



APPENDIX TABLE 6-67

USPTO patents granted in battery technology, by region, country, or economy: 1998–2016

(Number)

Region, country, or economy	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
World	166	169	204	210	270	256	225	161	161	177	171	240	431	430	471	616	870	1,020	992
North America	70	73	68	73	71	80	55	47	40	39	42	51	78	75	90	126	204	179	204
Canada	9	9	11	3	4	3	4	3	3	2	5	7	4	8	9	5	6	3	2
Mexico	0	0	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	0	0	0	0	0	0	0	0	0
United States	61	64	57	70	67	77	51	44	37	37	37	44	74	66	81	121	198	175	202
Central and South America	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0
Argentina	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
All others	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Europe	13	12	16	12	26	21	15	9	10	8	8	12	26	28	22	30	37	56	57
EU	13	12	16	12	24	21	15	9	8	8	7	9	25	25	18	26	32	50	51
Austria	0	1	0	0	1	1	0	2	0	0	0	1	0	0	0	1	2	2	1
Belgium	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	2	0
Denmark	2	0	0	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1



Region, country, or economy	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
France	3	1	7	2	10	4	3	1	1	2	3	3	10	13	3	8	4	11	13
Germany	3	5	6	3	4	3	5	1	2	4	1	3	9	8	10	11	16	27	26
Hungary	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Italy	4	1	2	1	1	1	1	1	0	0	0	1	2	1	0	2	2	0	2
Netherlands	0	1	0	2	4	3	1	0	0	0	0	0	1	0	0	0	0	0	0
Spain	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	1	0	0
Sweden	0	0	0	1	0	2	0	0	2	1	0	0	1	1	1	1	0	0	1
United Kingdom	0	2	1	1	3	2	3	3	3	2	3	1	2	2	2	3	5	7	6
All others	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1
Other Europe	0	0	0	0	2	0	1	0	1	0	1	3	2	2	5	4	5	6	6
Former Soviet Union	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Russia	0	0	0	0	1	0	0	0	0	0	1	1	2	1	1	3	2	3	0
Switzerland	0	0	0	0	1	0	0	0	1	0	0	1	0	1	3	1	3	3	5
All others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asia	83	83	118	122	172	153	153	104	109	130	119	174	320	324	357	456	629	784	728
China	0	1	2	1	0	0	2	0	1	0	1	4	12	13	23	21	32	41	35
India	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	1	2



Region, country, or economy	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Japan	75	72	104	93	136	123	121	77	74	87	82	97	160	164	196	195	255	295	343
Malaysia	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Singapore	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	3
South Korea	5	8	10	25	35	30	26	26	31	43	36	69	142	142	134	232	334	427	330
Taiwan	3	2	2	3	1	0	2	0	3	0	0	4	6	5	4	7	5	17	14
All others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Middle East	0	0	0	1	1	0	0	0	1	0	0	0	0	2	1	1	0	1	3
Israel	0	0	0	1	1	0	0	0	1	0	0	0	0	2	1	1	0	1	3
All others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Africa	1	1	0	0	0	0	1	0	0	0	1	1	4	1	0	0	0	0	0
South Africa	1	1	0	0	0	0	1	0	0	0	1	1	4	1	0	0	0	0	0
All others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Australia and Oceania	0	0	1	0	1	2	1	1	1	0	1	2	2	1	0	2	0	1	0
Australia	0	0	1	0	1	2	1	0	1	0	1	1	0	1	0	2	0	1	0
New Zealand	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0	0	0	0
Unclassified	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Note(s)



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. Technologies are based on a classification developed by The Patent Board.

Source(s)

Science-Metrix; PatentsView and USPTO patent data.

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