
Which Companies Held the Greatest Number of Nanotechnology Patents in 2018?

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As reported by StatNano, the International Business Machines Corporation (IBM) and Samsung were at the forefront of nanotechnology patent holders at the United States Patent and Trademark Office (USPTO) in 2018, while Nanotek Instruments Inc. topped the list in terms of holding the largest share of nanotechnology patents in the total patents issued by the very company during the past year.

The USPTO is recognized as one of the most reputable patent offices on a global scale. According to the [statistical data](#) collected by the [Orbit Database](#) during 2018, a total of 19,773 nanotechnology patents were filed at this patent office; 8,493 of which were granted patents, and 11,280 were published patent applications.

Considering the scores achieved for both granted patents and published patent applications, IBM with the greatest number of nanotechnology patents at the USPTO in 2018 ranked first among all patent holders. This American company operates in various fields of software and hardware, and provides hosting and consulting services in areas ranging from mainframe computers to nanotechnology. Samsung Electronics Co., Ltd. and Samsung Display Co., Ltd., two spin-offs of the Samsung Group, followed IBM on the list, respectively holding the second and third highest scores. These three companies had also ranked first to third in the exact same order at the USPTO in 2017.

The following table demonstrates the top 20 companies that obtained the highest scores for their both granted patents and published patent applications in the field of nanotechnology at the USPTO during 2018. The share of nanotechnology patents in the total patents filed by each company can also be seen in the table, which indicates that around 94% of the patents issued by Nanotek Instruments, Inc. were in the field of nanotechnology, in as far as it can be considered as a company particularly specializing in nanotechnology. Following Nanotek Instruments, Inc., Tsinghua University with 43.75% and MIT with 20.8% had the second and third largest nanotechnology patent shares of their own total patents.

Table 1. The top 20 nanotechnology patent holders at the USPTO in 2018

Rank	Assignee	Number of Nanotechnology Patents	Number of Total Patents	Share of Nanotechnology Patents in Total Patents
1	INTERNATIONAL BUSINESS MACHINES CORPORATION	775	19479	3.98%
2	SAMSUNG ELECTRONICS CO., LTD.	487	12213	3.99%
3	SAMSUNG DISPLAY CO., LTD.	261	3597	7.26%
4	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA	257	1453	17.69%
5	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.	255	4389	5.81%
6	BOE TECHNOLOGY GROUP CO., LTD.	228	3813	5.98%
7	INTEL CORPORATION	193	6819	2.83%
8	3M INNOVATIVE PROPERTIES COMPANY	192	1391	13.80%
9	THE GOVERNMENT OF THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE ...	189	1838	10.28%
10	SHENZHEN CHINA STAR OPTOELECTRONICS TECHNOLOGY CO., LTD.	181	1520	11.91%
11	HON HAI PRECISION INDUSTRY CO., LTD.	179	714	25.07%
12	TSINGHUA UNIVERSITY	178	407	43.73%
13	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	165	792	20.83%
14	GLOBALFOUNDRIES INC.	145	1260	11.51%
15	LG CHEM, LTD.	133	1622	8.20%
15	COMMISSARIAT A L'ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	127	812	15.64%
17	NANOTEK INSTRUMENTS, INC.	117	124	94.35%
18	SAUDI ARABIAN OIL COMPANY	105	747	14.06%
19	HALLIBURTON ENERGY SERVICES, INC.	99	1760	5.63%
20	KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS	94	392	23.98%

The table below lists the companies and research centers with whom the abovementioned top three companies (IBM, Samsung Electronics, and Samsung Display) collaborated in preparing their patents filled at the USPTO during the past year, which implies that IBM had fewer patent collaborators compared to the other two companies.

Table 2. The patent collaborators of the top 3 nanotechnology patent holders at the USPTO in 2018

SAMSUNG DISPLAY Patent Collaborators	SAMSUNG ELECTRONICS Patent Collaborators	IBM Patent Collaborators
SAMSUNG SDI CO., LTD.	SAMSUNG SDI CO., LTD.	GLOBALFOUNDRIES, INC.

SAMSUNG ELECTRONICS CO., LTD.	CALIFORNIA INSTITUTE OF TECHNOLOGY	EGYPT NANOTECHNOLOGY CENTER
KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY	SAMSUNG DISPLAY CO., LTD.	STMICROELECTRONICS, INC.
UNIST	RESEARCH & BUSINESS FOUNDATION SUNGKYUNKWAN UNIVERSITY	SAN JOSE STATE UNIVERSITY RESEARCH FOUNDATION
KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY	BILKENT UNIVERSITY	AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH
INDUSTRIAL COOPERATION FOUNDATION CHONBUK NATIONAL UNIVERSITY	KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY	ASELSAN ELEKTRONIK SANAYI VE TICARET A.S.
INDUSTRY-ACADEMIA COOPERATION FOUNDATION, HONGIK UNIVERSITY	SEOUL NATIONAL UNIVERSITY R&DB FOUNDATION	THE GEORGE WASHINGTON UNIVERSITY
MYONGJI UNIVERSITY INDUSTRY AND ACADEMIA COOPERATION FOUNDATION	THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY	ULVAC, INC.
POSTECH ACADEMY-INDUSTRY FOUNDATION	AJOU UNIVERSITY INDUSTRY-ACADEMIC COOPERATION FOUNDATION	ZEON CORPORATION
SHINWHA INTERTEK CORP	CHEIL INDUSTRIES INC.	
SNU R&DB FOUNDATION	INDUSTRY-UNIVERSITY COOPERATION FOUNDATION HANYANG UNIVERSITY	
SOGANG UNIVERSITY RESEARCH FOUNDATION	DIC CORPORATION	
SUNGKYUNKWAN UNIVERSITY RESEARCH & BUSINESS FOUNDATION	EWHA UNIVERSITY - INDUSTRY COLLABORATION FOUNDATION	