Patent Tracker

Inorganic nanostructural composites

(Publication Year - 1983 to 2008)

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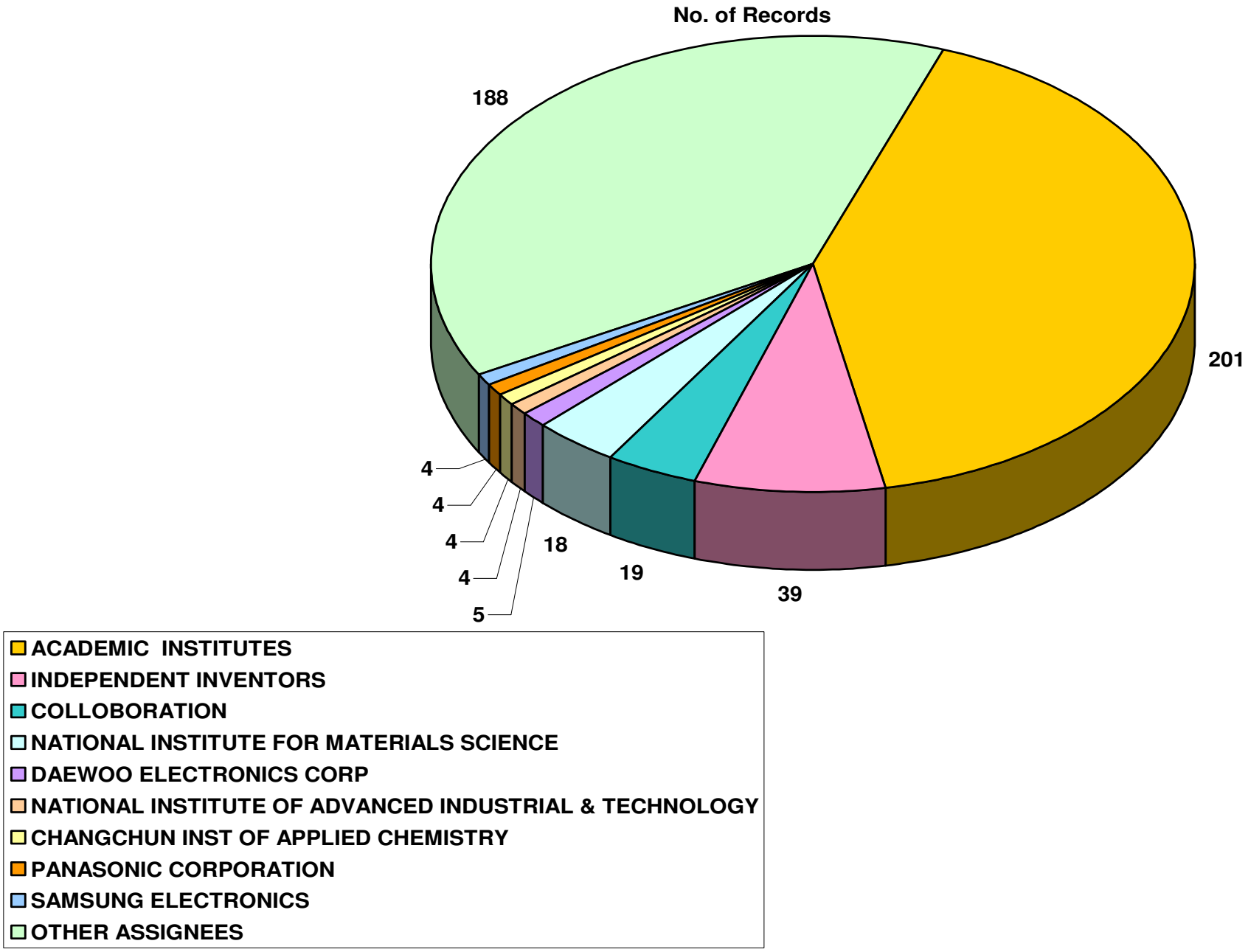
Assignee-wise IP Distribution



Focus of Key players

Key players	Focus
Daewoo Electronics	Nano Silver coating in washing machines (repressing the generative function of virus, bacterium, micro organisms) washing tub, water supply pipes
Panasonic Corporation	Magnetic recording medium, MnO_2 Oxygen reduction electrode, Semi-conductive nanotube
Samsung Electronics	CdS crystal emitting lights, increase of Solar cell efficiency, microfluidic device (centrifugal based), nanocrystals with high quantum efficiency in the blue light.
Chang Chun Institute of Applied Chemistry	Cadmium telluride & selenide nanosticks manufacture, Cadmium sulfide nanorods, Cadimium selenide nanometre particles and Nano-lead selenide
National Institute for Materials Science (Japan)	High-purity mono layered boron nitride nano tube, zinc selenide nano wires, single crystal silicon nitride nano ribbons, zinc sulfide cadmium nano cable & nano tube, zinc oxide-gallium oxide nano tubes, gallium nitride nano tube, zinc sulfide nanocable coated with a carbon film, electroconductive ceria, boron carbide nanobelt, silica nanotube with indium and silicon carbide nanowire.
National Institute of Advanced Industrial & Technology (Japan)	Asymmetric nano particle, fluorescent glass particles with dispersed semi-conductor particles, nano-carbon aggregate with oxygen scavenging capability, disposition of a nano-tube
Collaborations	UV protectant, alpha-alumina nanopowder, CNT, CNF, regularly aligned metal nanorods, thiol ester compound, hydrogen storage material, nano material with antibacterial properties
Others	Jewellers putty nano powder, Zinc phosphate aluminium, optical sensor & Zirconia photocatalyst

Academic Institutes / Universities

Name of university	No. of records	Focus
Zhejiang University, PRC	15	Nano tube of Bi2Te3 (micro electronics), naometer ZnO (on silica surfaces), MoS2 nano particle, Si containing CaO, nanoporous magnetic Fe3O4, TiO2 with 3 dim flower structure, Ru/C composite (for super capacitor), nanometer TiO2 blended with Zn & Si, porous copper oxide, CNT/ZnO sphere (gas sensor) and CeF nanodisk.
Tsinghua University, PRC	9	TiO2 nanotube (photo catalysis), CaCO3 & SiO2 /Olefin composite nano powders, mono silicon nano wires, nanometer CdS line in Zn ore, nanometer V2O5 and soluble TiO2 nano crystal for photo catalysis
Nanjing University, PRC	9	AlN 1 dim nano structure array, nano cuprous oxide, nano TiO2, BN & B-C-N capsule, nanometer Co compound, Ag2V4O11 nanobelt, monodisperse spherical CaCo3 , Ag/SiO2 nanoscale dielec comp bi molecular nanoprobe.
Shanghai University, PRC	8	Nanometer Al(OH)3, sulfide nano particle, nano Al2O3 combine with ammonia, nanometer gilt bronze, carbon nano cages, nano titania, immunoblotting and Y2O3: EU nanometer ball powder
University Of California, USA	6	Colloidal nano crystals, nano crystals with graded shells, micro cantilever and dyslipidemia, hypocholesteromia.
East China Normal University, PRC	5	Nano MgO, red schorl titania, ZnO/poly ethylene composite, superior fine nano MgO, SnO2 complex (3 – dime nano structure)
Xiamen University, PRC	4	Nanometere composite oxide (comprising MnO2 & ZnO), SnO2 hollow nano matl, ZnO nanoline and nano Ag2O (controllable shape)
Wuhan University, PRC	4	TiO2 nanotubes, meso porous TiO2, chitosan Chloride coated hydroxycamptothecine liposome
Shandong Normal University, PRC	4	Gamma alumina, Cd hydroxide single crystal nanowires, CeO2 nano cubes and MnO2 nano structures
Dalian University of Tech, PRC	4	One dimensional nano MgO, ZnO nano belt, WO2 with nano strip array structure

Research collaborations

Name of the Collaborator(s)	Focus of the Collaborators
Mitsubishi Materials Corporation; Dai Nippon Toryo Co Ltd (Japan)	Regularly aligned metal nano rods
Fujikura Ltd; Hokkaido University (Japan)	Nano structure having an arbitrary 3- dim structure
Japan Science and Technology Agency; National Institute of Advanced Industrial Technology (Japan)	Nano porous carbon struture
Washington State University; Idaho Research Foundation (USA)	PECVD to deposit Ni, Pt and Au nano particles on nano wires of SiO_2/ SiC / Graphite (for sensor)
Tokyo University of Science; Fuji Film Corp (Japan)	Thiol Ester compound
Toho Tenax company & Teijin Techno Products Ltd (Japan)	Fiber reinforced thermoplastic resin stampable sheet
Taiheiyo Cement Corp; Hiroshima University (Japan)	Hydrogen Storage material
Martin-Luther-Universitat; Halle-Wittenberg; Max Planck Gesellschaft zur Forderung Derurssenschofrm e.V	Nano structured organic or inorganic host system
Saga University; Japan Medical Materials Corporation (Japan)	Composition with anti bacterial property

Citation Velocity

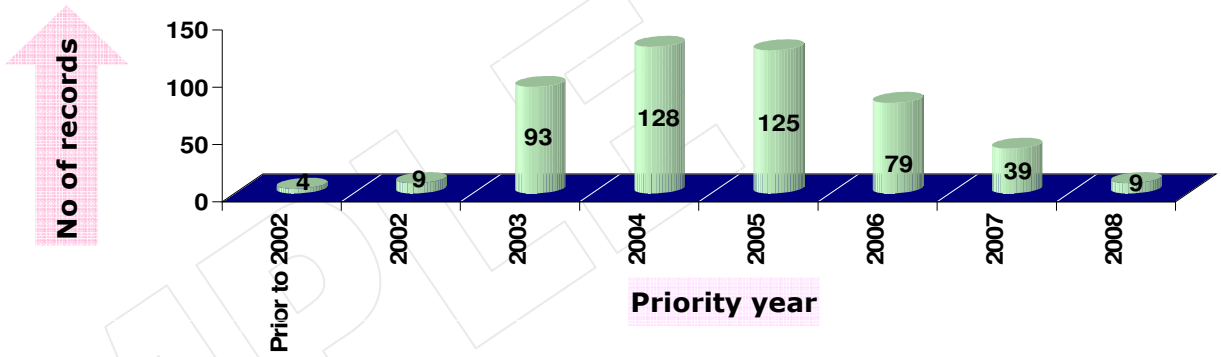
Document ID	Assignee	Title	Year Issued	Cited by	Cited by Self	Cited by others	Avg Cites by Year
US20050258159	Alexza molecular Delivery corporation	Stable initiator compositions and igniters	2005	22	21	ERC Inc (1)	3.4
WO2006005536	BASF Aktiengesellschaft	Method and device For Producing Nanoparticles	2006	11	1	XEROX (10)	2.1
US20050056118	Navy, Secretary of the United States of America	Methods of nanostructure formation and shape selection	2005	11	0	Cabot corp (4) IFP (2)	1.7
US20060067941	University of arkansas	Nanotubes for cancer therapy and diagnostics	2006	8	1	Zyvex (3) Univ. of Pitsburg (2)	1.6
DE10333029	Merck Patent GmbH	Nanopartikuläres UV-Schutzmittel	2005	7	0	Beiersdorf AG (4) DSM IP Assets (2)	1.4
WO2005073305	Ben Gurion Univ of The Negev R & D Agency	Method for the Preparation of Dispersions of Carbon Nanotubes	2005	5	0	Arkema (5)	1.3
WO2005054380	BASF Coatings AG	Hardenable materials, containing disagglomerated barium sulfate, method for production and use thereof	2005	5	0	Solvay Infra (2) Sachtleben Chemie GmbH (2)	1.3
WO2006116742	Ventana Medical Systems Inc	Nanoparticle conjugates	2006	3	0	Institute Nat Sante Rech (2) LTS Lohmann Therapie (1)	1.2
US20050036939	State University Of New York	Hydrothermal synthesis of perovskite nanotubes	2005	6	0	Nano solar Inc (1) Asahi Glass (1)	1.2
EP1695995	Dutch polymer institute	Novel nanocomposite	2006	3	0	Borealis Tech (2) Murtfeldt Kunststoffe (1)	1.1
US20050095191	Massachusetts Institute of technology	Fullerenic structures and such structures tethered to carbon materials	2005	5	0	Zyvex (5)	1.0

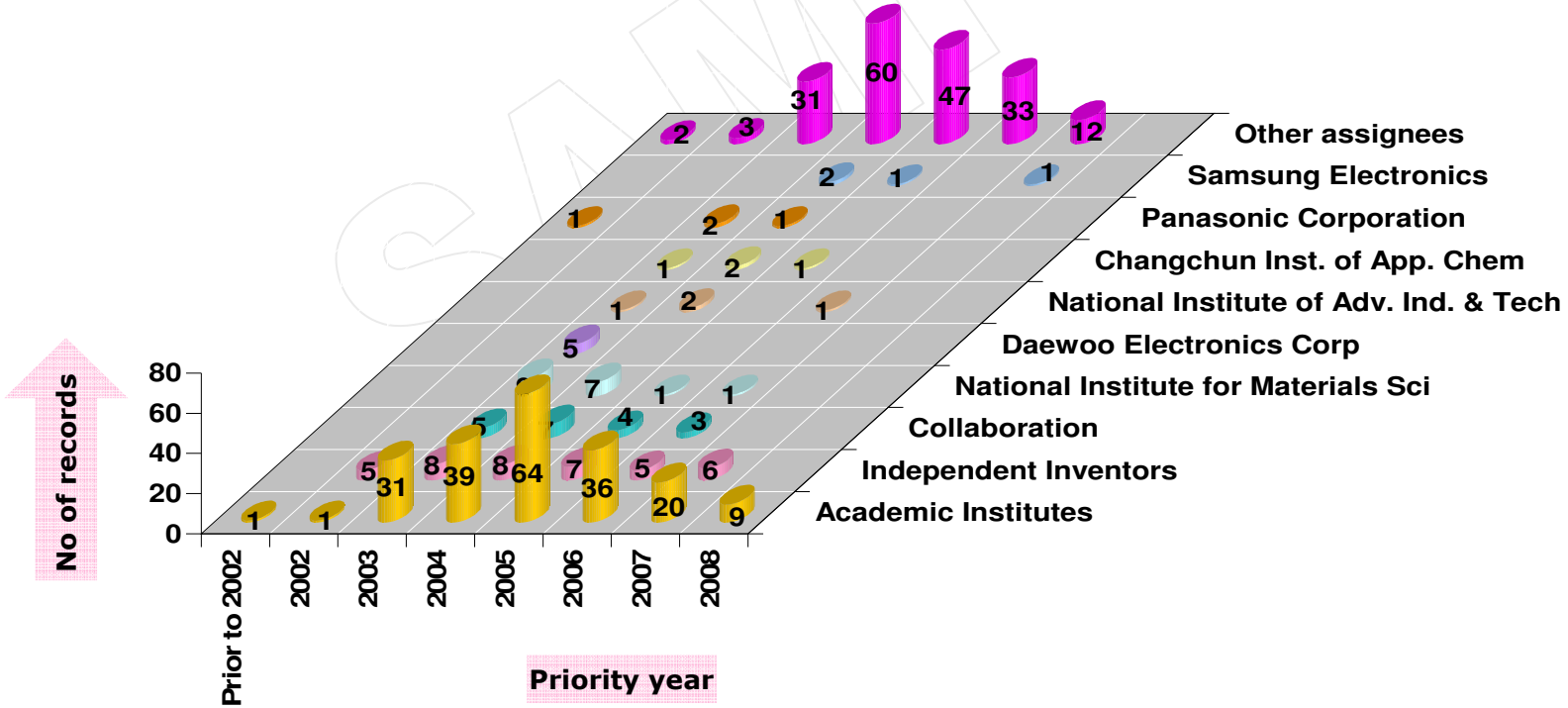
Patenting Trends – Year and Assignee

Daewoo filed 5 applications on nanosilver during 2003; However, there has been no filings since then.

Academic institutes are actively working in this area

Assignees with <4 patents each have been grouped under "Other assignees"





Recent Publications

- **Preparation and characterization of magnetite / dextran nanocomposite used as a precursor of magnetic fluid**
- **Hydrophobic magnesium hydroxide nanoparticles via oleic acid and poly(methyl methacrylate)-grafting surface modification**
- **Ablation mechanism of polymer layered silicate nanocomposite heat shield**
- **Synthesis of nano B_2O_3/TiO_2 composite material as a new solid phase extractor and its application to preconcentration and separation of cadmium**
- **Analysis of reactions during sintering of CuO-doped 3Y-TZP nano-powder composites**
- **Synthesis, microstructure and electrical conductivity of carbon nanotube–alumina nanocomposites**
- **Nonlinear optical, poly(amide-imide)–clay nanocomposites comprising an azobenzene moiety synthesised via sequential self-repetitive reaction**
- **Novel Ag–$BaTiO_3$/PVDF three-component nanocomposites with high energy density and the influence of nano-Ag on the dielectric properties**
- **Analysis of reactions during sintering of CuO-doped 3Y-TZP nano-powder composites**
- **Preparation of TiO_2/Nano-metal composite particles and their applications in dye-sensitized solar cells**