Takeshi Tanaka

List of Publications by Year
in descending order

94 papers	4,198 citations	159585 30 h-index	123424 61 g-index
94 all docs	94 docs citations	94 times ranked	3971 citing authors

#	ARTICLE	IF	CITATIONS
1	Large-scale single-chirality separation of single-wall carbon nanotubes by simple gel chromatography. Nature Communications, 2011, 2, 309.	12.8	762
2	Simple and Scalable Gel-Based Separation of Metallic and Semiconducting Carbon Nanotubes. Nano Letters, 2009, 9, 1497-1500.	9.1	307
3	Tunable room-temperature single-photon emission at telecom wavelengths from sp3 defects in carbon nanotubes. Nature Photonics, 2017, 11, 577-582.	31.4	235
4	Industrial-scale separation of high-purity single-chirality single-wall carbon nanotubes for biological imaging. Nature Communications, 2016, 7, 12056.	12.8	188
5	High-Yield Separation of Metallic and Semiconducting Single-Wall Carbon Nanotubes by Agarose Gel Electrophoresis. Applied Physics Express, 0, 1, 114001.	2.4	169
6	A Unique Chitinase with Dual Active Sites and Triple Substrate Binding Sites from the Hyperthermophilic Archaeon <i>Pyrococcus kodakaraensis</i> KOD1. Applied and Environmental Microbiology, 1999, 65, 5338-5344.	3.1	154
7	High-Efficiency Single-Chirality Separation of Carbon Nanotubes Using Temperature-Controlled Gel Chromatography. Nano Letters, 2013, 13, 1996-2003.	9.1	146
8	Continuous Separation of Metallic and Semiconducting Carbon Nanotubes Using Agarose Gel. Applied Physics Express, 2009, 2, 125002.	2.4	119
9	Experimental determination of excitonic band structures of single-walled carbon nanotubes using circular dichroism spectra. Nature Communications, 2016, 7, 12899.	12.8	104
10	Characterization of an Exo-Î²- d -Glucosaminidase Involved in a Novel Chitinolytic Pathway from the Hyperthermophilic Archaeon Thermococcus kodakaraensis KOD1. Journal of Bacteriology, 2003, 185, 5175-5181.	2.2	97
11	Diameter-Selective Metal/Semiconductor Separation of Single-wall Carbon Nanotubes by Agarose Gel. Journal of Physical Chemistry C, 2010, 114, 9270-9276.	3.1	97
12	Different Cleavage Specificities of the Dual Catalytic Domains in Chitinase from the Hyperthermophilic Archaeon Thermococcus kodakaraensis KOD1. Journal of Biological Chemistry, 2001, 276, 35629-35635.	3.4	89
13	Concerted Action of Diacetylchitobiose Deacetylase and Exo-Î²-D-glucosaminidase in a Novel Chitinolytic Pathway in the Hyperthermophilic Archaeon Thermococcus kodakaraensis KOD1. Journal of Biological Chemistry, 2004, 279, 30021-30027.	3.4	78
14	pH- and Solute-Dependent Adsorption of Single-Wall Carbon Nanotubes onto Hydrogels: Mechanistic Insights into the Metal/Semiconductor Separation. ACS Nano, 2013, 7, 10285-10295.	14.6	74
15	Near-Infrared Photoluminescent Carbon Nanotubes for Imaging of Brown Fat. Scientific Reports, 2017, 7, 44760.	3.3	71
16	Optical Isomer Separation of Single-Chirality Carbon Nanotubes Using Gel Column Chromatography. Nano Letters, 2014, 14, 6237-6243.	9.1	69
17	Semiconducting carbon nanotubes as crystal growth templates and grain bridges in perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 12987-12992.	10.3	57
18	Electrochemical determination of uric acid in urine and serum with uricase/carbon nanotube /carboxymethylcellulose electrode. Analytical Biochemistry, 2020, 590, 113533.	2.4	56

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19	Thermodynamic Determination of the Metal/Semiconductor Separation of Carbon Nanotubes Using Hydrogels. ACS Nano, 2012, 6, 10195-10205.	14.6	53
20	From metal/semiconductor separation to singleâ€chirality separation of singleâ€wall carbon nanotubes using gel. Physica Status Solidi - Rapid Research Letters, 2011, 5, 301-306.	2.4	49
21	Polyaromatic Nanotweezers on Semiconducting Carbon Nanotubes for the Growth and Interfacing of Lead Halide Perovskite Crystal Grains in Solar Cells. Chemistry of Materials, 2020, 32, 5125-5133.	6.7	45
22	Discovery of Surfactants for Metal/Semiconductor Separation of Single-Wall Carbon Nanotubes via High-Throughput Screening. Journal of the American Chemical Society, 2011, 133, 17610-17613.	13.7	42
23	Effects of Surfactants on the Electronic Transport Properties of Thin-Film Transistors of Single-Wall Carbon Nanotubes. Journal of Physical Chemistry C, 2013, 117, 11744-11749.	3.1	42
24	Electrochemical behavior of metallic and semiconducting single-wall carbon nanotubes for electric double-layer capacitor. Carbon, 2012, 50, 1422-1424.	10.3	40
25	Metallic versus Semiconducting SWCNT Chemiresistors: A Case for Separated SWCNTs Wrapped by a Metallosupramolecular Polymer. ACS Applied Materials & Interfaces, 2017, 9, 38062-38067.	8.0	39
26	Amperometric Detection of Sub-ppm Formaldehyde Using Single-Walled Carbon Nanotubes and Hydroxylamines: A Referenced Chemiresistive System. ACS Sensors, 2017, 2, 1405-1409.	7.8	37
27	Single-Chirality Separation and Optical Properties of (5,4) Single-Wall Carbon Nanotubes. Journal of Physical Chemistry C, 2016, 120, 10705-10710.	3.1	36
28	Simultaneous Chirality and Enantiomer Separation of Metallic Single-Wall Carbon Nanotubes by Gel Column Chromatography. Analytical Chemistry, 2015, 87, 9467-9472.	6.5	35
29	Arginine Side Chains as a Dispersant for Individual Singleâ€Wall Carbon Nanotubes. Chemistry - A European Journal, 2014, 20, 4922-4930.	3.3	34
30	High-yield and high-throughput single-chirality enantiomer separation of single-wall carbon nanotubes. Carbon, 2018, 132, 1-7.	10.3	34
31	Performance Enhancement of Thin-Film Transistors by Using High-Purity Semiconducting Single-Wall Carbon Nanotubes. Applied Physics Express, 0, 2, 071601.	2.4	33
32	Photoluminescence Quantum Yield of Single-Wall Carbon Nanotubes Corrected for the Photon Reabsorption Effect. Nano Letters, 2020, 20, 410-417.	9.1	33
33	Diameter Analysis of Rebundled Single-Wall Carbon Nanotubes Using X-ray Diffraction: Verification of Chirality Assignment Based on Optical Spectra. Journal of Physical Chemistry C, 2008, 112, 15997-16001.	3.1	31
34	Determination of Enantiomeric Purity of Single-Wall Carbon Nanotubes Using Flavin Mononucleotide. Journal of the American Chemical Society, 2017, 139, 16068-16071.	13.7	31
35	Automatic Sorting of Single-Chirality Single-Wall Carbon Nanotubes Using Hydrophobic Cholates: Implications for Multicolor Near-Infrared Optical Technologies. ACS Applied Nano Materials, 2020, 3, 11289-11297.	5.0	31
36	Purification of Single-Wall Carbon Nanotubes by Controlling the Adsorbability onto Agarose Gels Using Deoxycholate. Journal of Physical Chemistry C, 2012, 116, 9816-9823.	3.1	28

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37	Gene analysis and enzymatic properties of thermostable Î^2-glycosidase from Pyrococcus kodakaraensis KOD1. Journal of Bioscience and Bioengineering, 1999, 88, 130-135.	2.2	26
38	Interaction Force of Chitin-Binding Domains onto Chitin Surface. Biomacromolecules, 2008, 9, 2126-2131.	5.4	26
39	Characterization of a Novel Glucosamine-6-Phosphate Deaminase from a Hyperthermophilic Archaeon. Journal of Bacteriology, 2005, 187, 7038-7044.	2.2	25
40	Expression Profiles and Physiological Roles of Two Types of Prefoldins from the Hyperthermophilic Archaeon Thermococcus kodakaraensis. Journal of Molecular Biology, 2008, 382, 298-311.	4.2	25
41	Metal/semiconductor separation of singleâ€wall carbon nanotubes by selective adsorption and desorption for agarose gel. Physica Status Solidi (B): Basic Research, 2010, 247, 2867-2870.	1.5	25
42	Non-volatile Resistance Switching using Single-Wall Carbon Nanotube Encapsulating Fullerene Molecules. Applied Physics Express, 0, 2, 035008.	2.4	24
43	Oneâ€step separation of highâ€purity (6,5) carbon nanotubes by multicolumn gel chromatography. Physica Status Solidi (B): Basic Research, 2011, 248, 2524-2527.	1.5	24
44	Mass separation of metallic and semiconducting singleâ€wall carbon nanotubes using agarose gel. Physica Status Solidi (B): Basic Research, 2009, 246, 2490-2493.	1.5	23
45	Adsorbability of Single-Wall Carbon Nanotubes onto Agarose Gels Affects the Quality of the Metal/Semiconductor Separation. Journal of Physical Chemistry C, 2011, 115, 21723-21729.	3.1	23
46	Photoluminescence Intensity Fluctuations and Temperature-Dependent Decay Dynamics of Individual Carbon Nanotube sp³ Defects. Journal of Physical Chemistry Letters, 2019, 10, 1423-1430.	4.6	23
47	Tk-PTP, protein tyrosine/serine phosphatase from hyperthermophilic archaeon Thermococcus kodakaraensis KOD1: enzymatic characteristics and identification of its substrate proteins. Biochemical and Biophysical Research Communications, 2002, 295, 508-514.	2.1	21
48	Characterization of MobR, the 3-Hydroxybenzoate-responsive Transcriptional Regulator for the 3-Hydroxybenzoate Hydroxylase Gene of Comamonas testosteroni KH122-3s. Journal of Molecular Biology, 2006, 364, 863-877.	4.2	19
49	In vitro selection of peptide aptamers with affinity to single-wall carbon nanotubes using a ribosome display. Biotechnology Letters, 2013, 35, 39-45.	2.2	17
50	Liquid Chromatographic Analysis of the Interaction between Amino Acids and Aromatic Surfaces Using Single-Wall Carbon Nanotubes. Langmuir, 2015, 31, 8923-8929.	3.5	17
51	Solubilization of Single-Walled Carbon Nanotubes Using a Peptide Aptamer in Water below the Critical Micelle Concentration. Langmuir, 2015, 31, 3482-3488.	3.5	17
52	Fasting-dependent Vascular Permeability Enhancement in Brown Adipose Tissues Evidenced by Using Carbon Nanotubes as Fluorescent Probes. Scientific Reports, 2018, 8, 14446.	3.3	17
53	Cascade Reaction-Based Chemiresistive Array for Ethylene Sensing. ACS Sensors, 2020, 5, 1405-1410.	7.8	17
54	Colors of carbon nanotubes. Diamond and Related Materials, 2009, 18, 935-939.	3.9	16

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55	Origin of the Surfactantâ€Dependent Redox Chemistry of Singleâ€Wall Carbon Nanotubes. ChemNanoMat, 2016, 2, 911-920.	2.8	16
56	Effective Separation of Carbon Nanotubes and Metal Particles from Pristine Raw Soot by Ultracentrifugation. Japanese Journal of Applied Physics, 2009, 48, 015004.	1.5	14
57	Sustained photodynamic effect of single chirality-enriched single-walled carbon nanotubes. Carbon, 2020, 161, 718-725.	10.3	14
58	High performance thinâ€film transistors using moderately aligned semiconducting singleâ€wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2011, 248, 2692-2696.	1.5	13
59	Facile synthesis of guar gum gel for the separation of metallic and semiconducting single-wall carbon nanotubes. Carbon, 2018, 129, 745-749.	10.3	13
60	Direct Proof of a Defect-Modulated Gap Transition in Semiconducting Nanotubes. Nano Letters, 2018, 18, 3920-3925.	9.1	13
61	Siteâ€selective deposition of singleâ€wall carbon nanotubes by patterning selfâ€assembled monolayer for application to thinâ€film transistors. Physica Status Solidi (B): Basic Research, 2010, 247, 2750-2753.	1.5	12
62	Synthesis of novel thiopheneâ€phenylene oligomer derivatives with a dibenzothiopheneâ€5,5â€dioxide core for use in organic solar cells. Physica Status Solidi (B): Basic Research, 2012, 249, 2648-2651.	1.5	12
63	Atomic Force Microscopic Study of Chitinase Binding onto Chitin and Cellulose Surfaces. Biomacromolecules, 2014, 15, 1074-1077.	5.4	12
64	Disulfide bond formation of thiols by using carbon nanotubes. Nanoscale, 2017, 9, 5389-5393.	5.6	12
65	PERIPUTOS: Purity evaluated by Raman intensity of pristine and ultracentrifuged topping of singleâ€wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2009, 246, 2728-2731.	1.5	11
66	High-Efficiency Separation of (6,5) Carbon Nanotubes by Stepwise Elution Gel Chromatography. Physica Status Solidi (B): Basic Research, 2017, 254, 1700279.	1.5	11
67	Diameterâ€Selective Separation of Semiconducting Singleâ€Walled Carbon Nanotubes in Large Diameter Range. Physica Status Solidi (B): Basic Research, 2017, 254, 1700294.	1.5	10
68	Fate of Carbon Nanotubes Locally Implanted in Mice Evaluated by Near-Infrared Fluorescence Imaging: Implications for Tissue Regeneration. ACS Applied Nano Materials, 2019, 2, 1382-1390.	5.0	10
69	Oxidative Stress of Carbon Nanotubes on Proteins Is Mediated by Metals Originating from the Catalyst Remains. ACS Nano, 2019, 13, 1805-1816.	14.6	9
70	Carbon Nanotubes Facilitate Oxidation of Cysteine Residues of Proteins. Journal of Physical Chemistry Letters, 2017, 8, 5216-5221.	4.6	8
71	Directly crosslinked dextran gels for SWCNT separation. Carbon, 2020, 156, 422-429.	10.3	8
72	Arginine Suppresses the Adsorption of Lysozyme onto Single-wall Carbon Nanotubes. Chemistry Letters, 2016, 45, 952-954.	1.3	7

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73	Empirical formulation of broadband complex refractive index spectra of single-chirality carbon nanotube assembly. Nanophotonics, 2022, 11, 1011-1020.	6.0	7
74	Sorting singleâ€wall carbon nanotubes combining gel chromatography and densityâ€gradient ultracentrifugation. Physica Status Solidi (B): Basic Research, 2010, 247, 2746-2749.	1.5	6
75	Binding ability of chitinase onto cellulose: an atomic force microscopy study. Polymer Journal, 2011, 43, 742-744.	2.7	6
76	Suppression of single-wall carbon nanotube redox reaction by adsorbed proteins. Applied Physics Express, 2018, 11, 075101.	2.4	5
77	Xylose-Insensitive Direct Electron Transfer Biosensor Strip With Single-Walled Carbon Nanotubes and Novel Fungal Flavin Adenine Dinucleotide Glucose Dehydrogenase. IEEE Sensors Journal, 2020, 20, 12522-12529.	4.7	5
78	Quantitative analysis of the effect of reabsorption on the Raman spectroscopy of distinct (<i>n</i>,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.7	5
79	Band structure dependent electronic localization in macroscopic films of single-chirality single-wall carbon nanotubes. Carbon, 2021, 183, 774-779.	10.3	5
80	Thinâ€film transistors fabricated from semiconductorâ€enriched singleâ€wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2009, 246, 2849-2852.	1.5	3
81	Embedding of single-wall carbon nanotubes into nanopores of porous alumina by electrophoresis. Microelectronic Engineering, 2010, 87, 1516-1518.	2.4	3
82	Diameterâ€selective desorption of semiconducting singleâ€wall carbon nanotubes from agarose gel. Physica Status Solidi (B): Basic Research, 2010, 247, 2649-2652.	1.5	3
83	Vibrational energy transfer from photoexcited carbon nanotubes to proteins observed by coherent phonon spectroscopy. Applied Physics Express, 2017, 10, 125101.	2.4	3
84	Diameter dependence of single-walled carbon nanotubes with flavin adenine dinucleotide glucose dehydrogenase for direct electron transfer bioanodes. Japanese Journal of Applied Physics, 2019, 58, 051015.	1.5	3
85	Fabrication of Homogeneous Thin Films of Semiconductor-Enriched Single-Wall Carbon Nanotubes for Uniform-Quality Transistors by Using Immersion Coating. Applied Physics Express, 2013, 6, 105103.	2.4	2
86	Direct Electron Transfer Between Single-Walled Carbon Nanotube and Fructose Dehydrogenase. IEEE Nanotechnology Magazine, 2021, 20, 610-618.	2.0	2
87	Cold-induced Conversion of Connective Tissue Skeleton in Brown Adipose Tissues. Acta Histochemica Et Cytochemica, 2021, 54, 131-141.	1.6	2
88	Coherent monochromatic phonons in highly purified semiconducting single-wall carbon nanotubes. Applied Physics Letters, 2013, 102, 222109.	3.3	1
89	Separation of carbon nanotubes (CNTs) by the separation method for biomolecules. Synthesiology, 2013, 6, 75-83.	0.2	1
90	Filling control of n-type and p-type dopant molecules in single-wall carbon nanotubes. Applied Physics Express, 2020, 13, 065003.	2.4	1

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91	Ultrafast Vibrational Energy Transfer from Photoexcited Carbon Nanotubes to Proteins. EPJ Web of Conferences, 2019, 205, 05009.	0.3	0
92	Separation of carbon nanotubes (CNTs) by the separation method for biomolecules. Synthesiology, 2013, 6, 75-83.	0.2	0
93	Industrial Single-Structure Separation of Single-Wall Carbon Nanotubes by Multicolumn Gel Chromatography. , 2014, , 49-56.		0
94	Ultrafast photoinduced mechanical distortion of carbon nanotubes via electronic excitation. , 2020, , .		0