

Nano Science, Technology and Industry Scoreboard

## All You Need to Know about Universities with Most Nanotechnology Patents of 2018 at USPTO

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The University of California topped the list of academic nanotechnology patent holders at the United States Patent and Trademark Office (USPTO) in 2018, as reported by StatNano, which annually releases a list of the top 30 universities having the most nanotechnology patents of the year at the USPTO.

StatNano today published its annual report on the universities with the greatest number of nanotechnology patents at the USPTO, prepared by analyzing the statistical data collected by Orbit Database during 2018. Accordingly, from a total of 19,773 nanotechnology patents filed at this patent office, 3,413 were issued by universities, among which 1,432 were granted patents and 1,981 were published patent applications, altogether comprising 17% of the total nanotechnology patents of the USPTO.

The first place of the list is taken by the University of California holding the most published patent applications of 2018 in the field of nanotechnology. Founded in 1868, this university has been one of the <u>United States</u>' leading public research university systems with 10 campuses all around the US, including UC Berkeley.

The list continues with Tsinghua University from Beijing, China, on the 2nd spot with 178 nanotechnology patents; followed by the King Fahd University of Petroleum and Minerals from Dhahran, Saudi Arabia, with 95 nanotechnology patents on the 3rd place. These three universities on the list rank among the top 20 nanotechnology patent assignees of 2018 at the USPTO, standing above even many industrial nanotechnology patent holders.

The table below lists the names of the top 30 universities owning the largest number of the nanotechnology patents of 2018 at the USPTO, in descending order; along with their respective shares of nanotechnology patents in their total patents issued in all fields of science and technology, revealing that all these 30 universities have nanotechnology patent shares below 50%, with Tsinghua University at the forefront holding a share around 44%;

nanotechnology can thus be considered as one of the strongest research areas of this university.

Table 1. The top 30 academic nanotechnology patent assignees of 2018 at the USPTO

Rank	Assignee	No. of Nanotechnology Patents	No. of Patents in All Fields of Science and Technology	Share of Nanotechnology Patents in Total Patents
1	UNIVERSITY OF CALIFORNIA	262	1467	17.86%
2	TSINGHUA UNIVERSITY	178	407	43.73%
3	KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS	95	392	24.23%
4	UNIVERSITY OF TEXAS SYSTEM	83	565	14.69%
5	NORTHWESTERN UNIVERSITY	62	264	23.48%
6	LELAND STANFORD JUNIOR UNIVERSITY	57	508	11.22%
7	CORNELL UNIVERSITY	55	210	26.19%
8	UNIVERSITY OF FLORIDA	53	271	19.56%
9	JOHNS HOPKINS UNIVERSITY	44	398	11.06%
10	UNIVERSITY OF MICHIGAN	43	336	12.80%
11	UNIVERSITY OF ILLINOIS	42	224	18.75%
12	UNIVERSITY OF MASSACHUSETTS	40	175	22.86%
13	WASHINGTON UNIVERSITY	39	168	23.21%
14	KING ABDULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY	38	138	27.54%
15	SUNGKYUNKWAN UNIVERSITY	38	179	21.23%
16	KING SAUD UNIVERSITY	37	101	36.63%
17	KOREA UNIVERSITY RESEARCH AND BUSINESS FOUNDATION	35	205	17.07%
18	CASE WESTERN RESERVE UNIVERSITY	35	224	15.63%
19	NANYANG TECHNOLOGICAL UNIVERSITY	34	116	29.31%
20	UNIVERSITY OF PENNSYLVANIA	34	297	11.45%
21	UNIVERSITY OF MINNESOTA	33	283	11.66%
22	CITY UNIVERSITY OF HONG KONG	32	101	31.68%
23	UNIVERSITY OF NORTH CAROLINA	31	183	16.94%
24	COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK	31	243	12.76%
25	PRINCETON UNIVERSITY	31	107	28.97%
26	UNIVERSITY OF CENTRAL FLORIDA	30	89	33.71%
27	YALE UNIVERSITY	30	162	18.52%
28	UNIVERSITY OF HOUSTON SYSTEM	27	89	30.34%
29	ARIZONA STATE UNIVERSITY	26	235	11.06%
30	UNIVERSITY OF MISSOURI	26	91	28.57%

Most patent holders file their patents in collaboration with other universities or industrial research centers; among the top 3 universities of the list, the University of California has had the greatest number of collaborators in publishing its nanotechnology patents. Tsinghua University, for instance, has jointly worked with the world's largest contract electronics manufacturer, Hon Hai Precision Industry Co., Ltd., trading as Foxconn Technology Group, in

so far as 90% of the nanotechnology patents of this university have been jointly issued with this company.

The following graph indicates the number of the nanotechnology patents annually filed by the first 3 universities of the list between 2011 and 2018. The universities of California and Tsinghua have clearly had significant activities in publishing nanotechnology patents during this period; King Fahd University, however, is somewhat a newcomer to this field. Unlike the universities of California and King Fahd whose nanotechnology patents show growing trends throughout these years, Tsinghua University's patents have so far been on the decline since their peak in 2013 with 311 patents.



Figure 1. The number of nanotechnology patents issued annually by the top 3 universities at the USPTO 2011-2018.