Takuya Kitaoka

List of Publications by Year
in descending order

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125 papers	3,749 citations	136740 32 h-index	143772 57 g-index
127 all docs	127 docs citations	127 times ranked	4335 citing authors

#	Article	IF	Citations
1	Transparent, Conductive, and Printable Composites Consisting of TEMPO-Oxidized Nanocellulose and Carbon Nanotube. Biomacromolecules, 2013, 14, 1160-1165.	2.6	257
2	Topochemical synthesis and catalysis of metal nanoparticles exposed on crystalline cellulose nanofibers. Chemical Communications, 2010, 46, 8567.	2.2	211
3	Capturing of bisphenol A photodecomposition intermediates by composite TiO2â€“zeolite sheets. Applied Catalysis B: Environmental, 2003, 46, 453-462.	10.8	205
4	Photocatalytic Decomposition of Bisphenol A in Water Using Composite TiO2-Zeolite Sheets Prepared by a Papermaking Technique. Environmental Science & Technology, 2003, 37, 1048-1051.	4.6	175
5	Cellulose Nanofiber Paper as an Ultra Flexible Nonvolatile Memory. Scientific Reports, 2014, 4, 5532.	1.6	122
6	Ultraselective Gas Separation by Nanoporous Metalâ€'Organic Frameworks Embedded in Gasâ€Barrier Nanocellulose Films. Advanced Materials, 2016, 28, 1765-1769.	11.1	120
7	Removal of indoor pollutants under UV irradiation by a composite TiO2â€“zeolite sheet prepared using a papermaking technique. Chemosphere, 2003, 50, 79-83.	4.2	114
8	Photocatalytic oxidation of NO x using composite sheets containing TiO 2 and a metal compound. Chemosphere, 2003, 51, 855-860.	4.2	108
9	In situ synthesis of silver nanoparticles on zinc oxide whiskers incorporated in a paper matrix for antibacterial applications. Journal of Materials Chemistry, 2009, 19, 2135.	6.7	93
10	Chemical modification of pulp fibers by TEMPO-mediated oxidation. Nordic Pulp and Paper Research Journal, 1999, 14, 279-284.	0.3	92
11	Preparation and characteristics of high performance paper containing titanium dioxide photocatalyst supported on inorganic fiber matrix. Chemosphere, 2003, 53, 1193-1199.	4.2	83
12	In situ modification of cellulose paper with amino groups for catalytic applications. Journal of Materials Chemistry, 2011, 21, 9356.	6.7	77
13	Synthesis and Catalytic Features of Hybrid Metal Nanoparticles Supported on Cellulose Nanofibers. Catalysts, 2011, 1, 83-96.	1.6	71
14	One-step synthesis of gold nanocatalysts on a microstructured paper matrix for the reduction of 4-nitrophenol. Chemical Engineering Journal, 2011, 168, 420-425.	6.6	71
15	Helical Assembly of Azobenzene-Conjugated Carbohydrate Hydrogelators with Specific Affinity for Lectins. Langmuir, 2012, 28, 4404-4412.	1.6	71
16	Synthesis of Gold Nanoparticles for Inâ€…Situ Conjugation with Structural Carbohydrates. Angewandte Chemie - International Edition, 2008, 47, 9866-9869.	7.2	59
17	Topological loading of Cu(i) catalysts onto crystalline cellulose nanofibrils for the Huisgen click reaction. Journal of Materials Chemistry, 2012, 22, 5538.	6.7	59
18	Steam reforming behavior of methanol using paper-structured catalysts: Experimental and computational fluid dynamic analysis. International Journal of Hydrogen Energy, 2008, 33, 1661-1670.	3.8	58

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19	Methanol steam reforming over paper-like composites of Cu/ZnO catalyst and ceramic fiber. Applied Catalysis A: General, 2006, 300, 155-161.	2.2	55
20	Hydrochloric Acid Hydrolysis of Pulps from Oil Palm Empty Fruit Bunches to Produce Cellulose Nanocrystals. Journal of Polymers and the Environment, 2018, 26, 3698-3709.	2.4	54
21	Surface morphology of cellulose films prepared by spin coating on silicon oxide substrates pretreated with cationic polyelectrolyte. Applied Surface Science, 2007, 253, 4208-4214.	3.1	52
22	Synthesis of Cellulose Inâ€...Vitro by Using a Cellulase/Surfactant Complex in a Nonaqueous Medium. Angewandte Chemie - International Edition, 2007, 46, 2063-2065.	7.2	49
23	Molecular imaging of single cellulose chains aligned on a highly oriented pyrolytic graphite surface. Carbohydrate Research, 2007, 342, 2593-2598.	1.1	48
24	Title is missing!. Journal of Materials Science, 2002, 37, 2937-2941.	1.7	46
25	Effect of void structure of photocatalyst paper on VOC decomposition. Chemosphere, 2007, 66, 2136-2141.	4.2	46
26	Autothermal reforming of methanol using paper-like Cu/ZnO catalyst composites prepared by a papermaking technique. Applied Catalysis A: General, 2006, 309, 263-269.	2.2	45
27	Hydrogen production from methanol using a SiC fiber-containing paper composite impregnated with Cu/ZnO catalyst. Applied Catalysis A: General, 2006, 310, 138-144.	2.2	42
28	Partial substitution of cellulose by ring-opening esterification of cyclic esters in a homogeneous system. Journal of Applied Polymer Science, 2006, 102, 4358-4364.	1.3	38
29	Conformational changes in single carboxymethylcellulose chains on a highly oriented pyrolytic graphite surface under different salt conditions. Carbohydrate Research, 2007, 342, 954-960.	1.1	37
30	In situ synthesis of Cu nanocatalysts on ZnO whiskers embedded in a microstructured paper composite for autothermal hydrogen production. Chemical Communications, 2008, , 5616.	2.2	35
31	Celluloseâ€‰I Nanolayers Designed by Selfâ€Assembly of its Thiosemicarbazone on a Gold Substrate. Advanced Materials, 2007, 19, 3368-3370.	11.1	34
32	Surface modification of a solid-state cellulose matrix with lactose by a surfactant-enveloped enzyme in a nonaqueous medium. Journal of Materials Chemistry, 2009, 19, 1836.	6.7	34
33	Insight into metabolic diversity of the brownâ€rot basidiomycete Postia placenta responsible for sesquiterpene biosynthesis: semiâ€comprehensive screening of cytochrome P450 monooxygenase involved in protoilludene metabolism. Microbial Biotechnology, 2018, 11, 952-965.	2.0	34
34	Paper-structured catalyst with porous fiber-network microstructure for autothermal hydrogen production. Chemical Engineering Journal, 2008, 139, 408-415.	6.6	32
35	Study on paper-structured catalyst for direct internal reforming SOFC fueled by the mixture of CH4 and CO2. International Journal of Hydrogen Energy, 2013, 38, 10542-10551.	3.8	32
36	Paper-structured fiber composites impregnated with platinum nanoparticles synthesized on a carbon fiber matrix for catalytic reduction of nitrogen oxides. Applied Catalysis B: Environmental, 2009, 90, 699-704.	10.8	29

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37	Preparation of Lactose-Modified Cellulose Films by a Nonaqueous Enzymatic Reaction and their Biofunctional Characteristics as a Scaffold for Cell Culture. Biomacromolecules, 2009, 10, 1265-1269.	2.6	29
38	Highly translucent all wood plastics via heterogeneous esterification in ionic liquid/dimethyl sulfoxide. Industrial Crops and Products, 2017, 108, 286-294.	2.5	29
39	Title is missing!. Journal of Materials Science, 2001, 36, 4921-4926.	1.7	28
40	Biofunctionality of self-assembled nanolayers composed of cellulosic polymers. Carbohydrate Polymers, 2008, 74, 666-672.	5.1	28
41	Chemically-Modified Cellulose Paper as a Microstructured Catalytic Reactor. Molecules, 2015, 20, 1495-1508.	1.7	26
42	Paper-structured catalyst for the steam reforming of biodiesel fuel. International Journal of Hydrogen Energy, 2013, 38, 11278-11287.	3.8	25
43	Title is missing!. Journal of Materials Science, 2003, 38, 1611-1615.	1.7	24
44	Thermally responsive wettability of self-assembled methylcellulose nanolayers. Applied Surface Science, 2007, 253, 5149-5154.	3.1	24
45	Paper-immobilized enzyme as a green microstructured catalyst. Journal of Materials Chemistry, 2012, 22, 11591.	6.7	24
46	Sizing mechanism of emulsion rosin size-alum systems. Nordic Pulp and Paper Research Journal, 1995, 10, 253-260.	0.3	22
47	Novel paper strength additive containing cellulose-binding domain of cellulase. Journal of Wood Science, 2001, 47, 322-324.	0.9	22
48	On-paper synthesis of Au nanocatalysts from Au(III) complex ions for low-temperature CO oxidation. Journal of Materials Chemistry, 2009, 19, 5244.	6.7	22
49	NO X reduction over paper-structured fiber composites impregnated with Pt/Al2O3 catalyst for exhaust gas purification. Journal of Materials Science, 2010, 45, 4151-4157.	1.7	22
50	Preparation and characterization of sputtered aluminum and gallium co-doped ZnO films as conductive substrates in dye-sensitized solar cells. Chemical Engineering Journal, 2013, 219, 273-277.	6.6	22
51	Interfacial Hydrolysis of Acetals on Protonated TEMPO-oxidized Cellulose Nanofibers. Scientific Reports, 2018, 8, 5021.	1.6	20
52	In situ synthesis of Ni/MgO catalysts on inorganic paper-like matrix for methane steam reforming. Chemical Engineering Journal, 2013, 229, 515-521.	6.6	18
53	Cooperative catalysis of cellulose nanofiber and organocatalyst in direct aldol reactions. Scientific Reports, 2018, 8, 4098.	1.6	18
54	Paper-structured catalyst for catalytic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mrow><mml:mi mathvariant="normal">NO</mml:mi></mml:mrow></mml:mrow><mml:mrow><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml: removal from combustion exhaust gas. Chemical Engineering Science, 2010, 65, 208-213.	1.9	17

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55	Synthesis and bio-applications of carbohydrateâ€“gold nanoconjugates with nanoparticle and nanolayer forms. Materials Science and Engineering C, 2011, 31, 1221-1229.	3.8	17
56	Lignin-Inspired Surface Modification of Nanocellulose by Enzyme-Catalyzed Radical Coupling of Coniferyl Alcohol in Pickering Emulsion. ACS Sustainable Chemistry and Engineering, 2020, 8, 1185-1194.	3.2	17
57	Composite sheets with biodegradable polymers and paper, the effect of paper strengthening agents on strength enhancement, and an evaluation of biodegradability. Journal of Applied Polymer Science, 2005, 96, 861-866.	1.3	16
58	Influence of a fiber-network microstructure of paper-structured catalyst on methanol reforming behavior. Journal of Materials Science, 2009, 44, 5836-5841.	1.7	16
59	Heterologous expression of fungal cytochromes P450 (CYP5136A1 and CYP5136A3) from the white-rot basidiomycete Phanerochaete chrysosporium : Functionalization with cytochrome b 5 in Escherichia coli. Enzyme and Microbial Technology, 2016, 89, 7-14.	1.6	16
60	Thermally Tunable Pickering Emulsions Stabilized by Carbon-Dot-Incorporated Coreâ€“Shell Nanospheres with Fluorescence â€œOnâ€“Offâ€•Behavior. Langmuir, 2018, 34, 273-283.	1.6	16
61	Supramolecular structure and sizing performance of rosin-based emulsion size microparticles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2003, 221, 19-28.	2.3	15
62	Inâ€…Situ Synthesis of Platinum Nanocatalysts on a Microstructured Paperlike Matrix for the Catalytic Purification of Exhaust Gases. ChemSusChem, 2010, 3, 604-608.	3.6	15
63	Preparation and cell culture behavior of self-assembled monolayers composed of chitohexaose and chitosan hexamer. Carbohydrate Polymers, 2010, 82, 21-27.	5.1	15
64	In Situ Synthesis of Bimetallic Hybrid Nanocatalysts on a Paper-Structured Matrix for Catalytic Applications. Catalysts, 2011, 1, 69-82.	1.6	15
65	Effect of cationic surfactants on characteristics and colorimetric behavior of polydiacetylene/silica nanocomposite as timeâ€“temperature indicator. Applied Surface Science, 2014, 314, 426-432.	3.1	15
66	Bioadaptive Porous 3D Scaffolds Comprising Cellulose and Chitosan Nanofibers Constructed by Pickering Emulsion Templating. Advanced Functional Materials, 2022, 32, .	7.8	15
67	Tailoring hybrid glyco-nanolayers composed of chitohexaose and cellohexaose for cell culture applications. Journal of Materials Chemistry, 2011, 21, 11150.	6.7	14
68	Surface-Modified Cellulose Nanofibers-graft-poly(lactic acid)s Made by Ring-Opening Polymerization of l-Lactide. Journal of Polymers and the Environment, 2019, 27, 847-861.	2.4	14
69	A novel double-coating carrier produced by solid-in-oil and solid-in-water nanodispersion technology for delivery of genes and proteins into cells. Journal of Controlled Release, 2012, 161, 713-721.	4.8	13
70	Surface-Carboxylated Nanocellulose-Based Bioadaptive Scaffolds for Cell Culture. Cellulose, 2022, 29, 2869-2883.	2.4	13
71	Combination of Polysaccharide Nanofibers Derived from Cellulose and Chitin Promotes the Adhesion, Migration and Proliferation of Mouse Fibroblast Cells. Nanomaterials, 2022, 12, 402.	1.9	13
72	Rosin sizing of pulps modified by TEMPO-mediated oxidation. Nordic Pulp and Paper Research Journal, 2000, 15, 177-182.	0.3	12

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73	Influence of uniformity of zeolite sheets prepared using a papermaking technique on VOC adsorptivity. Journal of Environmental Management, 2003, 7, 975-979.	1.7	12
74	Preparation of porous sheet composite impregnated with TiO2 photocatalyst by a papermaking technique. Journal of Materials Science, 2007, 42, 6087-6092.	1.7	12
75	Self-assembly immobilization of hyaluronan thiosemicarbazone on a gold surface for cell culture applications. Carbohydrate Polymers, 2010, 82, 100-105.	5.1	12
76	Solvent-free alcohol oxidation using paper-structured catalysts: Flow dynamics and reaction kinetics. Chemical Engineering Journal, 2016, 285, 467-476.	6.6	12
77	Preparation and enzymatic behavior of surfactant-enveloped enzymes for glycosynthesis in nonaqueous aprotic media. Journal of Molecular Catalysis B: Enzymatic, 2010, 67, 225-230.	1.8	11
78	Biogas Production from Local Biomass Feedstock in the Mekong Delta and Its Utilization for a Direct Internal Reforming Solid Oxide Fuel Cell. Frontiers in Environmental Science, 2017, 5, .	1.5	11
79	Sizing mechanism of emulsion rosin size-alum systems. Nordic Pulp and Paper Research Journal, 1997, 12, 26-31.	0.3	10
80	Design of catalyst layers by using paper-like fiber/metal nanocatalyst composites for efficient NOX reduction. Composites Part B: Engineering, 2011, 42, 1108-1113.	5.9	10
81	One-Step Synthesis of Cellulose from Cellobiose via Protic Acid-Assisted Enzymatic Dehydration in Aprotic Organic Media. Biomacromolecules, 2012, 13, 2716-2722.	2.6	10
82	Concerted Catalysis by Nanocellulose and Proline in Organocatalytic Michael Additions. Molecules, 2019, 24, 1231.	1.7	10
83	Distribution characteristics of rosin size and their effect on the internal sizing of paper. Nordic Pulp and Paper Research Journal, 2000, 15, 416-421.	0.3	9
84	Direct Synthesis of Gold Nanocatalysts on TEMPO-oxidized Pulp Paper Containing Aldehyde Groups. BioResources, 2013, 8, .	0.5	9
85	Chitosan nanofiber-catalyzed highly selective Knoevenagel condensation in aqueous methanol. RSC Advances, 2020, 10, 26771-26776.	1.7	9
86	Chitooligomer-Immobilized Biointerfaces with Micropatterned Geometries for Unidirectional Alignment of Myoblast Cells. Biomolecules, 2016, 6, 12.	1.8	8
87	Dual-layered paper-structured catalysts for sequential desulfurization and methane-steam reforming of simulated biogas containing hydrogen sulfide. Journal of Materials Science, 2017, 52, 314-325.	1.7	8
88	Latent potentials of the white-rot basidiomycete Phanerochaete chrysosporium responsible for sesquiterpene metabolism: CYP5158A1 and CYP5144C8 decorate (E)-Î±-bisabolene. Enzyme and Microbial Technology, 2022, 158, 110037.	1.6	8
89	Sizing mechanism of rosin emulsion size-alum systems. Nordic Pulp and Paper Research Journal, 2001, 16, 96-102.	0.3	7
90	Morphological Imaging of Single Methylcellulose Chains and Their Thermoresponsive Assembly on a Highly Oriented Pyrolytic Graphite Surface. Biomacromolecules, 2007, 8, 3848-3852.	2.6	7

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91	Multiphase catalytic oxidation of alcohols over paper-structured catalysts with micrometer-size pores. Applied Catalysis A: General, 2014, 486, 201-209.	2.2	7
92	Sizing mechanism of emulsion rosin size-alum systems. Nordic Pulp and Paper Research Journal, 1997, 12, 182-188.	0.3	7
93	Impacts of amino acid substitutions in fungal cytochrome P450 monooxygenase (CYP57B3) on the effective production of 3Î„-hydroxygenistein. FEMS Microbiology Letters, 2017, 364, .	0.7	6
94	One-step synthesis of cellooligomer-conjugated gold nanoparticles in a water-in-oil emulsion system and their application in biological sensing. Colloids and Surfaces B: Biointerfaces, 2019, 178, 74-79.	2.5	6
95	Chemo-enzymatic preparation and characterization of cellulose nanofibers-graft-poly(lactic acid)s. European Polymer Journal, 2019, 114, 308-318.	2.6	6
96	Hybrid immobilization of galactosyl lactose and cellobiose on a gold substrate to modulate biological responses. Carbohydrate Polymers, 2013, 92, 374-379.	5.1	5
97	Direct stimulation of cellular immune response via TLR2 signaling triggered by contact with hybrid glyco-biointerfaces composed of chitohexaose and cellohexaose. Colloids and Surfaces B: Biointerfaces, 2019, 175, 517-522.	2.5	5
98	Enzymatic Preparation and Characterization of Spherical Microparticles Composed of Artificial Lignin and TEMPO-Oxidized Cellulose Nanofiber. Nanomaterials, 2021, 11, 917.	1.9	5
99	Surface Morphology and Wetting Characteristics of Sized Cellulose Imitations. Journal of Fiber Science and Technology, 2006, 62, 89-94.	0.0	5
100	Preparation of porous paper composites with ruthenium hydroxide and catalytic alcohol oxidation in a multiphase gasâ€“liquidâ€“solid reaction. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 184, 7-13.	1.7	4
101	Nanocellulose enriches enantiomers in asymmetric aldol reactions. RSC Advances, 2020, 10, 37064-37071.	1.7	4
102	Sizing Response Factors Characterized by XPS/PyGC Comparative Analysis. Journal of Fiber Science and Technology, 2003, 59, 266-271.	0.0	4
103	Water- and oil-penetration resistances of handsheets prepared by internal addition of diperfluoroalkylethyl phosphate: Influence of cationic polymers co-added. Nordic Pulp and Paper Research Journal, 2005, 20, 496-501.	0.3	3
104	Synthesis of Nâ€methylmorpholine Nâ€(¹⁷Oâ€oxide) and Nâ€methylmorpholine ¹⁵Nâ€(¹⁷Oâ€oxide). Journal of Labelled Compounds and Radiopharmaceuticals, 2010, 53, 78-80.	0.5	3
105	Oneâ€Step Lactosylation of Hydrophobic Alcohols by Nonaqueous Biocatalysis. ChemCatChem, 2010, 2, 950-952.	1.8	3
106	On-Paper Synthesis of Nickel Nanoparticles and Catalytic Propane Steam Reforming for Efficient Hydrogen Production. Heat Transfer Engineering, 2013, 34, 889-895.	1.2	3
107	Spatial Geometries of Self-Assembled Chitohexaose Monolayers Regulate Myoblast Fusion. International Journal of Molecular Sciences, 2016, 17, 686.	1.8	3
108	Two-dimensional XPS Analysis of Rosin Distribution in Paper Sheets Tub-sized with Dispersed Rosin Size.. Journal of Fiber Science and Technology, 2001, 57, 212-219.	0.0	2

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109	Fiber charge characteristics of pulp suspension containing aluminum sulfate. Journal of Wood Science, 2002, 48, 38-45.	0.9	2
110	Roles of Aluminum Sulfate in Rosin Sizing. Journal of Fiber Science and Technology, 2003, 59, 353-357.	0.0	2
111	Multilayer-stacked paper-structured catalysts for microflow Suzukiâ€“Miyaura cross-coupling reaction. Reaction Kinetics, Mechanisms and Catalysis, 2017, 121, 523-537.	0.8	2
112	Preparation of Cellobiose-conjugated Polyacrylamide and its Interaction with a Cellulose Matrix for Papermaking Application. Journal of Fiber Science and Technology, 2009, 65, 212-217.	0.0	2
113	Paper-structured Catalysts with Porous Fiber Networks for Fischer-Tropsch Synthesis. Palpu Chongi Gisul/Journal of Korea Technical Association of the Pulp and Paper Industry, 2016, 48, 32.	0.1	2
114	Activated Carbon Water Purification Filter Prepared by Wet Molding with a DualPolyelectrolyte Retention System. Journal of Fiber Science and Technology, 2011, 67, 81-85.	0.0	1
115	Study on Fuel Composition for the Performance Enhancement of Solid Oxide Fuel Cell Operated with Biodiesel Fuel. ECS Transactions, 2013, 57, 3005-3011.	0.3	1
116	On-paper Synthesis of Metal Nanoparticles for Catalytic Applications. Journal of Fiber Science and Technology, 2011, 67, 141-152.	0.0	1
117	Specific Attraction at the Carboxyl Terminus of Fatty Acid/Oxidized Aluminum Interface for the Sizing Appearance of Fiber-network Materials. Journal of Fiber Science and Technology, 2009, 65, 332-337.	0.0	0
118	Al-Doped ZnO Film as a Transparent Conductive Substrate in Indoline-Sensitized Nanoporous ZnO Solar Cell.. Materials Research Society Symposia Proceedings, 2012, 1494, 345-350.	0.1	0
119	Facile and direct synthesis of long-chain chitin from chitobiose via proton-assisted nonaqueous biocatalysis. Journal of Molecular Catalysis B: Enzymatic, 2013, 87, 69-74.	1.8	0
120	Molecular Design of Water-soluble Polymers in Paper Chemistry. Journal of Fiber Science and Technology, 2000, 56, P.141-P.145.	0.0	0
121	X-Ray Diffraction for Surface and Interface Analyses. Journal of Fiber Science and Technology, 2005, 61, P.58-P.62.	0.0	0
122	Highly Sensitive Sizing Response Induced by 2-Bromination of Fatty Acids and their Pairing with Anchor Sites Formed on Paper Surfaces. Journal of Fiber Science and Technology, 2010, 66, 284-287.	0.0	0
123	Materials Design Inspired by Paper and Cellulose Architectures. Journal of Fiber Science and Technology, 2017, 73, P-195-P-196.	0.0	0
124	Interfacial Design of Glyco-nanolayers for Cell Adhesion. Journal of the Adhesion Society of Japan, 2020, 56, 57-62.	0.0	0
125	Emerging Functions of Nano-Organized Polysaccharides. Nanomaterials, 2022, 12, 1277.	1.9	0