Masato Takeuchi

List of Publications by Year
in descending order

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85	11,380	109137	56606
papers	citations	35 h-index	83 g-index

88	88	88	13679
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Understanding TiO₂ Photocatalysis: Mechanisms and Materials. Chemical Reviews, 2014, 114, 9919-9986.	23.0	4,658
2	The design and development of highly reactive titanium oxide photocatalysts operating under visible light irradiation. Journal of Catalysis, 2003, 216, 505-516.	3.1	1,529
3	The effect of ultraviolet functionalization of titanium on integration with bone. Biomaterials, 2009, 30, 1015-1025.	5.7	444
4	Degradation of propanol diluted in water under visible light irradiation using metal ion-implanted titanium dioxide photocatalysts. Journal of Photochemistry and Photobiology A: Chemistry, 2002, 148, 257-261.	2.0	434
5	Photocatalysis for new energy production. Catalysis Today, 2007, 122, 51-61.	2.2	361
6	Mechanism of Photoinduced Superhydrophilicity on the TiO2Photocatalyst Surface. Journal of Physical Chemistry B, 2005, 109, 15422-15428.	1.2	259
7	Time-dependent degradation of titanium osteoconductivity: An implication of biological aging of implant materials. Biomaterials, 2009, 30, 5352-5363.	5.7	246
8	Design of unique titanium oxide photocatalysts by an advanced metal ion-implantation method and photocatalytic reactions under visible light irradiation. Research on Chemical Intermediates, 1998, 24, 143-149.	1.3	230
9	Characterization of Titaniumâ^'Silicon Binary Oxide Catalysts Prepared by the Solâ^'Gel Method and Their Photocatalytic Reactivity for the Liquid-Phase Oxidation of 1-Octanol. Journal of Physical Chemistry B, 1998, 102, 5870-5875.	1.2	184
10	Title is missing!. Catalysis Letters, 2000, 67, 135-137.	1.4	180
11	THE PREPARATION AND CHARACTERIZATION OF HIGHLY EFFICIENT TITANIUM OXIDEâ€"BASED PHOTOFUNCTIONAL MATERIALS. Annual Review of Materials Research, 2005, 35, 1-27.	4.3	177
12	Photocatalytic water splitting using Pt-loaded visible light-responsive TiO2 thin film photocatalysts. Catalysis Today, 2007, 120, 133-138.	2.2	174
13	Recent advances in visible-light-responsive photocatalysts for hydrogen production and solar energy conversion â€" from semiconducting TiO2 to MOF/PCP photocatalysts. Physical Chemistry Chemical Physics, 2013, 15, 13243.	1.3	139
14	Investigations of the Structure of H2O Clusters Adsorbed on TiO2Surfaces by Near-Infrared Absorption Spectroscopy. Journal of Physical Chemistry B, 2005, 109, 7387-7391.	1.2	130
15	Design and development of titanium oxide photocatalysts operating under visible and UV light irradiation.. Current Opinion in Solid State and Materials Science, 2002, 6, 381-388.	5.6	128
16	Photocatalytic oxidation of acetaldehyde with oxygen on TiO2/ZSM-5 photocatalysts: Effect of hydrophobicity of zeolites. Journal of Catalysis, 2007, 246, 235-240.	3.1	118
17	Efficient removal of toluene and benzene in gas phase by the TiO2/Y-zeolite hybrid photocatalyst. Journal of Hazardous Materials, 2012, 237-238, 133-139.	6.5	117
18	Enhancement of photocatalytic activity of P25 TiO2 by vanadium-ion implantation under visible light irradiation. Journal of Colloid and Interface Science, 2007, 311, 497-501.	5.0	110

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19	Enhanced osteoblast function on ultraviolet light-treated zirconia. Biomaterials, 2009, 30, 1273-1280.	5.7	94
20	Design and development of second-generation titanium oxide photocatalysts to better our environmentâ€"approaches in realizing the use of visible light. International Journal of Photoenergy, 2001, 3, 89-94.	1.4	92
21	Extending the Photoresponse of TiO2to the Visible Light Region:Â Photoelectrochemical Behavior of TiO2Thin Films Prepared by the Radio Frequency Magnetron Sputtering Deposition Method. Journal of Physical Chemistry B, 2006, 110, 5537-5541.	1.2	92
22	Preparation of efficient titanium oxide photocatalysts by an ionized cluster beam (ICB) method and their photocatalytic reactivities for the purification of water. Catalysis Today, 2000, 63, 63-69.	2.2	85
23	Recent advances in visible light-responsive titanium oxide-based photocatalysts. Research on Chemical Intermediates, 2010, 36, 327-347.	1.3	82
24	Preparation of Visible Light-responsive TiO2Thin Film Photocatalysts by an RF Magnetron Sputtering Deposition Method and Their Photocatalytic Reactivity. Chemistry Letters, 2005, 34, 616-617.	0.7	77
25	Dehydration and hydration behavior of metal-salt-modified materials for chemical heat pumps. Applied Thermal Engineering, 2013, 50, 1639-1644.	3.0	72
26	States of H2O adsorbed on oxides: An investigation by near and mid infrared spectroscopy. Applied Catalysis A: General, 2006, 307, 13-20.	2.2	71
27	Verification of the Photoadsorption of H2O Molecules on TiO2Semiconductor Surfaces by Vibrational Absorption Spectroscopy. Journal of Physical Chemistry C, 2007, 111, 9811-9817.	1.5	69
28	Title is missing!. Catalysis Letters, 2000, 66, 185-187.	1.4	54
29	Effect of H2O vapor addition on the photocatalytic oxidation of ethanol, acetaldehyde and acetic acid in the gas phase on TiO2 semiconductor powders. Applied Catalysis B: Environmental, 2010, 96, 218-223.	10.8	53
30	Evaluation of the Adsorption States of H₂O on Oxide Surfaces by Vibrational Absorption: Near- and Mid-Infrared Spectroscopy. Journal of Near Infrared Spectroscopy, 2009, 17, 373-384.	0.8	50
31	Preparation of the visible light responsive N3â^'-doped WO3 photocatalyst by a thermal decomposition of ammonium paratungstate. Applied Catalysis B: Environmental, 2011, 110, 1-5.	10.8	49
32	Preparation of Titaniumâ^'Silicon Binary Oxide Thin Film Photocatalysts by an Ionized Cluster Beam Deposition Method. Their Photocatalytic Activity and Photoinduced Super-Hydrophilicity. Journal of Physical Chemistry B, 2003, 107, 14278-14282.	1.2	47
33	Enhancement of the photocatalytic reactivity of TiO2 nano-particles by a simple mechanical blending with hydrophobic mordenite (MOR) zeolite. Applied Catalysis B: Environmental, 2009, 89, 406-410.	10.8	44
34	Preparation of TiO2 Thin Film Photocatalysts Working under Visible Light Irradiation by Applying a RF Magnetron Sputtering Deposition Method.. Hyomen Kagaku, 2001, 22, 561-565.	0.0	41
35	Photocatalytic Decomposition of Formic Acid Under Visible Light Irradiation Over V-ion-implanted TiO2 Thin Film Photocatalysts Prepared on Quartz Substrate by Ionized Cluster Beam (ICB) Deposition Method. Catalysis Letters, 2006, 106, 67-70.	1.4	38
36	Ion engineering techniques for the preparation of the highly effective TiO2 photocatalysts operating under visible light irradiation. Research on Chemical Intermediates, 2012, 38, 1261-1277.	1.3	33

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37	Investigation of NH₃ and NH₄⁺ adsorbed on ZSM-5 zeolites by near and middle infrared spectroscopy. Catalysis Science and Technology, 2015, 5, 4587-4593.	2.1	32
38	The effect of the hydrothermal treatment with aqueous NaOH solution on the photocatalytic and photoelectrochemical properties of visible light-responsive TiO2 thin films. Catalysis Today, 2008, 132, 159-164.	2.2	31
39	Photocatalytic Decomposition of Water on Double-Layered Visible Light-Responsive TiO2 Thin Films Prepared by a Magnetron Sputtering Deposition Method. Catalysis Letters, 2010, 135, 10-15.	1.4	30
40	Design and development of unique titanium oxide photocatalysts capable of operating under visible light irradiation by an advanced metal ion-implantation method. Studies in Surface Science and Catalysis, 1999, , 305-310.	1.5	29
41	Gamma ray treatment enhances bioactivity and osseointegration capability of titanium. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2012, 100B, 2279-2287.	1.6	29
42	Application of Highly Functional Ti-Oxide-Based Photocatalysts in Clean Technologies. Topics in Catalysis, 2009, 52, 1651-1659.	1.3	28
43	Photocatalytic Hydrogen Production from Aqueous Solutions of Alcohol as Model Compounds of Biomass Using Visible Light-Responsive TiO2 Thin Films. Catalysis Letters, 2009, 127, 39-43.	1.4	23
44	Preparation of Crystalline TiO2Thin Film Photocatalysts on Polycarbonate Substrates by a RF-magnetron Sputtering Deposition Method. Chemistry Letters, 2006, 35, 904-905.	0.7	22
45	Fourier-Transform Infrared Analysis of the Dehydration Mechanism of Mg(OH)₂ and Chemically Modified Mg(OH)₂. Journal of Physical Chemistry C, 2021, 125, 5559-5571.	1.5	22
46	Frontiers of Photo-catalysis and Photo-reaction at Solid Surfaces. Design and Development of a Titanium Oxide Photocatalyst Able to Work Effectively under Visible Light Irradiation by an Advanced Metal Ion-Implantation Method.. Hyomen Kagaku, 1999, 20, 60-65.	0.0	22
47	Effect of Pt loading on the photocatalytic reactivity of titanium oxide thin films prepared by ion engineering techniques. Research on Chemical Intermediates, 2003, 29, 619-629.	1.3	21
48	Comparison of the Effect of Coaddition of Li Compounds and Addition of a Single Li Compound on Reactivity and Structure of Magnesium Hydroxide. ACS Omega, 2019, 4, 17752-17761.	1.6	19
49	Investigation on the Mechanisms of Mg(OH)₂ Dehydration and MgO Hydration by Near-Infrared Spectroscopy. Journal of Physical Chemistry C, 2021, 125, 10937-10947.	1.5	19
50	Development of separate-type Pt-free photofuel cells based on visible-light responsive TiO2 photoanode. Journal of Materials Chemistry, 2012, 22, 10460.	6.7	18
51	Preparation of Tiâ€“Si binary oxide thin film photocatalysts by the application of an ionized cluster beam method. Journal of Synchrotron Radiation, 2001, 8, 643-644.	1.0	16
52	Characterization of Ti/Si binary oxides prepared by the sol-gel method and their photocatalytic properties: The hydrogenation and hydrogenolysis of CH3CCH with H2O. Korean Journal of Chemical Engineering, 1998, 15, 491-495.	1.2	14
53	A potential therapeutic system for Alzheimerâ€™s disease using adsorbents with alkyl ligands for removal of blood amyloid Î². Journal of Artificial Organs, 2013, 16, 211-217.	0.4	14
54	Effect of defect-induced carrier scattering on the thermoelectric power of graphene. Applied Physics Letters, 2017, 110, 263501.	1.5	14

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55	Photoinduced Superhydrophilic Properties of Ti-B Binary Oxide Thin Films and Their Photocatalytic Reactivity for the Decomposition of NO. Journal of Nanoscience and Nanotechnology, 2001, 1, 337-342.	0.9	13
56	Preparation and Characterization of the Visible Light Responsive TiO₂ Thin Film Photocatalysts Prepared by Magnetron Sputtering Method and Their Photocatalytic Activities for the Water Splitting Reactions. Materials Science Forum, 2005, 486-487, 81-84.	0.3	13
57	Highly photosensitive graphene field-effect transistor with optical memory function. Scientific Reports, 2015, 5, 15491.	1.6	13
58	Morphologic Control of Pt Supported Titanate Nanotubes and Their Photocatalytic Property. Catalysis Letters, 2009, 130, 28-36.	1.4	12
59	Preparation of the visible light responsive TiO2 thin film photocatalysts by the RF magnetron sputtering deposition method. Research on Chemical Intermediates, 2009, 35, 973-983.	1.3	12
60	Separate evolution of H2 and O2 from H2O on visible light-responsive TiO2 thin film photocatalysts prepared by an RF magnetron sputtering method. Research on Chemical Intermediates, 2009, 35, 997-1004.	1.3	12
61	Separate-type Pt-free photofuel cell based on a visible light-responsive TiO2 photoanode: Effect of hydrofluoric acid treatment of the photoanode. Applied Catalysis A: General, 2013, 458, 162-168.	2.2	12
62	Fourier-transform infrared and X-ray diffraction analyses of the hydration reaction of pure magnesium oxide and chemically modified magnesium oxide. RSC Advances, 2021, 11, 24292-24311.	1.7	12
63	Structural evaluation and photocatalytic properties of Pt-supported titanate nanotubes. Research on Chemical Intermediates, 2008, 34, 339-346.	1.3	11
64	Near infrared study on the adsorption states of NH₃ and NH₄⁺ on hydrated ZSM-5 zeolites. Journal of Near Infrared Spectroscopy, 2019, 27, 241-249.	0.8	9
65	Hydration of LiOH and LiClâ”€Near-Infrared Spectroscopic Analysis. ACS Omega, 2021, 6, 33075-33084.	1.6	9
66	Photo-induced Superhydrophilicity on TiO2 Thin Films Prepared by an Ionized Cluster Beam Deposition Method. Catalysis Letters, 2009, 131, 189-193.	1.4	8
67	Effect of the sputtering parameters on the physical properties and photocatalytic reactivity of TiO2 thin films prepared by an RF magnetron sputtering deposition method. Research on Chemical Intermediates, 2013, 39, 1593-1602.	1.3	8
68	Preparation of efficient titanium oxide photocatalysts by an ionized cluster beam method and their application for the degradation of propanol diluted in water. Studies in Surface Science and Catalysis, 2000, , 1931-1936.	1.5	7
69	The Preparation of Visible Light-Responsive TiO₂ Thin Films by Applying a RF-Magnetron Sputtering Deposition Method and Their Photocatalytic Reactivity for the Decomposition of Water with a Separate Evolution of H₂ and O₂. Key Engineering Materials, 2006, 317-318, 823-826.	0.4	7
70	Evaluation of Hydrophilic/Hydrophobic Properties and Wettability of Oxide Surfaces. Hyomen Kagaku, 2009, 30, 148-156.	0.0	7
71	Photocatalytic oxidation of 2-propanol under visible light irradiation on TiO2 thin films prepared by an RF magnetron sputtering deposition method. Research on Chemical Intermediates, 2012, 38, 1249-1259.	1.3	7
72	Simple evaluation of the adsorption states of benzene molecule on the hydroxyl, H+ and Na+ sites of Y-zeolite surfaces by using UV absorption spectroscopy. Research on Chemical Intermediates, 2014, 40, 2315-2325.	1.3	6

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73	Simultaneous Analyses of Hydrazine Molecules and Hydrazinium Ions in Aqueous Solution and Adsorbed on Catalyst Surfaces by Near-infrared Spectroscopy. Chemistry Letters, 2019, 48, 738-741.	0.7	5
74	Enhanced photoelectrochemical properties of visible light-responsive TiO2 photoanode for separate-type Pt-free photofuel cells by Rh3+ addition. Research on Chemical Intermediates, 2013, 39, 1603-1611.	1.3	4
75	Photocatalytic oxidation of acetaldehyde by hybrid Pt/WO3â€“MOR photocatalysts under visible or sunlight irradiation. Research on Chemical Intermediates, 2014, 40, 23-31.	1.3	4
76	Fabrication of Ag/ZnO nanowire thin films and their photocatalytic reactivities. Research on Chemical Intermediates, 2020, 46, 4883-4896.	1.3	4
77	Vibrational spectroscopic evaluation of hydrophilic or hydrophobic properties of oxide surfaces. Journal of Raman Spectroscopy, 2022, 53, 1793-1804.	1.2	4
78	Photocatalytic activity of visible light-responsive TiO2 thin films deposited on various anodized Ti-metal substrates by a RF magnetron sputtering method. Research on Chemical Intermediates, 2010, 36, 319-326.	1.3	3
79	Preparation of Highly Transparent TiO2-based Thin Film Photocatalysts by an Ion Engineering Method: Ionized Cluster Beam Deposition. Nanostructure Science and Technology, 2010, , 133-151.	0.1	3
80	Development of Well-Defined Visible Light-Responsive TiO2 Thin Film Photocatalysts by Applying a RF-Magnetron Sputtering Deposition Method. Nanostructure Science and Technology, 2010, , 301-317.	0.1	3
81	Investigations of the Photoinduced Superhydrophilicity of the TiO2 Photocatalyst Surface by Near-Infrared Spectroscopy. Nanostructure Science and Technology, 2010, , 527-542.	0.1	2
82	Preparation of Titaniumâ€”Silicon Binary Oxide Thin Film Photocatalysts by an Ionized Cluster Beam Deposition Method. Their Photocatalytic Activity and Photoinduced Super-Hydrophilicity.. ChemInform, 2004, 35, no.	0.1	1
83	Photocatalytic Hydrogen Production from Water on Visible Light-Responsive TiO2 Thin Films Under Solar Light Irradiation. Nanostructure Science and Technology, 2010, , 545-560.	0.1	1
84	Investigation of the Photoinduced Hydrophilic Properties of TiÐž2 Surface by Near Infrared Spectroscopy. Studies in Surface Science and Catalysis, 2007, , 441-444.	1.5	0
85	Development of hight active visible light-responsive TiO2 photocatalysts by applying ion engineering techniques. , 2021, , 171-182.		0