

Table 5-30
Patent citations to S&E articles, by selected patent technology area and article field: 2011–14

Technology/field	Citations (<i>n</i>)	Percent
Alternative energy	27,858	100.0
Engineering	8,608	30.9
Chemistry	7,236	26.0
Physics	6,017	21.6
Biological sciences	4,423	15.9
Geosciences	722	2.6
Agricultural sciences	614	2.2
All others	238	0.9
Energy storage	9,049	100.0
Chemistry	4,776	52.8
Engineering	2,536	28.0
Physics	898	9.9
Biological sciences	528	5.8
Geosciences	152	1.7
All others	159	1.8
Pollution mitigation	8,999	100.0
Chemistry	2,971	33.0
Engineering	2,730	30.3
Geosciences	1,556	17.3
Biological sciences	985	10.9
Physics	336	3.7
Medical sciences	224	2.5
Agricultural sciences	156	1.7
All others	41	0.5
Smart grid	4,918	100.0
Engineering	3,318	67.5
Computer sciences	742	15.1
Physics	586	11.9



Technology/field	Citations (<i>n</i>)	Percent
Chemistry	72	1.5
Biological sciences	72	1.5
Medical sciences	34	0.7
Geosciences	30	0.6
Social sciences	29	0.6
All others	35	0.7

NOTES: Article/citation counts are from the set of journals covered by Scopus. Articles are assigned to a sector on the basis of the institutional address(es) listed in the article. Articles/citations are credited on a fractional-count basis (i.e., for articles with collaborating institutions from multiple sectors, each sector receives fractional credit on the basis of the proportion of its participating institutions). Citation counts are based on an 11-year window with a 5-year lag (e.g., citations for 2012 are references in U.S. patents issued in 2012 to articles published in 1997–2007). Detail may not add to total because of rounding.

SOURCES: National Science Foundation, National Center for Science and Engineering Statistics; SRI International; Science-Metrix; LexisNexis and U.S. Patent and Trademark Office patent data; Elsevier, Scopus abstract and citation database (www.scopus.com).

Science and Engineering Indicators 2016