Tsuyoshi Ochiai

List of Publications by Year
in descending order

94 papers	2,955 citations	236612 25 h-index	168136 53 g-index
95 all docs	95 docs citations	95 times ranked	4237 citing authors

#	Article	IF	Citations
1	Photoelectrochemical properties of TiO2 photocatalyst and its applications for environmental purification. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2012, 13, 247-262.	5.6	513
2	Facile Fabrication and Photocatalytic Application of Ag Nanoparticles-TiO₂ Nanofiber Composites. Journal of Nanoscience and Nanotechnology, 2011, 11, 3692-3695.	0.9	260
3	Photoenergy conversion with TiO2 photocatalysis: New materials and recent applications. Electrochimica Acta, 2012, 84, 103-111.	2.6	245
4	Nanofibrous TiO₂-Core/Conjugated Polymer-Sheath Composites: Synthesis, Structural Properties and Photocatalytic Activity. Journal of Nanoscience and Nanotechnology, 2010, 10, 7951-7957.	0.9	115
5	Efficient electrochemical decomposition of perfluorocarboxylic acids by the use of a boron-doped diamond electrode. Diamond and Related Materials, 2011, 20, 64-67.	1.8	103
6	Antireflection and Self-Cleaning Properties of a Moth-Eye-Like Surface Coated with TiO₂ Particles. Langmuir, 2011, 27, 3275-3278.	1.6	100
7	Broad Spectrum Microbicidal Activity of Photocatalysis by TiO2. Catalysts, 2013, 3, 310-323.	1.6	90
8	Mesoporous TiO2Coreâ€“Shell Spheres Composed of Nanocrystals with Exposed High-Energy Facets: Facile Synthesis and Formation Mechanism. Langmuir, 2011, 27, 8500-8508.	1.6	89
9	Enhanced Solar Photothermal Catalysis over Solution Plasma Activated TiO₂. Advanced Science, 2020, 7, 2000204.	5.6	89
10	Hierarchical TiO2 spherical nanostructures with tunable pore size, pore volume, and specific surface area: facile preparation and high-photocatalytic performance. Catalysis Science and Technology, 2012, 2, 1933.	2.1	77
11	Theoretical Kinetic Analysis of Heterogeneous Photocatalysis by TiO2 Nanotube Arrays: the Effects of Nanotube Geometry on Photocatalytic Activity. Journal of Physical Chemistry C, 2012, 116, 7471-7479.	1.5	66
12	Antibacterial performance of a novel photocatalytic-coated cordierite foam for use in air cleaners. Applied Catalysis B: Environmental, 2011, 106, 592-599.	10.8	61
13	Rewritable Superhydrophilicâ"Superhydrophobic Patterns on a Sintered Titanium Dioxide Substrate. Langmuir, 2010, 26, 11628-11630.	1.6	58
14	Development of solar-driven electrochemical and photocatalytic water treatment system using a boron-doped diamond electrode and TiO2 photocatalyst. Water Research, 2010, 44, 904-910.	5.3	53
15	Fabrication and Application of TiO₂â€Based Superhydrophilicâ€“Superhydrophobic Patterns on Titanium Substrates for Offset Printing. Chemistry - an Asian Journal, 2009, 4, 984-988.	1.7	49
16	Fabrication of a TiO2 nanoparticles impregnated titanium mesh filter and its application for environmental purification. Catalysis Science and Technology, 2011, 1, 1324.	2.1	44
17	Visible-Light Overall Water Splitting by CdS/WO₃/CdWO₄ Tricomposite Photocatalyst Suppressing Photocorrosion. ACS Applied Energy Materials, 2018, 1, 6730-6735.	2.5	43
18	Theoretical Kinetic Analysis of Heterogeneous Photocatalysis: The Effects of Surface Trapping and Bulk Recombination through Defects. Journal of Physical Chemistry C, 2011, 115, 16037-16042.	1.5	40

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19	Fabrication and Photocatalytic Properties of TiO2 Nanotube Arrays Modified with Phosphate. Chemistry Letters, 2011, 40, 1107-1109.	0.7	37
20	Polymeric Adsorption of Methylene Blue in TiO₂ Colloidsâ€"Highly Sensitive Thermochromism and Selective Photocatalysis. Chemistry - A European Journal, 2012, 18, 12705-12711.	1.7	37
21	UV/Thermally Driven Rewritable Wettability Patterns on TiO₂â^'PDMS Composite Films. ACS Applied Materials & Interfaces, 2010, 2, 2485-2488.	4.0	33
22	Antibacterial Activity of Hydrophobic Composite Materials Containing a Visible-Light-Sensitive Photocatalyst. Journal of Nanotechnology, 2011, 2011, 1-7.	1.5	33
23	Preparation and Photocatalytic Activity of Robust Titania Monoliths for Water Remediation. ACS Applied Materials & Interfaces, 2013, 5, 500-504.	4.0	33
24	Efficient Decomposition of Perfluorocarboxylic Acids in Aqueous Suspensions of a TiO₂ Photocatalyst with Medium-Pressure Ultraviolet Lamp Irradiation under Atmospheric Pressure. Industrial & Engineering Chemistry Research, 2011, 50, 10943-10947.	1.8	29
25	Photocatalytic inactivation and removal of algae with TiO2-coated materials. Journal of Applied Electrochemistry, 2010, 40, 1737-1742.	1.5	27
26	Electrochemical inactivation kinetics of boron-doped diamond electrode on waterborne pathogens. Journal of Water and Health, 2011, 9, 534-543.	1.1	25
27	Development of an O₃-assisted photocatalytic water-purification unit by using a TiO₂modified titanium mesh filter. Catalysis Science and Technology, 2012, 2, 76-78.	2.1	25
28	Photocatalytic Decomposition of Cigarette Smoke Using a TiO₂-Impregnated Titanium Mesh Filter. Industrial & Engineering Chemistry Research, 2012, 51, 587-590.	1.8	25
29	Development of an Air-Purification Unit Using a Photocatalysis-Plasma Hybrid Reactor. Electrochemistry, 2011, 79, 838-841.	0.6	24
30	Development of a hybrid environmental purification unit by using of excimer VUV lamps with TiO2 coated titanium mesh filter. Chemical Engineering Journal, 2013, 218, 327-332.	6.6	24
31	Electron transfer of quinone self-assembled monolayers on a gold electrode. Colloids and Surfaces B: Biointerfaces, 2008, 64, 16-21.	2.5	23
32	An effective method for a separation of smoking area by using novel photocatalysis-plasma synergistic air-cleaner. Chemical Engineering Journal, 2012, 209, 313-317.	6.6	23
33	Application of solar light for photocatalytic degradation of Congo red by a floating salicylic acid-modified TiO2/palm trunk photocatalyst. Comptes Rendus Chimie, 2017, 20, 181-189.	0.2	23
34	Boron-doped diamond powder (BDDP)-based polymer composites for dental treatment using flexible pinpoint electrolysis unit. Electrochemistry Communications, 2016, 68, 49-53.	2.3	18
35	Fabrication of CdS/Î²-SiC/TiO2 tri-composites that exploit hole- and electron-transfer processes for photocatalytic hydrogen production under visible light. International Journal of Hydrogen Energy, 2018, 43, 2207-2211.	3.8	18
36	Electrochemical and Photocatalytic Decomposition of Perfluorooctanoic Acid with a Hybrid Reactor Using a Boron-doped Diamond Electrode and TiO2 Photocatalyst. Chemistry Letters, 2011, 40, 682-683.	0.7	17

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37	Recent Aspects of Photocatalytic Technologies for Solar Fuels, Self-Cleaning, and Environmental Cleanup. Electrochemical Society Interface, 2013, 22, 51-56.	0.3	17
38	Visible Light Responsive Electrospun TiO2 Fibers Embedded with WO3 Nanoparticles. Chemistry Letters, 2011, 40, 1161-1162.	0.7	16
39	Molecular Assembly of Zinc Chlorophyll Derivatives by Using Recombinant Light-Harvesting Polypeptides with His-tag and Immobilization on a Gold Electrode. Langmuir, 2013, 29, 5104-5109.	1.6	16
40	Synergistic Water-Treatment Reactors Using a TiO2-Modified Ti-Mesh Filter. Water (Switzerland), 2013, 5, 1101-1115.	1.2	16
41	Rapid erasing of wettability patterns based on TiO2-PDMS composite films. Materials Chemistry and Physics, 2011, 126, 484-487.	2.0	15
42	Antibacterial, Hydrophilic Effect and Mechanical Properties of Orthodontic Resin Coated with UV-Responsive Photocatalyst. Materials, 2018, 11, 889.	1.3	15
43	Electrospinning Preparation and Photocatalytic Activity of Porous TiO₂Nanofibers. Journal of Nanomaterials, 2012, 2012, 1-5.	1.5	14
44	TiO2-Impregnated Porous Silica Tube and Its Application for Compact Air- and Water-Purification Units. Catalysts, 2015, 5, 1498-1506.	1.6	14
45	Effective Photocatalytic Hydrogen Evolution by Cascadal Carrier Transfer in the Reverse Direction. ACS Omega, 2018, 3, 12770-12777.	1.6	14
46	Electrospun fibers composed of Al2O3-TiO2 nanocrystals. Journal of the Ceramic Society of Japan, 2009, 117, 1203-1207.	0.5	13
47	Flexible Boron-Doped Diamond (BDD) Electrodes for Plant Monitoring. Sensors, 2017, 17, 1638.	2.1	13
48	Electrochemical Reduction of Ozone Dissolved in Perchloric Acid Solutions at Boron-doped Diamond Electrodes. Chemistry Letters, 2006, 35, 1018-1019.	0.7	12
49	Fabrication of micro-patterned TiO2 thin films incorporating Ag nanoparticles. Materials Letters, 2009, 63, 1628-1630.	1.3	12
50	Immobilization of Porphyrin Derivatives with a Defined Distance and Orientation onto a Gold Electrode Using Synthetic Light-Harvesting Î±-Helix Hydrophobic Polypeptides. Langmuir, 2010, 26, 14419-14422.	1.6	12
51	Bending motion of a polyacrylamide/graphite fiber driven by a wide range of light from UV to NIR. Materials Letters, 2012, 74, 68-70.	1.3	12
52	Application of Boronâ€Doped Diamond Microelectrodes for Dental Treatment with Pinpoint Ozoneâ€Water Production. ChemPhysChem, 2013, 14, 2094-2096.	1.0	12
53	Compact and effective photocatalytic air-purification unit by using of mercury-free excimer lamps with TiO2 coated titanium mesh filter. Catalysis Science and Technology, 2011, 1, 1328.	2.1	11
54	Elucidation of the electron energy structure of TiO₂(B) and anatase photocatalysts through analysis of electron trap density. RSC Advances, 2020, 10, 18496-18501.	1.7	11

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55	Anodizing Effects of Titanium-Mesh Surface for Fabrication of Photocatalytic Air Purification Filter. Nanoscience and Nanotechnology Letters, 2012, 4, 544-547.	0.4	11
56	Polyelectrolyte-assisted soft reduced process for Pt-Cu nanoclusters with enhanced electrocatalytic activity for the methanol oxidation reaction. Journal of Physics and Chemistry of Solids, 2019, 124, 361-366.	1.9	10
57	Field Performance Test of an Air-Cleaner with Photocatalysis-Plasma Synergistic Reactors for Practical and Long-Term Use. Molecules, 2014, 19, 17424-17434.	1.7	9
58	Highly Sensitive Measurement of Bio-Electric Potentials by Boron-Doped Diamond (BDD) Electrodes for Plant Monitoring. Sensors, 2015, 15, 26921-26928.	2.1	8
59	Influence of Dissolved Ions on the Water Purification Performance of TiO2-Impregnated Porous Silica Tubes. Catalysts, 2017, 7, 158.	1.6	8
60	Anisotropic Photomechanical Motion of Semicircular-shaped Microfibers That Contain Dyes. Chemistry Letters, 2011, 40, 1229-1230.	0.7	7
61	CdS/ZnS Heterostructured Porous Composite with Enhanced Visible Light Photocatalysis. Journal of Nanoscience and Nanotechnology, 2018, 18, 6913-6918.	0.9	7
62	Analysis of Adsorption and Decomposition of Odour and Tar Components in Tobacco Smoke on Non-Woven Fabric-Supported Photocatalysts. Catalysts, 2020, 10, 304.	1.6	7
63	Molecular assembly of Zn porphyrin complexes using synthetic light-harvesting model polypeptides. Photosynthesis Research, 2008, 95, 353-361.	1.6	6
64	Eco-Friendly Cotton/Linen Fabric Treatment Using Aqueous Ozone and Ultraviolet Photolysis. Catalysts, 2020, 10, 1265.	1.6	6
65	Comparison of Photocatalytic Activities of Cu/TiO₂ and Ag/TiO₂ in Gaseous- and Liquid-Phases Degradation of H₂S. Nanoscience and Nanotechnology Letters, 2017, 9, 1696-1699.	0.4	6
66	Molecular assembly of Zn porphyrin complexes onto a gold electrode using synthetic light-harvesting model polypeptides. Tetrahedron Letters, 2007, 48, 8468-8471.	0.7	5
67	Fabrication and characterization of self-organized porous TiO2 particle layers. Materials Letters, 2012, 70, 160-162.	1.3	5
68	Environmental and Medical Applications of TiO2 Photocatalysts and Boron-doped Diamond Electrodes. Electrochemistry, 2014, 82, 720-725.	0.6	5
69	Immobilization of Rhodamine B Isothiocyanate on TiO₂ for Light Harvesting in Zinc Phthalocyanine Dye-sensitized Solar Cells. Chemistry Letters, 2018, 47, 225-227.	0.7	5
70	Photocatalytic Oxidation of Aqueous Ammonia to Nitrite and Nitrate Ions on Zeoliteâ€“TiO₂. Chemistry Letters, 2018, 47, 1542-1544.	0.7	4
71	Fabrication of a Fluorophore-Doped Cylindrical Waveguide Structure Using Elastomers for Visual Detection of Stress. Fibers, 2019, 7, 37.	1.8	4
72	Photothermal Catalysis: Enhanced Solar Photothermal Catalysis over Solution Plasma Activated TiO₂ (Adv. Sci. 16/2020). Advanced Science, 2020, 7, 2070092.	5.6	4

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73	Fabrication of a Porous TiO₂-Coated Silica Glass Tube and Its Application for a Handy Water Purification Unit. International Journal of Photoenergy, 2014, 2014, 1-6.	1.4	3
74	Improving Interfacial Charge-Transfer Transitions in Nb-Doped TiO2 Electrodes with 7,7,8,8-Tetracyanoquinodimethane. Catalysts, 2018, 8, 367.	1.6	3
75	Electrolytic Ozone Generation at Pt/Ti Electrode Prepared by Multiple Electrostrike Method. Chemistry Letters, 2019, 48, 574-577.	0.7	3
76	Development of a Coil-Shape Photocatalysis-Plasma Synergistic Reactor for a Practical and Long-Term Usable Air-Cleaner. American Journal of Analytical Chemistry, 2014, 05, 467-472.	0.3	3
77	Molecular Assembly of BChl a Complexes onto ITO Electrode Using Synthetic Light-harvesting Model Polypeptides Bearing Spermine Derivative. Chemistry Letters, 2008, 37, 98-99.	0.7	2
78	Color-changeable gold luster film based on polyaniline and poly(3,4-ethylenedioxythiophene). Thin Solid Films, 2019, 677, 33-38.	0.8	2
79	Decomposition of Gaseous Styrene Using Photocatalyst and Ozone Treatment. Catalysts, 2022, 12, 316.	1.6	2
80	Photomechanical Energy Conversion of Photoresponsive Fibers Exhibiting Bending Behavior. International Journal of Photoenergy, 2012, 2012, 1-6.	1.4	1
81	Repeatable Wettability Conversion between Hydrophobic and Superhydrophilic States on Nonwoven Fabrics Based on Electrospun TiO2â€“Poly(dimethylsiloxane) Fibers. Chemistry Letters, 2012, 41, 735-737.	0.7	1
82	Fabrication of TiO₂-coated Porous Silica Glass Tube and Evaluation as Environmental Purification Unit. Electrochemistry, 2019, 87, 1-7.	0.6	1
83	Water Purification in Dark Conditions Using Photocatalytic Light-leakage Type Plastic Optical Fiber. Chemistry Letters, 2020, 49, 199-202.	0.7	1
84	"FACILE FUNCTIONALIZATION OF COTTON FABRICS WITHHIERARCHICAL FLOWER-LIKE Ag2Ti3O7 LAYER FOR ENHANCED PHOTOCATALYTIC ACTIVITIES UNDER VISIBLE LIGHT IRRADIATION AGRO-FORESTRY RESIDUES". Cellulose Chemistry and Technology, 2020, 54, 395-403.	0.5	1
85	Two-Dimensional Molecular Assembly of Bacteriochlorophyll a Derivatives Using Synthetic Poly(ethylene glycol)-Linked Light-Harvesting Model Polypeptides on a Gold Electrode Modified with Supported Lipid Bilayers. ACS Macro Letters, 2012, 1, 28-32.	2.3	0
86	2ï¼Žå°Žé›»æ€§ãƒ€ã‚ãƒãƒ¢ãƒ³ãƒ‰é›»æ¥µã•å…‰è§¦åª’ã‚'ç”¨ã„ãŸæœ‰æ©Ÿãƒ•ãƒƒç´ŒåŒ–å•ç‰©ã®åˆ†è§£. Electrochemistry, 2013,	0.6	0
87	Possibility of the DDS material and medical device application using photocatalyst. Drug Delivery System, 2021, 36, 10-17.	0.0	0
88	Photoelectrochemical Disinfection of Air (TiO2). , 2014, , 1542-1547.		0
89	Photoreduction of Carbon Dioxide By the Zinc Phthalocyanine Immobilized Titanium Dioxide. ECS Meeting Abstracts, 2016, , .	0.0	0
90	Applications of TiO₂ Photocatalyst: Recent Trends and Future Prospects. Journal of the Japan Society of Colour Material, 2016, 89, 6-10.	0.0	0

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91	Highly Sensitive Measurement of Bioelectric Potentials by Boron-Doped Diamond Electrodes for Plant Monitoring. ECS Meeting Abstracts, 2016, , .	0.0	0
92	Increased Light Absorption in Dye-Sensitized Solar Cells with Light Harvesting Dye. ECS Meeting Abstracts, 2016, , .	0.0	0
93	Flexible Boron-Doped Diamond Films for Bio-Potential Sensing in Plants. ECS Meeting Abstracts, 2018, , .	0.0	0
94	Environmentally Friendly Treatment of Textiles Using Electrochemically Generated O₃-Water with UV Irradiation. ECS Meeting Abstracts, 2020, MA2020-02, 1543-1543.	0.0	0