
Top 20 Countries in Holding Nanotechnology Patents in 2021

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By the end of 2021, a total of 23,750 nanotechnology-related patents were registered with the US Patent and Trademark Office (USPTO). While nearly half of USPTO patent applications belonged to the United States, China, South Korea, Japan, and Taiwan were the following countries on the list.

According to ISO/TS 18110, the definition of nanotechnology patents is patents that include at least one claim related to nanotechnology or patents classified with an IPC classification code related to nanotechnology such as B82.

Based on a statistical survey conducted using the Orbit Database, in 2021, a total of 23,750 patents were registered with the US Patent Office in the field of nanotechnology, which indicates an approximate 6% growth compared to the previous year. 14,044 account for published patent applications, while 9705 are granted patents.

The [United States](#) owns about 47% of the USPTO nano-patents. Interestingly, in 2021, [China](#) surpassed its regional competitors in the USPTO regarding nanotechnology patents, ranking 2nd ahead of [South Korea](#) and [Japan](#) with 1,600 nano-patents (11.4%).

The table below shows the number of nanotechnology published patent applications issued by the top 20 countries in the USPTO in 2021 and the share of nanotech patents of these countries in their total number of published patents in the USPTO.

Number of nanotechnology published patent applications of the top 20 countries in the USPTO in 2021

Ranking	Country	Number	The share of nano- patents of total USPTO patents
1	USA	6,388	3.5%
2	China	1,599	4.4%
3	South Korea	1,364	4.8%
4	Japan	979	1.6%
5	Taiwan	784	5.4%
6	Germany	427	2.2%
7	Canada	283	4.1%
8	France	269	3.8%
9	UK	266	3.7%
10	Saudi Arabia	244	16.3%
11	Netherlands	178	3.9%
12	Switzerland	144	2.6%
13	Australia	94	4.4%
14	Belgium	84	5.5%
15	Italy	84	2.8%
16	Finland	81	4.4%
17	Singapore	81	3.9%
18	Spain	79	8.0%
19	India	74	4.5%
20	Sweden	70	1.6%

Another noteworthy point regarding this list is the remarkable attention paid to nanotechnology innovation by Asian countries such as [Saudi Arabia](#), [China](#), [South Korea](#) and [Taiwan](#) compared to their American or even European counterparts. About 16% of [Saudi Arabia](#)'s registered patents at the USPTO belong to the field of nanotechnology, and this is while [Iran](#) has the highest share at 33% in this indicator.

Source

[Nanotechnology published patent applications in USPTO](#)