

Table SPBS-44

## Relative citation index in chemistry, by selected country or economy pair: 2018

(Index)

Citing country or economy	Canada	Mexico	United States	Argentina	Brazil	Chile	Austria	Belgium	Czechia	Denmark	Finland	France	Germany	Greece	Ireland	Italy	Netherlands	Poland	Portugal	Spain	Sweden	United Kingdom	Norway	Russia	Switzerland	Turkey	Iran	Israel	Saudi Arabia	Egypt	South Africa	China	India	Japan	Malaysia	Pakistan	Singapore	South Korea	Taiwan	Thailand	Australia	New Zealand	
Canada	13.27	0.65	1.65	0.40	0.65	0.42	0.89	1.19	0.52	1.10	1.44	1.02	1.21	0.80	0.94	0.89	1.38	0.39	0.92	1.07	1.15	1.50	1.22	0.16	1.55	0.36	0.64	1.62	0.74	0.31	0.62	0.69	0.40	0.58	0.46	0.42	1.77	0.75	0.64	0.54	1.30	1.59	
Mexico	1.08	26.42	0.92	1.49	1.37	3.14	0.90	1.08	0.81	1.42	0.91	1.02	0.75	1.35	2.23	1.48	0.98	0.90	1.51	1.85	0.88	1.05	0.67	0.32	0.72	0.87	1.10	0.86	1.10	0.75	1.37	0.68	0.94	0.51	1.01	1.60	1.30	0.69	0.84	0.95	1.02	1.11	
United States	1.17	0.34	4.44	0.40	0.36	0.30	1.01	1.14	0.53	1.37	0.90	0.90	1.16	0.69	0.91	0.79	1.69	0.33	0.59	0.80	1.43	1.50	0.90	0.17	1.94	0.24	0.24	1.43	0.81	0.17	0.49	0.56	0.32	0.61	0.21	0.24	1.67	0.62	0.46	0.30	1.32	0.85	
Argentina	0.96	0.96	0.86	51.91	2.02	2.56	1.18	0.85	1.04	1.27	0.63	1.36	0.97	1.46	1.12	1.40	1.37	0.94	1.86	2.23	0.80	0.85	0.81	0.30	1.13	0.69	0.98	0.85	0.80	0.79	1.44	0.64	0.82	0.47	0.80	1.08	0.94	0.63	0.43	0.86	1.31	0.96	
Brazil	0.86	1.31	0.72	2.16	14.03	1.67	0.81	0.95	1.01	1.22	0.97	0.86	0.60	1.23	1.12	1.24	0.95	0.87	2.27	1.59	0.80	1.03	0.88	0.29	0.58	0.97	1.14	0.65	1.03	0.88	1.35	0.58	0.81	0.30	1.16	1.42	0.76	0.66	0.67	1.12	0.97	1.04	
Chile	0.80	2.05	0.95	2.40	1.60	80.58	0.53	1.14	0.97	1.13	2.65	1.17	0.72	1.75	0.72	1.35	1.04	0.80	2.23	2.23	0.96	1.30	1.01	0.29	0.44	1.12	0.85	0.42	1.36	0.66	1.14	0.59	0.93	0.41	0.48	1.31	0.80	0.81	0.84	0.92	1.02	1.50	
United Kingdom	1.11	0.52	1.68	0.54	0.54	0.35	1.75	1.64	0.67	1.51	1.11	1.22	1.59	0.88	1.73	1.19	2.16	0.41	1.14	1.19	1.72	9.38	1.30	0.20	2.23	0.33	0.29	1.41	0.68	0.22	0.74	0.54	0.37	0.65	0.38	0.48	1.49	0.57	0.50	0.44	1.79	1.79	
Austria	0.95	0.49	1.36	1.21	0.62	0.46	47.79	2.10	1.29	1.73	2.10	1.45	2.19	1.01	1.97	1.38	2.82	0.56	1.32	1.24	1.76	1.93	1.82	0.20	2.58	0.26	0.29	2.05	0.33	0.24	0.89	0.43	0.30	0.54	0.19	0.50	1.42	0.57	0.46	0.40	1.23	0.99	
Belgium	1.06	0.34	1.45	0.98	0.61	0.23	2.12	34.49	0.88	1.66	1.35	1.74	1.57	0.91	1.35	1.48	4.11	0.58	1.32	1.27	1.44	1.69	0.89	0.24	2.24	0.40	0.30	0.99	1.03	0.18	0.86	0.54	0.39	0.63	0.35	0.20	1.45	0.53	0.41	0.46	1.58	0.91	
Czechia	0.96	0.79	0.94	0.45	0.89	0.79	1.85	1.77	32.88	1.39	1.30	1.13	1.17	1.15	1.28	1.45	1.51	1.16	1.12	1.67	1.57	1.46	1.61	0.36	1.65	0.71	0.66	1.09	0.58	0.55	1.05	0.53	0.49	0.47	0.63	0.70	1.74	0.64	0.36	0.60	1.30	1.19	
Denmark	1.20	0.79	1.81	0.59	0.50	0.19	2.18	1.73	0.83	56.47	1.19	1.30	1.83	1.00	1.24	0.94	2.89	0.45	1.12	1.14	3.57	1.83	2.23	0.17	2.92	0.17	0.35	2.06	0.66	0.16	1.14	0.46	0.36	0.55	0.27	0.54	1.76	0.56	0.37	0.42	1.67	0.97	
Finland	1.40	0.85	1.25	0.76	0.76	0.97	1.87	2.07	0.73	2.04	66.76	0.90	1.29	1.01	0.93	1.31	2.14	0.78	0.89	1.43	5.74	1.77	3.28	0.38	1.73	0.29	0.45	0.84	0.70	0.43	0.64	0.58	0.37	0.55	0.53	0.43	1.22	0.68	0.61	0.35	1.60	0.58	
France	1.13	0.53	1.37	0.70	0.54	0.71	1.48	2.29	0.87	1.49	1.23	9.62	1.59	0.91	1.46	1.28	1.98	0.57	1.31	1.35	1.63	1.66	1.31	0.34	2.22	0.36	0.38	1.62	0.71	0.26	0.48	0.54	0.44	0.69	0.32	0.32	1.24	0.54	0.45	0.34	1.31	1.06	
Germany	1.09	0.35	1.45	0.59	0.34	0.28	2.15	1.45	0.78	1.72	1.29	1.17	7.83	0.65	0.96	0.91	2.05	0.40	0.68	1.19	1.68	1.73	0.98	0.29	2.51	0.19	0.21	1.75	0.72	0.19	0.56	0.46	0.31	0.72	0.13	0.21	1.64	0.43	0.39	0.24	1.18	1.15	
Greece	0.81	0.82	0.94	0.91	1.05	1.03	1.51	1.56	0.75	1.20	0.71	1.18	0.86	58.17	0.59	2.06	1.78	1.03	2.96	2.06	1.17	1.44	1.19	0.24	1.61	0.59	1.02	0.71	0.86	0.40	1.11	0.60	0.57	0.44	0.76	0.78	0.78	1.32	0.71	0.81	0.85	1.26	1.11
Ireland	1.04	0.35	1.25	0.58	0.70	0.46	1.88	1.93	0.84	1.97	1.43	1.16	1.18	0.55	69.88	1.50	1.84	0.77	1.31	1.76	1.39	2.45	0.88	0.17	1.62	0.52	0.50	1.73	0.77	0.32	1.40	0.61	0.54	0.48	0.65	0.35	1.73	0.74	0.53	0.39	1.83	2.35	
Italy	0.94	0.70	1.00	0.93	0.81	0.81	1.41	1.54	0.92	1.39	1.39	1.28	1.09	1.55	1.44	13.94	1.74	0.75	1.85	1.79	1.27	1.49	1.04	0.25	2.03	0.49	0.48	1.31	0.76	0.38	0.85	0.48	0.49	0.46	0.42	0.54	1.23	0.64	0.55	0.61	1.15	1.09	
Netherlands	1.20	0.34	1.88	0.63	0.40	0.42	2.26	3.19	0.67	2.27	1.42	1.28	1.77	1.07	1.25	1.21	30.66	0.39	1.05	1.27	1.46	2.17	1.69	0.21	3.39	0.20	0.21	0.83	0.76	0.21	0.99	0.40	0.27	0.68	0.22	0.16	1.89	0.57	0.32	0.29	1.32	1.00	
Poland	0.91	0.75	0.81	0.73	0.97	1.08	1.25	1.07	1.37	1.16	1.03	1.12	0.84	1.75	1.29	1.39	0.90	15.71	1.82	1.29	0.97	1.15	1.24	0.30	1.23	0.69	0.78	1.00	0.60	0.56	0.83	0.54	0.60	0.51	0.63	0.82	1.07	0.62	0.64	0.79	1.15	1.13	
Portugal	0.74	1.01	0.85	1.43	1.71	1.25	1.49	1.18	0.73	1.12	1.30	1.16	0.74	2.29	1.73	1.85	1.40	1.13	33.25	2.26	1.18	1.37	1.33	0.30	0.82	0.74	0.88	1.03	0.74	0.45	1.41	0.61	0.70	0.42	0.79	0.91	1.11	0.89	0.86	0.71	1.17	1.83	
Spain	0.90	1.04	1.02	1.31	0.93	1.49	1.24	1.43	0.82	1.45	1.20	1.26	1.15	1.36	1.42	1.67	1.75	0.71	2.04	10.34	1.28	1.63	1.10	0.24	1.72	0.49	0.70	1.19	0.81	0.27	1.00	0.57	0.50	0.54	0.49	0.49	1.29	0.61	0.60	0.77	1.23	0.96	
Sweden	0.96	0.52	1.81	0.39	0.42	0.32	1.96	1.63	0.73	3.30	3.26	1.27	1.64	1.15	1.03	1.09	2.54	0.48	0.83	1.22	33.95	1.86	1.89	0.18	2.97	0.25	0.30	1.32	0.69	0.46	0.63	0.56	0.31	0.56	0.37	0.29	0.88	0.63	0.45	0.40	1.51	0.60	
Norway	1.43	0.41	1.33	1.14	0.79	0.84	1.71	2.25	0.87	3.88	3.47	1.21	1.16	1.54	1.09	1.72	2.06	0.55	1.07	1.75	4.63	1.83	95.05	0.32	3.12	0.44	0.78	1.61	0.96	0.42	0.82	0.47	0.34	0.61	0.67	0.66	2.13	0.76	0.55	0.98	1.40	1.06	
Russia	0.64	0.71	0.77	0.55	0.50	0.65	0.68	0.96	0.85	0.66	1.28	0.89	0.96	0.76	0.98	0.93	0.93	0.64	0.98	0.95	0.84	0.92	0.86	11.20	0.96	0.47	0.59	0.61	0.63	0.45	0.65	0.52	0.55	0.52	0.32	0.56	0.83	0.50	0.39	0.44	0.81	1.00	
Switzerland	1.11	0.21	1.92	0.40	0.25	0.24	2.19	2.10	0.68	1.82	1.33	1.48	1.87	0.65	1.19	1.14	2.55	0.45	0.48	1.25	2.69	1.93	1.50	0.20	29.46	0.19	0.14	1.55	0.68	0.11	0.57	0.44	0.22	0.64	0.11	0.12	1.63	0.46	0.32	0.24	1.34	0.95	
Turkey	0.56	0.75	0.45	0.83	1.18	1.28	0.60	0.57	0.58	0.73	0.39	0.56	0.44	0.91	0.61	0.98	0.49	0.90	1.43	1.00	0.49	0.68	0.42	0.29	0.48	21.17	1.98	0.41	2.04	1.56	1.43	0.66	1.08	0.33	1.07	2.06	0.81	0.79	0.77	1.11	0.79	0.81	
Iran	0.65	0.77	0.43	0.80	0.82	0.80	0.35	0.49	0.49	0.54	0.57	0.49	0.32	0.84	0.53	0.69	0.44	0.57	1.03	0.86	0.41	0.50	0.56	0.17	0.41	1.34	12.38	0.52	1.33	0.97	1.07	0.74	1.00	0.24	0.98	1.30	0.88	0.69	0.59	0.92	0.72	0.55	
Israel	1.01	0.27	1.69	0.16	0.28	0.46	1.72	1.10	0.70	1.26	0.84	1.28	1.54	0.75	0.94	1.24	1.98	0.43	0.73	1.06	1.09	1.52	0.48	0.18	2.46	0.67	0.15	73.02	0.64	0.14	0.47	0.54	0.47	0.55	0.30	0.11	1.99	0.69	0.38	0.13	1.42	0.78	
Saudi Arabia	0.52	1.00	0.76	0.74	0.68	0.78	0.64	0.68	0.53	0.65	0.68	0.60	0.67	0.80	0.66	0.79	1.03	0.56	0.80	0.93	0.72	0.92	1.19	0.18	0.86	1.22	1.19	0.86	26.70	5.98	1.52	0.74	1.26	0.34	1.24	3.35	1.24	0.84	0.85	0.89	0.83	1.00	
Egypt	0.38	0.83	0.36	0.77	0.68	0.86	0.54	0.36	0.64	0.38	0.63	0.46	0.36	1.06	0.29	0.87	0.27	0.78	0.64	0.57	0.99	0.51	0.58	0.19	0.37	1.30	1.40	0.57	7.15	38.50	1.01	0.53	1.09	0.25	1.04	2.16	0.62	0.61	0.62	0.62	0.49	0.59	
South Africa	0.93	0.79	0.68	0.98	1.08	1.24	1.19	1.06	0.87	1.29	0.69	0.73	0.65	1.																													

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(Index)

Citing country or economy	Canada	Mexico	United States	Argentina	Brazil	Chile	Austria	Belgium	Czechia	Denmark	Finland	France	Germany	Greece	Ireland	Italy	Netherlands	Poland	Portugal	Spain	Sweden	United Kingdom	Norway	Russia	Switzerland	Turkey	Iran	Israel	Saudi Arabia	Egypt	South Africa	China	India	Japan	Malaysia	Pakistan	Singapore	South Korea	Taiwan	Thailand	Australia	New Zealand
Singapore	0.95	0.31	1.50	0.38	0.31	0.26	0.94	0.95	0.41	1.08	0.70	0.68	1.08	0.54	0.89	0.58	1.26	0.24	0.58	0.89	1.00	1.20	0.48	0.08	1.51	0.20	0.35	1.31	1.26	0.15	0.27	1.05	0.39	0.75	0.33	0.34	31.70	0.93	0.73	0.36	1.66	0.85
South Korea	0.75	0.44	1.12	0.40	0.43	0.29	0.68	0.83	0.46	0.89	0.63	0.62	0.72	0.77	0.69	0.70	0.85	0.37	0.69	0.81	0.90	0.97	0.77	0.12	1.09	0.47	0.65	0.87	1.20	0.33	0.58	0.92	0.65	0.59	0.51	0.73	2.27	7.35	0.77	0.50	1.20	0.68
Taiwan	0.88	0.72	0.98	0.42	0.59	0.31	0.58	0.58	0.50	0.56	0.70	0.66	0.64	0.78	0.78	0.78	0.71	0.36	0.74	0.89	0.83	0.87	0.50	0.15	1.08	0.51	0.77	0.86	1.44	0.34	0.65	0.99	0.77	0.62	0.61	0.73	1.94	1.21	15.81	0.80	1.01	1.20
Thailand	0.58	1.19	0.69	0.96	1.09	1.23	0.74	0.79	0.63	0.58	0.97	0.63	0.53	1.33	0.61	0.91	1.13	0.75	0.97	1.07	0.95	1.04	1.10	0.18	0.66	0.96	1.38	0.73	1.22	0.81	1.70	0.90	1.00	0.61	1.88	1.14	1.23	1.02	1.26	28.98	1.02	1.24
Australia	1.05	0.46	1.43	0.65	0.51	0.52	0.89	1.08	0.54	1.54	1.17	0.85	1.13	0.74	1.28	0.83	1.30	0.40	0.74	1.03	1.10	1.53	1.05	0.14	1.51	0.44	0.48	1.37	1.02	0.24	0.70	0.83	0.42	0.58	0.56	0.53	2.62	0.86	0.60	0.38	16.60	2.45
New Zealand	1.14	0.57	1.30	1.28	0.79	1.16	1.98	1.03	0.84	1.43	2.25	0.82	1.53	0.54	2.25	0.75	1.90	0.64	0.83	1.13	0.90	2.28	1.88	0.20	2.07	0.26	0.34	1.21	0.71	0.38	1.35	0.60	0.50	0.91	0.33	0.58	1.44	0.68	0.55	0.39	3.73	94.92

**Note(s):**

Citations 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 country or economy on the basis of the institutional address(es) listed in the article. Articles are credited on a fractional count basis (i.e., for articles with collaborating institutions from multiple countries or economies, each country or economy receives fractional credit on the basis of the proportion of its participating institutions).

Citation counts are based on all citations made to articles in their publication year and in the following two years (i.e., 3-year citation window; scores in 2018 are based on citations to articles published in 2018 that were made in articles published in 2018–20). The relative citation index normalizes cross-national citation data for variations in relative size of publication output. It is computed by dividing the share of the citing country's outgoing citations going to the cited country and dividing this by the share of publications attributed to the cited country. For single-discipline data, the discipline is that of the cited articles. Cells in which the region, country, or economy collaborates at or above the world average for that year are shaded green.

**Source(s):**

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

*Science and Engineering Indicators*