	8.95	14.52	18.65
Yemen	0.75	5.67	3.00	2.00	0.54	7.68	0.35	3.83	7.87	4.83	3.52	5.75	6.03	8.13	6.17	9.11	7.11	0.98	8.86	5.92	4.02	6.55	9.71	12.63	25.97
Africa	893.66	901.49	901.91	946.92	971.80	966.68	1,113.80	1,167.53	1,236.14	1,230.93	1,422.86	1,546.30	1,460.53	1,533.76	1,719.66	1,868.23	1,954.07	2,129.57	2,078.75	2,418.65	2,645.05	2,895.10	3,146.42	3,699.14	4,789.86
Algeria	29.07	25.69	24.83	35.48	29.34	27.13	38.88	53.12	62.28	74.22	109.26	103.12	126.67	128.89	128.86	143.10	182.39	192.52	196.45	226.86	243.23	251.59	317.20	408.42	406.11
Angola	0.00	0.00	0.00	0.00	0.33	0.08	0.17	0.00	0.28	0.22	0.00	0.17	0.00	0.20	0.67	0.31	0.22	0.22	0.10	0.00	0.00	0.65	0.15	2.22	0.65
Benin	0.00	0.00	0.00	0.00	0.00	0.00	0.38	1.00	5.63	1.13	0.50	1.75	1.81	1.17	0.44	0.43	0.45	0.67	0.00	0.17	2.96	2.77	1.42	7.25	2.37
Botswana	0.88	6.33	3.06	6.43	7.08	9.00	11.20	9.00	17.71	12.11	13.95	9.35	9.02	7.43	4.75	7.24	10.51	5.85	8.79	4.57	9.45	7.89	6.14	2.45	12.67
Burkina Faso	1.17	0.25	0.50	0.65	0.00	0.00	2.00	0.00	4.60	0.00	0.33	3.37	2.07	2.75	1.68	2.88	4.05	2.64	1.31	2.11	3.59	4.12	3.78	1.09	3.19
Burundi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.67	0.25	0.59	0.00	0.00	0.80	0.13	0.00	0.08	0.14	0.00
Cabo Verde	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
Cameroon	3.93	1.12	4.08	2.70	3.37	4.75	6.72	5.89	7.45	9.92	12.70	15.61	14.80	12.20	12.77	17.90	13.56	14.92	13.49	16.11	17.89	17.03	20.32	30.89	38.84
Central African Republic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.25
Chad	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.10	0.20	0.63
Comoros	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.13	0.29	0.00
Congo, Democratic Republic of the	0.00	0.41	0.00	0.25	0.00	0.00	0.13	1.73	0.00	1.20	0.90	0.00	0.46	0.30	1.19	0.70	0.18	1.93	1.67	1.56	4.53	1.54	2.77	0.57	1.26
Congo, Republic of the	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.25	0.00	0.00	0.50	0.18	0.00	0.00	0.75	0.00	0.00	0.80
Côte d'Ivoire	0.00	0.00	3.00	3.25	2.96	3.35	5.16	1.13	4.36	5.57	3.37	8.44	5.02	7.16	6.48	5.94	7.13	3.67	3.88	4.17	8.82	3.86	6.13	4.74	6.72
Djibouti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.20	0.33	0.65	1.13	0.00	1.00	0.19	0.00	0.07	0.18	0.00	0.17	0.51
Egypt	497.05	508.43	512.55	471.43	519.82	523.50	602.95	627.77	610.46	621.13	685.91	722.59	719.14	699.44	774.01	726.47	765.10	889.84	915.83	1,026.41	1,128.13	1,335.91	1,471.17	1,678.38	2,263.93
Equatorial Guinea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Eritrea	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.50	0.00	0.25	0.00	0.00	0.35	0.00	0.00	0.31	0.67	0.00	1.29
Eswatini	0.00	0.08	1.00	0.10	0.00	0.00	0.17	0.14	0.00	2.00	0.00	0.00	1.00	1.00	0.20	0.25	0.20	1.33	0.17	0.25	0.50	0.00	0.00	0.17	0.25
Ethiopia	14.10	9.85	9.77	6.25	7.89	6.33	5.94	4.82	2.76	4.97	8.16	6.68	7.52	5.93	8.69	12.67	18.44	18.59	15.22	22.11	20.87	34.69	33.33	47.85	98.42
Gabon	0.13	0.00	0.13	0.51	0.50	0.00	0.00	0.00	0.20	0.41	0.43	0.00	0.00	0.50	0.00	0.50	0.00	0.46	0.48	0.30	1.75	1.12	1.07	1.67	2.56
Gambia, The	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.08	0.00	0.00	0.12	0.00	0.00	0.10	0.00
Ghana	1.44	1.33	3.18	3.26	2.25	4.00	1.50	5.42	2.17	5.39	6.10	5.83	3.42	8.22	4.44	8.28	7.65	9.84	9.07	5.79	11.92	9.79	16.36	22.70	38.98
Guinea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	0.00	0.14	0.00	0.49	0.20	0.00	0.00	0.50	0.21	0.29	0.71	0.00	1.00	0.00	0.00	0.00
Guinea-Bissau	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00
Kenya	8.63	2.51	5.29	3.58	6.40	9.05	6.73	9.55	6.54	6.48	1.78	5.72	3.22	10.74	5.21	11.70	15.59	7.59	2.69	2.45	15.59	11.46	15.05	15.31	29.40
Lesotho	1.00	0.50	0.00	0.00	0.00	0.25	1.00	0.00	1.10	0.00	0.00	1.25	0.25	0.00	0.00	0.33	0.00	0.00	1.00	0.33	2.00	2.17	0.50	0.17	0.17

Table SPBS-6

## S&amp;E articles in chemistry, fractional count, by region, country, or economy: 1996–2020

(Number)

Region, country, or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Liberia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	
Libya	0.75	2.17	2.13	2.29	1.83	2.50	5.53	2.98	4.32	6.13	10.80	20.43	6.43	16.06	18.76	13.78	9.44	13.41	8.72	4.96	7.87	6.25	5.44	8.62	11.13	
Madagascar	0.50	1.25	0.25	0.43	0.82	1.13	0.49	0.29	0.75	1.33	0.63	0.33	0.46	2.19	1.25	0.21	0.82	1.74	0.97	0.81	1.11	0.81	1.52	0.32	0.24	
Malawi	0.17	0.00	0.10	0.08	0.07	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.08	0.58	0.74	0.00	0.12	0.00	0.13	0.17	0.25	0.26	0.55	0.35
Mali	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14	0.20	0.49	0.00	0.25	0.23	0.46	0.13	0.18	0.34	1.12	0.14	0.41	0.10	0.37	0.50	0.48	
Mauritania	0.00	0.00	0.00	0.00	0.00	0.50	0.87	0.53	0.71	1.10	0.20	0.87	1.48	1.74	0.00	0.62	0.20	0.20	0.20	0.00	0.39	1.39	0.97	0.64	1.52	
Mauritius	1.00	0.50	1.00	3.17	7.00	4.07	2.92	5.38	5.92	7.18	1.00	5.35	5.35	5.33	5.70	2.34	6.55	6.47	5.68	8.63	6.49	10.28	8.34	8.36	6.64	
Morocco	53.22	47.69	59.09	75.51	92.41	94.74	89.33	81.61	82.23	75.92	76.60	95.07	85.98	72.18	139.03	161.17	115.53	127.84	112.51	121.68	105.75	126.35	189.46	255.34	362.85	
Mozambique	0.00	0.17	1.00	0.00	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.06	0.75	0.59	0.87	0.60	1.84	1.93	
Namibia	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.25	0.17	0.29	0.33	0.00	0.00	0.00	0.33	0.00	0.00	0.13	0.57	1.12	0.42	1.15	0.25	2.29	5.77	
Niger	0.25	0.00	0.00	0.00	0.17	0.00	0.00	0.00	1.33	0.00	0.00	1.47	0.00	0.00	2.00	0.33	0.08	0.00	0.24	0.00	0.92	0.20	0.00	2.18	0.25	
Nigeria	55.90	35.88	27.28	35.80	30.90	21.98	30.25	24.50	34.79	31.96	38.83	47.75	38.28	62.53	63.21	44.50	42.97	50.73	56.40	73.66	85.65	100.76	105.54	169.03	280.53	
Rwanda	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.31	0.75	0.06	1.20	0.80	1.14	0.76	4.12	
São Tomé and Príncipe	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Senegal	2.81	4.30	1.63	6.05	2.58	3.82	3.93	5.88	5.33	6.55	4.92	9.97	7.80	10.84	7.90	9.23	16.66	14.28	10.95	11.56	12.69	8.07	9.70	11.36	12.45	
Seychelles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.08	0.00	
Sierra Leone	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.13	0.00	0.00	
Somalia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	
South Africa	181.29	205.53	182.99	222.04	178.24	191.04	226.53	236.98	271.07	252.69	327.19	348.11	288.63	347.05	376.26	536.28	554.27	527.85	487.79	595.99	624.43	577.53	597.17	652.15	840.68	
South Sudan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.13	0.00	
Sudan	0.50	0.75	2.83	0.78	2.00	0.08	0.90	3.03	0.45	1.46	0.78	2.43	1.77	7.28	5.50	10.66	11.77	9.16	9.76	10.48	6.30	6.42	9.82	10.18	14.02	
Tanzania	2.25	0.83	0.00	1.50	0.33	0.00	2.17	3.87	3.50	3.43	2.35	2.33	0.67	2.49	0.67	5.87	5.30	5.86	3.67	3.55	8.74	3.70	6.78	2.02	8.07	
Togo	0.00	0.00	0.75	2.14	0.00	1.00	0.20	0.60	1.34	0.00	0.00	1.00	1.00	0.00	0.00	0.08	0.00	0.00	0.35	0.00	0.17	0.40	0.51	0.58	0.25	
Tunisia	35.96	41.88	47.95	57.32	72.70	54.19	67.38	79.90	93.62	95.92	110.75	123.98	125.28	115.73	143.32	141.89	162.11	214.73	205.28	261.92	303.32	356.94	298.35	337.00	318.08	
Uganda	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.67	0.25	0.00	0.61	0.80	1.29	1.75	0.08	0.33	0.50	0.82	2.52	2.66	1.05	3.83	2.53	3.03	
Zambia	0.50	1.00	1.67	2.00	0.33	0.00	0.00	0.00	1.00	0.50	1.00	0.50	0.00	1.17	0.50	0.00	0.00	0.90	0.00	0.23	0.08	0.10	0.73	0.32	1.21	
Zimbabwe	0.17	3.03	4.53	3.92	2.48	3.71	0.00	2.17	0.00	0.63	2.79	1.07	1.10	0.50	1.00	0.00	1.00	2.08	1.69	5.47	3.98	4.16	9.16	7.46	6.95	
Asia	18,065.05	18,487.31	19,098.73	20,443.23	20,988.98	22,653.26	23,841.84	25,832.42	29,003.42	36,989.14	40,861.36	40,517.11	41,819.70	45,686.25	46,136.47	51,307.72	55,070.43	58,738.72	64,972.53	69,372.02	69,962.88	72,442.61	79,318.87	85,568.16	90,033.04	
Afghanistan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.83	0.00	0.33	0.00	0.00	0.21	0.29	0.35	1.53	
Bangladesh	28.12	23.55	18.77	35.00	16.11	28.84	32.29	36.91	30.23	41.79	36.07	42.76	36.23	43.04	57.92	62.82	74.21	63.94	61.13	81.45	73.30	83.75	99.86	113.59	200.42	
Bhutan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.07	0.21	0.25	0.00	0.00	0.00	0.65	0.25	0.00	0.00	0.00	0.00	0.00	
Brunei	1.99	0.60	2.17	0.93	1.75	3.07	1.56	1.88	4.30	1.45	2.05	0.87	1.88	0.50	2.59	5.02	7.61	4.23	7.59	9.26	9.81	4.99	12.09	12.50	14.03	
Burma	0.58	1.58	0.25	1.00	0.25	0.11	0.00	0.67	1.92	1.53	0.45	1.11	0.10	1.30	0.00	0.00	0.00	0.00	0.00	0.88	0.79	1.07	2.02	3.01	4.46	
Cambodia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.65	0.93	0.13	0.00	0.00	0.14	0.00	0.64	0.67	0.42	0.00	1.18	
China	4,709.22	5,133.54	5,229.99	6,055.19	6,679.10	7,832.13	8,427.46	9,444.34	12,228.40	15,370.87	17,487.58	20,267.73	21,155.34	23,551.53	23,557.60	26,766.40	29,098.80	32,325.54	37,241.85	40,477.32	41,651.19	43,368.52	48,630.10	54,389.44	55,614.14	
India	2,867.47	2,625.02	2,691.54	2,857.19	2,822.42	3,143.58	3,544.26	3,920.22	4,194.01	4,394.63	5,235.60	6,042.79	5,938.13	6,414.89	6,670.62	7,590.97	7,984.69	8,641.00	9,750.86	10,033.08	10,090.08	10,548.12	10,797.13	10,769.06	12,221.15	



## Table SPBS-6

## S&amp;E articles in chemistry, fractional count, by region, country, or economy: 1996–2020

(Number)

Region, country, or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Tonga	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.00	0.00
Tuvalu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vanuatu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67
Unassigned	229.36	184.79	188.28	236.71	259.65	154.74	149.13	275.28	282.03	309.47	187.56	181.15	174.05	110.14	110.66	77.86	72.06	50.15	49.59	56.17	51.63	94.12	106.79	81.60	121.86

EU = European Union; UK = United Kingdom.

<sup>a</sup> The UK was a part of the EU for data purposes from 1973 to 2019.<sup>b</sup> Beginning in 2020, the UK was no longer a member of the EU.<sup>c</sup> Beginning in 2006, Serbia and Montenegro represented individual countries.<sup>d</sup> Serbia and Montenegro represented a single country for data purposes from 1992 to 2006.<sup>e</sup> West Bank and Gaza Strip are separate entities in this list but are grouped in the World Bank Lending Groups classification list. Here, the economic status of the group is applied to both individual regions.**Note(s):**

Article counts refer to publications from a selection of conference proceedings and peer-reviewed journals in S&E fields 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) of the author(s) listed in the article. Articles are credited on a fractional count basis (i.e., for articles produced by authors from different countries, each country receives fractional credit on the basis of the proportion of its participating authors). Data are not directly comparable to *Science and Engineering Indicators 2020*; see the Technical Appendix for information on data filters. The sum of the fractional count for regions, countries, and 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):**

National Center for Science and Engineering Statistics; Science-Metrix; Elsevier, Scopus abstract and citation database, accessed May 2021.

*Science and Engineering Indicators*