



APPENDIX TABLE 8-17

USPTO patents granted in chemical engineering, 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	3,425	3,452	3,322	3,309	2,977	2,572	2,722	2,459	2,461	2,468	3,416	3,462	3,682	4,008	4,354	4,594	4,741
North America	2,018	1,948	1,843	1,895	1,737	1,493	1,573	1,404	1,366	1,380	1,814	1,863	1,965	2,065	2,206	2,326	2,348
Canada	94	102	87	82	74	58	73	55	52	58	68	80	96	82	109	118	124
Mexico	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Puerto Rico	2	2	4	3	3	1	1	1	0	1	2	3	3	5	4	5	4
United States	1	0	1	0	0	1	0	1	0	1	2	0	1	0	1	1	2
All others	1,921	1,844	1,751	1,811	1,660	1,433	1,499	1,347	1,314	1,321	1,743	1,779	1,864	1,978	2,093	2,203	2,219
Central and South America	13	12	8	6	11	7	7	7	11	7	6	12	14	14	24	17	17
Argentina	3	1	1	2	1	0	1	1	0	1	1	0	1	2	1	1	0
Brazil	6	5	4	3	7	3	3	4	4	4	5	7	9	6	13	9	11
All others	5	6	3	1	3	4	3	3	6	2	1	5	4	6	10	7	5
Europe	852	896	883	833	709	610	681	570	587	558	830	843	903	1,020	1,133	1,136	1,194
EU	779	823	803	768	655	572	632	527	542	505	773	769	816	926	1,023	1,038	1,093
Austria	11	15	14	11	8	9	9	11	7	8	10	10	12	15	22	22	24
Belgium	18	24	16	16	16	15	15	11	15	15	23	26	30	35	33	35	34
Denmark	24	14	14	11	6	9	12	11	6	12	15	18	26	19	17	20	23



Region, country, or economy	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Finland	27	31	26	35	25	17	21	10	16	11	19	25	16	16	23	28	33
France	137	165	164	147	112	99	95	97	79	80	120	117	116	140	162	155	173
Germany	322	330	339	331	270	242	275	210	226	220	316	331	329	394	413	416	429
Hungary	2	0	2	1	1	1	1	1	1	0	2	1	0	3	3	3	2
Ireland	3	1	1	3	4	4	3	1	5	2	3	5	3	9	6	8	10
Italy	49	46	46	33	44	38	43	33	27	30	61	53	49	54	64	53	77
Netherlands	37	37	44	41	41	36	34	27	39	37	42	40	58	60	65	75	69
Spain	11	10	11	10	6	5	9	5	10	5	10	9	15	8	14	18	13
Sweden	38	52	40	42	29	27	37	26	35	23	45	44	49	54	61	53	60
United Kingdom	92	96	83	84	87	67	72	81	72	59	101	83	104	112	129	136	132
All others	9	3	2	3	6	4	4	3	5	2	6	7	9	7	12	16	14
Other Europe	73	73	80	64	55	39	50	44	45	52	57	74	86	94	110	98	101
Former Soviet Union	2	3	2	1	1	1	2	0	2	1	1	0	3	2	1	2	1
Norway	10	14	18	10	13	9	7	12	9	12	11	14	18	17	19	20	20
Russia	11	9	15	12	8	5	10	7	6	7	10	9	14	18	21	13	13
Switzerland	48	45	43	41	32	24	29	23	28	30	32	49	49	54	65	61	62
All others	3	1	2	1	1	0	1	2	1	1	2	2	3	3	3	2	5
Asia	482	547	528	523	471	412	416	434	461	492	708	682	715	805	874	992	1,061
China	14	14	17	11	18	13	24	19	20	28	46	61	73	81	94	123	147





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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