

# Masato Takeuchi

## List of Publications by Year in descending order

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85  
papers

11,380  
citations

109137

35  
h-index

56606

83  
g-index

88  
all docs

88  
docs citations

88  
times ranked

13679  
citing authors

#	ARTICLE	IF	CITATIONS
1	Vibrational spectroscopic evaluation of hydrophilic or hydrophobic properties of oxide surfaces. <i>Journal of Raman Spectroscopy</i> , 2022, 53, 1793-1804.	1.2	4
2	Fourier-transform infrared and X-ray diffraction analyses of the hydration reaction of pure magnesium oxide and chemically modified magnesium oxide. <i>RSC Advances</i> , 2021, 11, 24292-24311.	1.7	12
3	Fourier-Transform Infrared Analysis of the Dehydration Mechanism of Mg(OH) <sub>2</sub> and Chemically Modified Mg(OH) <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , 2021, 125, 5559-5571.	1.5	22
4	Investigation on the Mechanisms of Mg(OH) <sub>2</sub> Dehydration and MgO Hydration by Near-Infrared Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 10937-10947.	1.5	19
5	Development of high active visible light-responsive TiO <sub>2</sub> photocatalysts by applying ion engineering techniques. , 2021, , 171-182.		0
6	Hydration of LiOH and LiClâ€”Near-Infrared Spectroscopic Analysis. <i>ACS Omega</i> , 2021, 6, 33075-33084.	1.6	9
7	Fabrication of Ag/ZnO nanowire thin films and their photocatalytic reactivities. <i>Research on Chemical Intermediates</i> , 2020, 46, 4883-4896.	1.3	4
8	Comparison of the Effect of Coaddition of Li Compounds and Addition of a Single Li Compound on Reactivity and Structure of Magnesium Hydroxide. <i>ACS Omega</i> , 2019, 4, 17752-17761.	1.6	19
9	Simultaneous Analyses of Hydrazine Molecules and Hydrazinium Ions in Aqueous Solution and Adsorbed on Catalyst Surfaces by Near-infrared Spectroscopy. <i>Chemistry Letters</i> , 2019, 48, 738-741.	0.7	5
10	Near infrared study on the adsorption states of NH <sub>3</sub> and NH <sub>4</sub> <sup>+</sup> on hydrated ZSM-5 zeolites. <i>Journal of Near Infrared Spectroscopy</i> , 2019, 27, 241-249.	0.8	9
11	Effect of defect-induced carrier scattering on the thermoelectric power of graphene. <i>Applied Physics Letters</i> , 2017, 110, 263501.	1.5	14
12	Highly photosensitive graphene field-effect transistor with optical memory function. <i>Scientific Reports</i> , 2015, 5, 15491.	1.6	13
13	Investigation of NH <sub>3</sub> and NH <sub>4</sub> <sup>+</sup> adsorbed on ZSM-5 zeolites by near and middle infrared spectroscopy. <i>Catalysis Science and Technology</i> , 2015, 5, 4587-4593.	2.1	32
14	Photocatalytic oxidation of acetaldehyde by hybrid Pt/WO <sub>3</sub> â€”MOR photocatalysts under visible or sunlight irradiation. <i>Research on Chemical Intermediates</i> , 2014, 40, 23-31.	1.3	4
15	Understanding TiO <sub>2</sub> Photocatalysis: Mechanisms and Materials. <i>Chemical Reviews</i> , 2014, 114, 9919-9986.	23.0	4,658
16	Simple evaluation of the adsorption states of benzene molecule on the hydroxyl, H <sup>+</sup> and Na <sup>+</sup> sites of Y-zeolite surfaces by using UV absorption spectroscopy. <i>Research on Chemical Intermediates</i> , 2014, 40, 2315-2325.	1.3	6
17	Effect of the sputtering parameters on the physical properties and photocatalytic reactivity of TiO <sub>2</sub> thin films prepared by an RF magnetron sputtering deposition method. <i>Research on Chemical Intermediates</i> , 2013, 39, 1593-1602.	1.3	8
18	Enhanced photoelectrochemical properties of visible light-responsive TiO <sub>2</sub> photoanode for separate-type Pt-free photofuel cells by Rh <sup>3+</sup> addition. <i>Research on Chemical Intermediates</i> , 2013, 39, 1603-1611.	1.3	4

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19	A potential therapeutic system for Alzheimer's disease using adsorbents with alkyl ligands for removal of blood amyloid $\beta$ . Journal of Artificial Organs, 2013, 16, 211-217.	0.4	14
20	Separate-type Pt-free photofuel cell based on a visible light-responsive TiO <sub>2</sub> photoanode: Effect of hydrofluoric acid treatment of the photoanode. Applied Catalysis A: General, 2013, 458, 162-168.	2.2	12
21	Recent advances in visible-light-responsive photocatalysts for hydrogen production and solar energy conversion from semiconducting TiO <sub>2</sub> to MOF/PCP photocatalysts. Physical Chemistry Chemical Physics, 2013, 15, 13243.	1.3	139
22	Dehydration and hydration behavior of metal-salt-modified materials for chemical heat pumps. Applied Thermal Engineering, 2013, 50, 1639-1644.	3.0	72
23	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
24	Efficient removal of toluene and benzene in gas phase by the TiO <sub>2</sub> /Y-zeolite hybrid photocatalyst. Journal of Hazardous Materials, 2012, 237-238, 133-139.	6.5	117
25	Development of separate-type Pt-free photofuel cells based on visible-light responsive TiO <sub>2</sub> photoanode. Journal of Materials Chemistry, 2012, 22, 10460.	6.7	18
26	Photocatalytic oxidation of 2-propanol under visible light irradiation on TiO <sub>2</sub> thin films prepared by an RF magnetron sputtering deposition method. Research on Chemical Intermediates, 2012, 38, 1249-1259.	1.3	7
27	Ion engineering techniques for the preparation of the highly effective TiO <sub>2</sub> photocatalysts operating under visible light irradiation. Research on Chemical Intermediates, 2012, 38, 1261-1277.	1.3	33
28	Preparation of the visible light responsive N <sup>3+</sup> -doped WO <sub>3</sub> photocatalyst by a thermal decomposition of ammonium paratungstate. Applied Catalysis B: Environmental, 2011, 110, 1-5.	10.8	49
29	Photocatalytic Decomposition of Water on Double-Layered Visible Light-Responsive TiO <sub>2</sub> Thin Films Prepared by a Magnetron Sputtering Deposition Method. Catalysis Letters, 2010, 135, 10-15.	1.4	30
30	Photocatalytic activity of visible light-responsive TiO <sub>2</sub> 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
31	Recent advances in visible light-responsive titanium oxide-based photocatalysts. Research on Chemical Intermediates, 2010, 36, 327-347.	1.3	82
32	Effect of H <sub>2</sub> O vapor addition on the photocatalytic oxidation of ethanol, acetaldehyde and acetic acid in the gas phase on TiO <sub>2</sub> semiconductor powders. Applied Catalysis B: Environmental, 2010, 96, 218-223.	10.8	53
33	Preparation of Highly Transparent TiO <sub>2</sub> -based Thin Film Photocatalysts by an Ion Engineering Method: Ionized Cluster Beam Deposition. Nanostructure Science and Technology, 2010, , 133-151.	0.1	3
34	Development of Well-Defined Visible Light-Responsive TiO <sub>2</sub> Thin Film Photocatalysts by Applying a RF-Magnetron Sputtering Deposition Method. Nanostructure Science and Technology, 2010, , 301-317.	0.1	3
35	Photocatalytic Hydrogen Production from Water on Visible Light-Responsive TiO <sub>2</sub> Thin Films Under Solar Light Irradiation. Nanostructure Science and Technology, 2010, , 545-560.	0.1	1
36	Investigations of the Photoinduced Superhydrophilicity of the TiO <sub>2</sub> Photocatalyst Surface by Near-Infrared Spectroscopy. Nanostructure Science and Technology, 2010, , 527-542.	0.1	2

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37	Evaluation of Hydrophilic/Hydrophobic Properties and Wettability of Oxide Surfaces. Hyomen Kagaku, 2009, 30, 148-156.	0.0	7
38	Photocatalytic Hydrogen Production from Aqueous Solutions of Alcohol as Model Compounds of Biomass Using Visible Light-Responsive TiO <sub>2</sub> Thin Films. Catalysis Letters, 2009, 127, 39-43.	1.4	23
39	Morphologic Control of Pt Supported Titanate Nanotubes and Their Photocatalytic Property. Catalysis Letters, 2009, 130, 28-36.	1.4	12
40	Photo-induced Superhydrophilicity on TiO <sub>2</sub> Thin Films Prepared by an Ionized Cluster Beam Deposition Method. Catalysis Letters, 2009, 131, 189-193.	1.4	8
41	Preparation of the visible light responsive TiO <sub>2</sub> thin film photocatalysts by the RF magnetron sputtering deposition method. Research on Chemical Intermediates, 2009, 35, 973-983.	1.3	12
42	Separate evolution of H <sub>2</sub> and O <sub>2</sub> from H <sub>2</sub> O on visible light-responsive TiO <sub>2</sub> thin film photocatalysts prepared by an RF magnetron sputtering method. Research on Chemical Intermediates, 2009, 35, 997-1004.	1.3	12
43	Application of Highly Functional Ti-Oxide-Based Photocatalysts in Clean Technologies. Topics in Catalysis, 2009, 52, 1651-1659.	1.3	28
44	The effect of ultraviolet functionalization of titanium on integration with bone. Biomaterials, 2009, 30, 1015-1025.	5.7	444
45	Enhanced osteoblast function on ultraviolet light-treated zirconia. Biomaterials, 2009, 30, 1273-1280.	5.7	94
46	Enhancement of the photocatalytic reactivity of TiO <sub>2</sub> nano-particles by a simple mechanical blending with hydrophobic mordenite (MOR) zeolite. Applied Catalysis B: Environmental, 2009, 89, 406-410.	10.8	44
47	Time-dependent degradation of titanium osteoconductivity: An implication of biological aging of implant materials. Biomaterials, 2009, 30, 5352-5363.	5.7	246
48	Evaluation of the Adsorption States of H <sub>2</sub> O on Oxide Surfaces by Vibrational Absorption: Near- and Mid-Infrared Spectroscopy. Journal of Near Infrared Spectroscopy, 2009, 17, 373-384.	0.8	50
49	The effect of the hydrothermal treatment with aqueous NaOH solution on the photocatalytic and photoelectrochemical properties of visible light-responsive TiO <sub>2</sub> thin films. Catalysis Today, 2008, 132, 159-164.	2.2	31
50	Structural evaluation and photocatalytic properties of Pt-supported titanate nanotubes. Research on Chemical Intermediates, 2008, 34, 339-346.	1.3	11
51	Verification of the Photoadsorption of H <sub>2</sub> O Molecules on TiO <sub>2</sub> Semiconductor Surfaces by Vibrational Absorption Spectroscopy. Journal of Physical Chemistry C, 2007, 111, 9811-9817.	1.5	69
52	Investigation of the Photoinduced Hydrophilic Properties of TiO <sub>2</sub> Surface by Near Infrared Spectroscopy. Studies in Surface Science and Catalysis, 2007, , 441-444.	1.5	0
53	Photocatalytic water splitting using Pt-loaded visible light-responsive TiO <sub>2</sub> thin film photocatalysts. Catalysis Today, 2007, 120, 133-138.	2.2	174
54	Enhancement of photocatalytic activity of P25 TiO <sub>2</sub> 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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55	Photocatalytic oxidation of acetaldehyde with oxygen on TiO <sub>2</sub> /ZSM-5 photocatalysts: Effect of hydrophobicity of zeolites. <i>Journal of Catalysis</i> , 2007, 246, 235-240.	3.1	118
56	Photocatalysis for new energy production. <i>Catalysis Today</i> , 2007, 122, 51-61.	2.2	361
57	Extending the Photoresponse of TiO <sub>2</sub> to the Visible Light Region: A Photoelectrochemical Behavior of TiO <sub>2</sub> Thin Films Prepared by the Radio Frequency Magnetron Sputtering Deposition Method. <i>Journal of Physical Chemistry B</i> , 2006, 110, 5537-5541.	1.2	92
58	Preparation of Crystalline TiO <sub>2</sub> Thin Film Photocatalysts on Polycarbonate Substrates by a RF-magnetron Sputtering Deposition Method. <i>Chemistry Letters</i> , 2006, 35, 904-905.	0.7	22
59	States of H <sub>2</sub> O adsorbed on oxides: An investigation by near and mid infrared spectroscopy. <i>Applied Catalysis A: General</i> , 2006, 307, 13-20.	2.2	71
60	Photocatalytic Decomposition of Formic Acid Under Visible Light Irradiation Over V-ion-implanted TiO <sub>2</sub> Thin Film Photocatalysts Prepared on Quartz Substrate by Ionized Cluster Beam (ICB) Deposition Method. <i>Catalysis Letters</i> , 2006, 106, 67-70.	1.4	38
61	The Preparation of Visible Light-Responsive TiO <sub>2</sub> Thin Films by Applying a RF-Magnetron Sputtering Deposition Method and Their Photocatalytic Reactivity for the Decomposition of Water with a Separate Evolution of H <sub>2</sub> and O <sub>2</sub> . <i>Key Engineering Materials</i> , 2006, 317-318, 823-826.	0.4	7
62	Preparation of Visible Light-responsive TiO <sub>2</sub> Thin Film Photocatalysts by an RF Magnetron Sputtering Deposition Method and Their Photocatalytic Reactivity. <i>Chemistry Letters</i> , 2005, 34, 616-617.	0.7	77
63	Preparation and Characterization of the Visible Light Responsive TiO <sub>2</sub> Thin Film Photocatalysts Prepared by Magnetron Sputtering Method and Their Photocatalytic Activities for the Water Splitting Reactions. <i>Materials Science Forum</i> , 2005, 486-487, 81-84.	0.3	13
64	THE PREPARATION AND CHARACTERIZATION OF HIGHLY EFFICIENT TITANIUM OXIDE-BASED PHOTOFUNCTIONAL MATERIALS. <i>Annual Review of Materials Research</i> , 2005, 35, 1-27.	4.3	177
65	Investigations of the Structure of H <sub>2</sub> O Clusters Adsorbed on TiO <sub>2</sub> Surfaces by Near-Infrared Absorption Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2005, 109, 7387-7391.	1.2	130
66	Mechanism of Photoinduced Superhydrophilicity on the TiO <sub>2</sub> Photocatalyst Surface. <i>Journal of Physical Chemistry B</i> , 2005, 109, 15422-15428.	1.2	259
67	Preparation of Titanium-Silicon Binary Oxide Thin Film Photocatalysts by an Ionized Cluster Beam Deposition Method. Their Photocatalytic Activity and Photoinduced Super-Hydrophilicity.. <i>ChemInform</i> , 2004, 35, no.	0.1	1
68	Effect of Pt loading on the photocatalytic reactivity of titanium oxide thin films prepared by ion engineering techniques. <i>Research on Chemical Intermediates</i> , 2003, 29, 619-629.	1.3	21
69	The design and development of highly reactive titanium oxide photocatalysts operating under visible light irradiation. <i>Journal of Catalysis</i> , 2003, 216, 505-516.	3.1	1,529
70	Preparation of Titanium-Silicon Binary Oxide Thin Film Photocatalysts by an Ionized Cluster Beam Deposition Method. Their Photocatalytic Activity and Photoinduced Super-Hydrophilicity. <i>Journal of Physical Chemistry B</i> , 2003, 107, 14278-14282.	1.2	47
71	Design and development of titanium oxide photocatalysts operating under visible and UV light irradiation.. <i>Current Opinion in Solid State and Materials Science</i> , 2002, 6, 381-388.	5.6	128
72	Degradation of propanol diluted in water under visible light irradiation using metal ion-implanted titanium dioxide photocatalysts. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2002, 148, 257-261.	2.0	434

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73	Photoinduced Superhydrophilic Properties of Ti-B Binary Oxide Thin Films and Their Photocatalytic Reactivity for the Decomposition of NO. <i>Journal of Nanoscience and Nanotechnology</i> , 2001, 1, 337-342.	0.9	13
74	Preparation of TiO <sub>2</sub> Thin Film Photocatalysts Working under Visible Light Irradiation by Applying a RF Magnetron Sputtering Deposition Method.. <i>Hyomen Kagaku</i> , 2001, 22, 561-565.	0.0	41
75	Design and development of second-generation titanium oxide photocatalysts to better our environment approaches in realizing the use of visible light. <i>International Journal of Photoenergy</i> , 2001, 3, 89-94.	1.4	92
76	Preparation of Ti-Si binary oxide thin film photocatalysts by the application of an ionized cluster beam method. <i>Journal of Synchrotron Radiation</i> , 2001, 8, 643-644.	1.0	16
77	Preparation of efficient titanium oxide photocatalysts by an ionized cluster beam (ICB) method and their photocatalytic reactivities for the purification of water. <i>Catalysis Today</i> , 2000, 63, 63-69.	2.2	85
78	Title is missing!. <i>Catalysis Letters</i> , 2000, 67, 135-137.	1.4	180
79	Title is missing!. <i>Catalysis Letters</i> , 2000, 66, 185-187.	1.4	54
80	Preparation of efficient titanium oxide photocatalysts by an ionized cluster beam method and their application for the degradation of propanol diluted in water. <i>Studies in Surface Science and Catalysis</i> , 2000, , 1931-1936.	1.5	7
81	Design and development of unique titanium oxide photocatalysts capable of operating under visible light irradiation by an advanced metal ion-implantation method. <i>Studies in Surface Science and Catalysis</i> , 1999, , 305-310.	1.5	29
82	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.. <i>Hyomen Kagaku</i> , 1999, 20, 60-65.	0.0	22
83	Design of unique titanium oxide photocatalysts by an advanced metal ion-implantation method and photocatalytic reactions under visible light irradiation. <i>Research on Chemical Intermediates</i> , 1998, 24, 143-149.	1.3	230
84	Characterization of Ti/Si binary oxides prepared by the sol-gel method and their photocatalytic properties: The hydrogenation and hydrogenolysis of CH <sub>3</sub> CCH with H <sub>2</sub> O. <i>Korean Journal of Chemical Engineering</i> , 1998, 15, 491-495.	1.2	14
85	Characterization of Titanium-Silicon Binary Oxide Catalysts Prepared by the Sol-Gel Method and Their Photocatalytic Reactivity for the Liquid-Phase Oxidation of 1-Octanol. <i>Journal of Physical Chemistry B</i> , 1998, 102, 5870-5875.	1.2	184