



APPENDIX TABLE 6-68

USPTO patents granted in hydrogen production and storage 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	82	118	109	135	118	167	165	119	166	146	165	173	262	251	252	274	279	275	236
North America	39	56	51	69	60	94	98	65	105	81	104	104	164	141	132	141	143	131	113
Canada	2	6	3	4	3	9	8	6	9	3	2	6	8	5	8	12	13	14	14
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	37	50	48	65	57	86	89	59	96	78	102	98	155	136	124	129	130	118	99
Central and South America	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	3	1	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	0	1	1	0
All others	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2	0	0
Europe	12	18	17	20	18	18	22	23	14	15	26	23	28	39	25	31	56	52	34
EU	12	14	17	20	18	17	20	20	13	12	24	22	26	37	22	28	54	52	29
Austria	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	1	0
Belgium	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Denmark	2	1	2	2	2	0	2	1	0	0	3	2	0	1	0	1	1	1	1
Finland	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0



Region, country, or economy	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
France	1	7	3	6	3	3	1	2	2	3	4	8	7	13	11	7	18	18	5
Germany	5	5	10	8	6	11	12	10	3	6	5	7	13	7	5	10	13	11	4
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	0	1	0	0	2	0	1	1	2	0	1	0	1	1	2	0	1	2	4
Netherlands	3	0	1	0	0	1	2	4	0	0	5	3	1	4	1	5	9	4	3
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0
Sweden	0	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	6	1
United Kingdom	1	0	1	1	2	1	0	1	5	3	4	2	2	8	3	5	8	7	10
All others	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	1
Other Europe	0	3	0	1	0	1	3	3	1	2	2	1	2	2	2	4	2	1	4
Former Soviet Union	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Norway	0	3	0	1	0	1	3	1	1	1	1	0	1	0	0	2	2	0	0
Russia	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	2	0	0	3
Switzerland	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0	0	1	1
All others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asia	30	42	40	45	40	54	43	29	45	48	34	42	68	65	90	98	71	86	77
China	0	0	1	1	0	1	0	0	0	1	1	0	3	0	1	1	1	6	4
India	0	0	0	0	0	1	0	0	1	1	0	0	2	0	0	0	1	2	3



Region, country, or economy	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Japan	28	36	35	40	35	49	42	26	43	36	28	34	39	40	63	69	54	62	54
Malaysia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Singapore	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	2	1	2
South Korea	2	6	4	3	4	2	0	1	0	4	2	6	20	22	23	18	4	9	11
Taiwan	0	0	0	1	0	1	1	1	1	5	3	2	4	3	3	9	8	6	2
All others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Middle East	0	0	0	0	0	0	2	0	1	1	0	2	0	2	3	2	4	2	8
Israel	0	0	0	0	0	0	1	0	1	0	0	2	0	2	1	2	3	1	3
All others	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2	0	1	1	6
Africa	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
South Africa	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
All others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Australia and Oceania	1	2	0	0	0	1	0	2	0	2	2	2	1	3	1	2	2	2	3
Australia	1	2	0	0	0	0	0	2	0	2	2	2	1	3	1	2	1	2	3
New Zealand	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	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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