



APPENDIX TABLE 8-23

USPTO patents granted in microstructural and nanotechnology, by region, country, or economy: 2000–16

(Number)

Region, country, or economy	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
World	484	595	696	905	1,032	966	1,134	1,039	1,060	1,145	1,493	1,458	1,410	1,551	1,668	1,457	1,245
North America	246	321	378	516	580	558	626	572	583	582	713	678	663	741	794	694	588
Canada	5	5	2	15	15	14	16	12	17	11	22	22	22	20	24	22	19
Mexico	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0
United States	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0
All others	240	316	376	501	565	545	610	559	565	570	689	656	641	719	769	671	568
Central and South America	0	0	0	0	0	1	0	0	0	0	1	1	2	1	2	1	1
Argentina	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Brazil	0	0	0	0	0	1	0	0	0	0	1	1	1	1	2	1	0
All others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Europe	52	61	76	89	103	103	118	114	112	128	205	210	210	239	248	242	211
EU	45	54	69	78	91	94	105	106	98	120	187	189	195	222	227	224	191
Austria	1	0	0	0	1	2	2	2	3	2	6	5	6	5	2	7	4
Belgium	0	1	2	1	4	1	3	2	3	5	8	10	10	12	8	9	6
Denmark	0	0	1	2	1	2	1	2	3	2	1	1	1	2	2	3	3



Region, country, or economy	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Finland	0	0	1	1	2	2	1	1	0	2	2	4	5	4	2	4	5
France	10	10	12	13	14	15	13	14	13	18	46	42	40	38	46	44	35
Germany	17	21	27	39	37	41	47	48	41	45	64	63	74	82	87	85	68
Hungary	0	0	0	0	0	0	0	0	0	1	0	2	1	0	0	1	1
Ireland	0	1	1	1	1	0	2	0	1	1	2	1	2	4	3	1	1
Italy	1	3	4	2	5	3	7	8	8	5	10	14	7	13	13	16	14
Netherlands	1	6	6	5	5	6	9	11	10	14	20	16	22	25	24	15	20
Spain	1	2	2	1	1	0	0	0	1	1	2	2	1	4	5	5	4
Sweden	5	2	3	4	5	4	2	4	4	5	7	8	10	7	7	9	6
United Kingdom	8	6	10	10	14	16	15	12	10	17	17	15	14	21	25	22	19
All others	0	0	1	0	1	2	2	2	1	1	2	5	2	5	2	4	7
Other Europe	6	7	7	10	12	9	13	8	14	9	18	21	15	17	21	18	20
Former Soviet Union	0	0	0	1	0	0	0	1	0	0	0	1	1	1	1	1	0
Norway	1	1	1	0	2	0	2	0	1	1	1	1	1	0	1	1	0
Russia	2	2	2	2	2	2	2	2	3	2	2	2	2	4	4	3	4
Switzerland	4	4	3	6	7	7	8	5	9	6	14	15	11	11	15	13	14
All others	0	0	0	1	1	0	1	0	1	0	0	1	1	1	1	1	2
Asia	180	195	233	289	337	290	370	334	352	415	557	547	519	545	595	495	423
China	0	0	1	1	3	3	8	7	7	17	23	22	29	47	65	59	58





EU = European Union; USPTO = U.S. Patent and Trademark Office.

**Note(s)**

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Patents are allocated according to patent inventorship information. Patents are fractionally allocated among regions, countries, or economies based on the proportion of residences of all named inventors. The EU includes 28 member countries. China includes Hong Kong. Patents are classified under the World Intellectual Property Organization (WIPO) classification of patents, which classifies International Patent Classification (IPC) codes under 35 technical fields. IPC reformed codes take into account changes that were made to the WIPO classification in 2006 under the eighth version of the classification and were used to prepare these data. However, because PatentsView only provides the original IPC codes as they appeared on patents and not the IPC reformed codes, current Cooperative Patent Classification codes on patents were converted back to the most recent IPC classification to prepare these statistics. Fractional counts of patents were assigned to each technological field on patents to assign the proper weight of a patent to the corresponding technological fields under the classification.

**Source(s)**

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Science-Metrix; PatentsView and USPTO patent data, accessed April 2017.

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