

# NANO STATISTICS

Nano Science, Technology and Industry Scoreboard

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## Top Ten Countries in Nanotechnology Patents in 2017

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According to StatNano, a total number of 20187 patents have been published in United States Patents and Trademark Office (USPTO) in 2017, among which more than half belongs to the United States. South Korea, Japan, China, and Taiwan are the next countries in this ranking. A number of 4019 nanotechnology patents have been published in European Patents Office (EPO) in 2017.

USPTO and EPO are known as two important patent offices in the world. According to statistical analysis on Orbit Databank, a number of 20187 nanotechnology patents have been published in USPTO in 2017, among which 9145 are granted patents and 11042 are published patent applications. According to the new definition of International Standard Organization (ISO/TS 18110), a patent is related to nanotechnology when it has at least one claim about nanotechnology or it has a code related to nanotechnology according to IPC. By using this definition, a number of 4019 nanotechnology patents have been published in EPO in 2017, which is about one-fifth of the number of nanotechnology patents in USPTO. There are 2386 granted patents and 1633 published patent applications in EPO in the field of nanotechnology.

Table 1 shows top ten countries in the world in number of nanotechnology granted patents published in USPTO and EPO in 2017. The countries have been ranked according to the number of USPTO patents due to the importance and the higher number of patents in this office.

Table 1: Top ten countries in the number of nanotechnology granted patents published in USPTO in 2017

Rank	Country	Granted patents in USPTO	Granted patents in EPO	Growth of USPTO patents compared to 2016 (%)	Growth of EPO patents compared to 2016 (%)
1	<a href="#">USA</a>	4725	669	9.48	15.94
2	<a href="#">South Korea</a>	1044	166	14.22	58.10

3	<a href="#">Japan</a>	733	265	-10.50	40.96
4	<a href="#">China</a>	524	64	25.96	8.47
5	<a href="#">Taiwan</a>	490	15	-4.67	-21.05
6	<a href="#">Germany</a>	378	354	25.58	22.49
7	<a href="#">France</a>	235	236	11.90	13.46
8	<a href="#">UK</a>	144	89	17.07	9.88
9	<a href="#">Netherlands</a>	122	69	-10.29	-2.82
10	<a href="#">Canada</a>	119	29	12.26	31.82

The [United States](#) possesses the first rank by having a share of about 51.7% of all nanotechnology patents in USPTO. [South Korea](#) and [Japan](#) rank second and third, respectively with a great difference with the [United States](#). [South Korea](#) took the second place of [Japan](#) in 2016 with a significant growth in the number of nanotechnology patents. The growth in the number of nanotechnology patents in [South Korea](#) continued in 2017, and due to the negative growth of [Japan](#)'s nanotechnology patents, the difference between the two countries increased. Table 2 lists the number of nanotechnology published patent applications for the top 10 countries. The countries the [United States](#), [South Korea](#), and [Japan](#) rank first to third in this ranking, too.

Table 2: Top ten countries in the number of nanotechnology published patent applications in USPTO in 2017

Rank	Country	Published patent applications in USPTO	Published patent applications in EPO	Growth of USPTO patents compared to 2016 (%)	Growth of EPO patents compared to 2016 (%)
1	<a href="#">USA</a>	5559	310	-1.35	9.93
2	<a href="#">South Korea</a>	1254	246	-5.43	-9.89
3	<a href="#">Japan</a>	766	235	-4.84	-12.31
4	<a href="#">China</a>	694	159	17.43	63.92
5	<a href="#">Taiwan</a>	516	23	-8.83	-8.00
6	<a href="#">Germany</a>	433	159	4.84	-3.64
7	<a href="#">France</a>	280	102	-1.41	10.87
8	<a href="#">UK</a>	226	36	20.86	-23.40
9	<a href="#">Canada</a>	171	15	-12.76	87.50
10	<a href="#">Saudi Arabia</a>	153	6	128.36	-25.00

The interesting point is the 10<sup>th</sup> position of [Saudi Arabia](#) in this ranking, which occurs for the first time. The reason is

the growth of 128% in the number of nanotechnology published patent applications of this country in 2017.

The number of nanotechnology published patent applications in USPTO in 2017 shows a growth of 3.2% in comparison with 2016. This growth is about 12% for the number of nanotechnology published patent applications in EPO in 2017 in comparison with 2016. Figure 1 demonstrates the growth in the number of patents according to the type of patents.

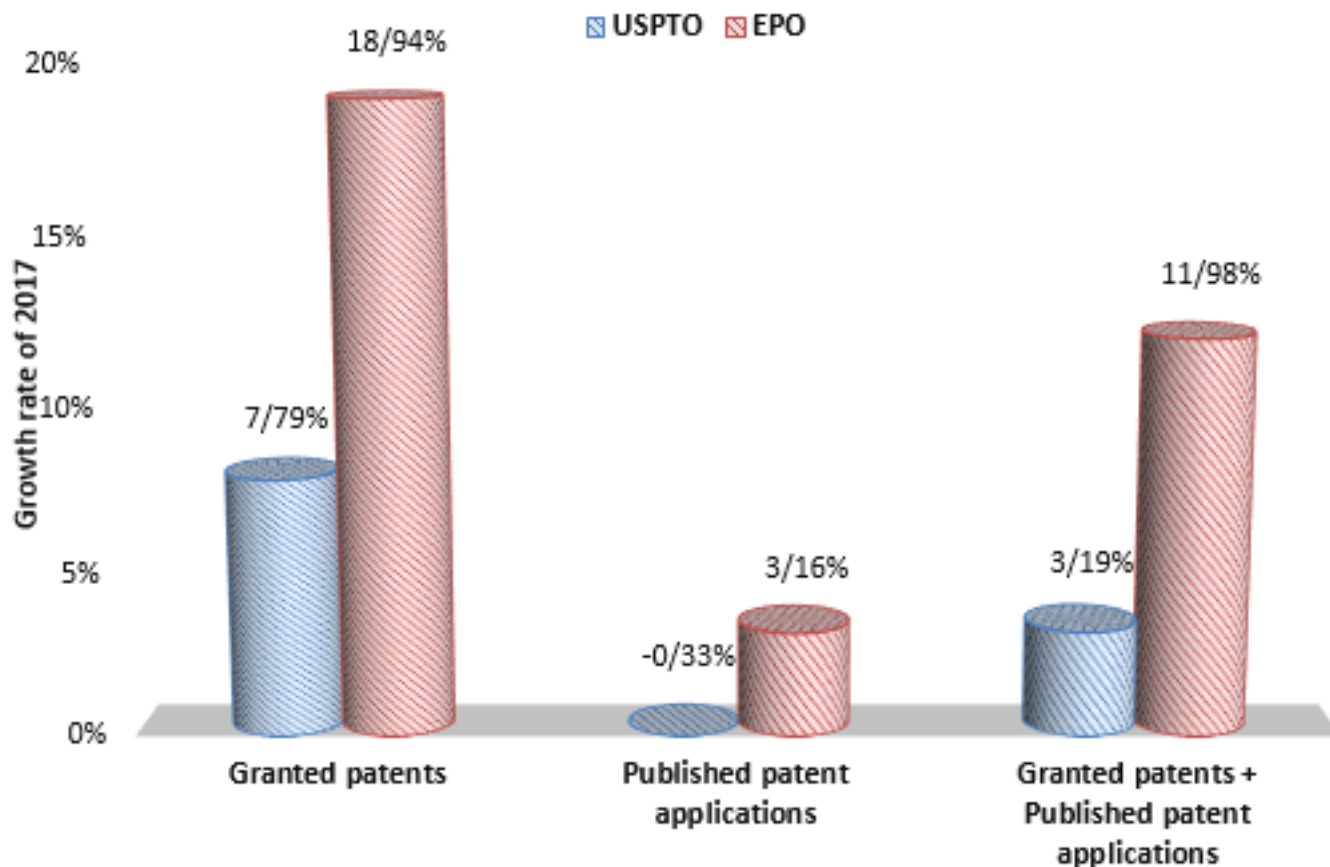


Fig 1: Growth in the number of nanotechnology patents in USPTO and EPO in 2017 compared to 2016

Click [here](#) to see full statistics on nanotechnology patents of various countries.

