

TABLE S5A-44

Share of S&E publications in the top 1% most-cited articles in materials science, for the 15 largest publication-producing regions, countries, or economies: 1996–2016

(Percent)

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
World	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
China	0.20	0.32	0.18	0.31	0.48	0.21	0.54	0.53	0.41	0.37	0.52	0.62	0.66	0.57	0.62	0.67	0.81	0.82	0.89	1.04	1.16
United States	2.19	1.98	2.18	1.93	1.98	2.19	2.13	2.23	2.30	2.12	2.31	2.35	2.01	2.34	2.53	2.59	2.47	2.53	2.80	2.52	2.67
India	0.89	0.67	0.60	0.94	0.70	0.68	0.93	0.70	0.63	1.07	1.11	0.78	1.08	1.13	1.10	0.88	0.96	0.64	0.54	0.56	0.74
Germany	0.91	0.70	1.37	1.17	1.22	0.98	1.13	0.95	1.07	1.47	1.14	1.20	1.15	1.97	2.28	1.92	1.62	1.62	2.00	1.64	1.96
Japan	0.89	0.99	1.04	0.53	0.67	1.00	0.94	0.61	0.80	0.93	1.06	0.67	0.87	0.95	0.74	1.01	0.95	0.90	0.76	0.87	0.82
United Kingdom	1.53	2.16	1.48	1.66	1.53	1.86	1.34	1.41	2.22	1.92	1.93	1.71	1.72	1.64	1.84	1.91	1.80	2.41	1.89	2.22	2.55
Russia	0.36	0.23	0.14	0.11	0.54	0.27	0.32	0.23	0.23	0.10	0.36	0.22	0.12	0.39	0.24	0.10	0.29	0.29	0.24	0.16	0.19
Italy	0.21	0.35	1.08	0.39	0.98	1.19	1.65	1.40	1.00	1.58	1.81	0.89	1.18	1.01	0.93	1.35	1.40	1.31	1.44	1.49	2.53
South Korea	0.50	0.49	0.61	0.42	0.87	0.70	1.04	0.82	0.49	1.11	0.82	0.48	1.25	1.32	1.32	1.36	1.31	1.83	1.69	2.40	1.58
France	1.23	1.18	0.83	1.59	1.21	1.43	1.17	1.17	1.11	1.36	1.51	1.57	1.76	1.32	1.30	1.39	1.41	1.58	0.89	0.74	1.23
Brazil	1.35	0.00	0.44	0.29	0.34	0.23	0.47	0.24	0.84	0.16	0.54	0.70	0.83	0.49	0.34	0.59	0.08	0.68	0.13	0.07	0.30
Canada	2.02	1.66	0.83	2.63	1.50	2.09	3.19	1.62	1.72	1.41	1.51	1.71	1.49	1.55	1.64	1.58	1.59	0.42	1.36	1.07	0.78
Spain	0.82	0.19	0.51	0.82	0.80	0.51	0.80	1.74	1.10	1.32	1.77	1.88	1.37	1.03	0.62	1.51	1.66	1.53	1.24	0.99	0.96
Australia	1.56	2.78	2.11	1.97	2.44	2.29	1.35	1.32	2.51	1.89	1.54	2.02	2.90	2.71	2.81	2.61	2.90	2.82	2.37	2.64	3.78
Iran	0.00	0.00	ne	0.00	0.00	1.39	0.00	2.31	0.98	0.53	0.73	1.43	0.86	1.37	1.54	1.36	0.68	0.83	0.62	1.19	1.67
EU (all members)	1.00	0.98	1.13	1.17	1.12	1.14	1.12	1.21	1.15	1.34	1.39	1.30	1.20	1.24	1.32	1.28	1.20	1.22	1.13	1.16	1.29

ne = not eligible; there are fewer than 30 articles available to make a calculation.

EU = European Union.

Note(s)

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. Citation data by field are only presented for the 15 largest publication-producing countries because of high year-to-year variation for countries, regions, or economies with small annual publication output (Table 5a-1). Citation data are based on all citations made to articles in their publication year and all following years and are normalized by subfield and publication year to allow for comparisons across subfields and over time, resulting in the world-level standing at 1% for each subfield and year. A minimum 2-year citation window is needed for a relative citation (RC) score to be computed. This results in scores regarding highly cited articles not being computed after 2016 because the citation window for more recent years is not yet complete. The share of articles in the top 1% is computed as follows: $S_x = HCA_x/A_x$, where S_x is the share of output from country x in the top 1% most-cited articles; HCA_x is the number of articles from country x that are among the top 1% of most-cited articles (using full counting, with the exception of papers at the limit of the top 1%, which are fractioned so the world average can stand at 1%); and A_x is the total number of articles from country x with an RC score, which excludes articles released after 2016 and unclassified publications.

Source(s)

National Center for Science and Engineering Statistics, National Science Foundation; Science-Metrix; Elsevier, Scopus abstract and citation database, accessed June 2019.