

# Toshiya Watanabe

## List of Publications by Citations

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69  
papers

15,462  
citations

34  
h-index

71  
g-index

71  
ext. papers

16,194  
ext. citations

4.9  
avg, IF

6.03  
L-index

#	Paper	IF	Citations
69	Light-induced amphiphilic surfaces. <i>Nature</i> , <b>1997</b> , 388, 431-432	50.4	2832
68	A plasmonic photocatalyst consisting of silver nanoparticles embedded in titanium dioxide. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 1676-80	16.4	1301
67	Effects of the Surface Roughness on Sliding Angles of Water Droplets on Superhydrophobic Surfaces. <i>Langmuir</i> , <b>2000</b> , 16, 5754-5760	4	1039
66	Detection of active oxidative species in TiO <sub>2</sub> photocatalysis using the fluorescence technique. <i>Electrochemistry Communications</i> , <b>2000</b> , 2, 207-210	5.1	941
65	Effects of Surface Structure on the Hydrophobicity and Sliding Behavior of Water Droplets. <i>Langmuir</i> , <b>2002</b> , 18, 5818-5822	4	937
64	Photogeneration of Highly Amphiphilic TiO <sub>2</sub> Surfaces. <i>Advanced Materials</i> , <b>1998</b> , 10, 135-138	24	713
63	Photoinduced Surface Wettability Conversion of ZnO and TiO <sub>2</sub> Thin Films. <i>Journal of Physical Chemistry B</i> , <b>2001</b> , 105, 1984-1990	3.4	660
62	Recent Studies on Super-Hydrophobic Films. <i>Monatshefte für Chemie</i> , <b>2001</b> , 132, 31-41	1.4	643
61	Quantum yields of active oxidative species formed on TiO <sub>2</sub> photocatalyst. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2000</b> , 134, 139-142	4.7	631
60	Transparent Superhydrophobic Thin Films with Self-Cleaning Properties. <i>Langmuir</i> , <b>2000</b> , 16, 7044-7047	4	625
59	Studies of Surface Wettability Conversion on TiO <sub>2</sub> Single-Crystal Surfaces. <i>Journal of Physical Chemistry B</i> , <b>1999</b> , 103, 2188-2194	3.4	586
58	Studies on photokilling of bacteria on TiO <sub>2</sub> thin film. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2003</b> , 156, 227-233	4.7	565
57	Photocatalysis and Photoinduced Hydrophilicity of Various Metal Oxide Thin Films. <i>Chemistry of Materials</i> , <b>2002</b> , 14, 2812-2816	9.6	541
56	Quantitative Evaluation of the Photoinduced Hydrophilic Conversion Properties of TiO <sub>2</sub> Thin Film Surfaces by the Reciprocal of Contact Angle. <i>Journal of Physical Chemistry B</i> , <b>2003</b> , 107, 1028-1035	3.4	421
55	Enhancement of the Photoinduced Hydrophilic Conversion Rate of TiO <sub>2</sub> Film Electrode Surfaces by Anodic Polarization. <i>Journal of Physical Chemistry B</i> , <b>2001</b> , 105, 3023-3026	3.4	294
54	Preparation of hard super-hydrophobic films with visible light transmission. <i>Thin Solid Films</i> , <b>2000</b> , 376, 140-143	2.2	276
53	Bactericidal activity of copper-deposited TiO <sub>2</sub> thin film under weak UV light illumination. <i>Environmental Science &amp; Technology</i> , <b>2003</b> , 37, 4785-9	10.3	272

52	Effect of Ultrasonic Treatment on Highly Hydrophilic TiO <sub>2</sub> Surfaces. <i>Langmuir</i> , <b>1998</b> , 14, 5918-5920	4	264
51	Photoinduced Surface Reactions on TiO <sub>2</sub> and SrTiO <sub>3</sub> Films: Photocatalytic Oxidation and Photoinduced Hydrophilicity. <i>Chemistry of Materials</i> , <b>2000</b> , 12, 3-5	9.6	237
50	Reversible wettability control of TiO <sub>2</sub> surface by light irradiation. <i>Surface Science</i> , <b>2002</b> , 511, 401-407	1.8	171
49	Generation and Deactivation Processes of Superoxide Formed on TiO <sub>2</sub> Film Illuminated by Very Weak UV Light in Air or Water. <i>Journal of Physical Chemistry B</i> , <b>2000</b> , 104, 4934-4938	3.4	152
48	Photoinduced Hydrophilic Conversion of TiO <sub>2</sub> /WO <sub>3</sub> Layered Thin Films. <i>Chemistry of Materials</i> , <b>2002</b> , 14, 4714-4720	9.6	141
47	Photocatalysis by Calcium Hydroxyapatite Modified with Ti(IV): Albumin Decomposition and Bactericidal Effect. <i>Langmuir</i> , <b>2003</b> , 19, 3428-3431	4	125
46	Photocatalytic Activity and Photo-Induced Wettability Conversion of TiO <sub>2</sub> Thin Film Prepared by Sol-Gel Process on a Soda-Lime Glass. <i>Journal of Sol-Gel Science and Technology</i> , <b>2000</b> , 19, 71-76	2.3	121
45	Photoinduced Amphiphilic Surface on Polycrystalline Anatase TiO <sub>2</sub> Thin Films. <i>Langmuir</i> , <b>2000</b> , 16, 7048-7050	4.0	108
44	Effect of repeated photo-illumination on the wettability conversion of titanium dioxide. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2001</b> , 146, 129-132	4.7	89
43	Comparison of photochemical properties of brookite and anatase TiO <sub>2</sub> films. <i>Physical Chemistry Chemical Physics</i> , <b>2004</b> , 6, 1359	3.6	83
42	Sliding behavior of water droplets on flat polymer surface. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 743-7	16.4	56
41	Palladium-catalyzed allylation of imines with allyl alcohols. <i>Organic Letters</i> , <b>2005</b> , 7, 637-40	6.2	52
40	Super-hydrophobic photocatalytic coatings utilizing apatite-based photocatalyst. <i>Thin Solid Films</i> , <b>2006</b> , 502, 108-111	2.2	52
39	Highly Hydrophilic Surfaces of Cathodically Polarized Amorphous TiO <sub>2</sub> Electrodes. <i>Journal of the Electrochemical Society</i> , <b>2001</b> , 148, E395	3.9	37
38	Preparation of a crack-free rough titania coating on stainless steel mesh by electrophoretic deposition. <i>Materials Research Bulletin</i> , <b>2005</b> , 40, 1335-1344	5.1	36
37	Preparation and properties of titania-apatite hybrid films. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2006</b> , 177, 94-99	4.7	34
36	Jump of water droplet from a super-hydrophobic film by vertical electric field. <i>Surface Science</i> , <b>2002</b> , 519, L589-L592	1.8	34
35	Photoinduced surface roughness variation in polycrystalline TiO <sub>2</sub> thin films. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2006</b> , 180, 75-79	4.7	29

34	Wettability of ceramic surfaces -A wide range control of surface wettability from super hydrophilicity to super hydrophobicity, from static wettability to dynamic wettability. <i>Journal of the Ceramic Society of Japan</i> , <b>2009</b> , 117, 1285-1292	1	27
33	The sp <sup>3</sup> bond fraction in carbon films prepared by mass-separated ion beam deposition. <i>Diamond and Related Materials</i> , <b>2001</b> , 10, 895-899	3.5	27
32	Effect of microstructure on photoinduced hydrophilicity of transparent anatase thin films. <i>Surface Science</i> , <b>2005</b> , 579, 123-130	1.8	26
31	Control of Water Droplets on Super-Hydrophobic Surfaces by Static Electric Field. <i>Japanese Journal of Applied Physics</i> , <b>2002</b> , 41, 287-291	1.4	26
30	Sliding Mode Transition of Water Droplet on the Silicon Surface Coated with Octadecyltrichlorosilane. <i>Chemistry Letters</i> , <b>2003</b> , 32, 1148-1149	1.7	23
29	Preparation and Water Droplet Sliding Properties of Transparent Hydrophobic Polymer Coating by Molecular Design for Self-Organization. <i>Journal of Sol-Gel Science and Technology</i> , <b>2004</b> , 31, 195-199	2.3	19
28	Tribological properties of diamond-like carbon films prepared by mass-separated ion beam deposition. <i>Diamond and Related Materials</i> , <b>2002</b> , 11, 1130-1134	3.5	19
27	Band gap and photocatalytic properties of Ti-substituted hydroxyapatite: Comparison with anatase-TiO <sub>2</sub> . <i>Journal of Molecular Catalysis A</i> , <b>2011</b> , 338, 18-18		17
26	Wettability control of a solid surface by utilizing photocatalysis. <i>Chemical Record</i> , <b>2008</b> , 8, 279-90	6.6	16
25	Development of Plasma Based Ion Implantation System using an Electron Cyclotron Resonance Plasma Source with a Mirror Field and Synthesis of Carbon Thin Films. <i>Japanese Journal of Applied Physics</i> , <b>2001</b> , 40, 4684-4690	1.4	15
24	Surface structure and visible light photocatalytic activity of titanium/calcium hydroxyapatite modified with Cr(III). <i>Advanced Powder Technology</i> , <b>2011</b> , 22, 498-503	4.6	14
23	Recent Studies on Super-Hydrophobic Films <b>2001</b> , 31-41		14
22	Synthesis of amorphous carbon films by plasma-based ion implantation using ECR plasma with a mirror field. <i>Surface and Coatings Technology</i> , <b>2002</b> , 156, 317-321	4.4	13
21	Photoinduced surface roughness variation in polycrystalline TiO <sub>2</sub> thin films under different atmospheres. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2007</b> , 190, 53-57	4.7	12
20	Formation of a-C thin films by plasma-based ion implantation. <i>Science and Technology of Advanced Materials</i> , <b>2001</b> , 2, 539-545	7.1	12
19	Light Intensity Dependent Behavior of Active Oxygen Species Formed at TiO <sub>2</sub> Film and Water Interface. <i>Electrochemistry</i> , <b>2001</b> , 69, 160-164	1.2	12
18	Structure of carbon nitride films prepared by mass-separated low-energy ion beam deposition. <i>Diamond and Related Materials</i> , <b>2003</b> , 12, 1061-1065	3.5	11
17	Preparation of Transparent Thin Film of Novel Apatite-based Photocatalyst. <i>Chemistry Letters</i> , <b>2005</b> , 34, 1666-1667	1.7	9

16	Dependence of photoinduced surface friction force variation on UV intensity and atmosphere in polycrystalline TiO <sub>2</sub> thin films. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2009</b> , 203, 155-160	4.7	7
15	Synthesis of amorphous carbon films by plasma-based ion implantation with simultaneous application of DC and pulse bias. <i>Diamond and Related Materials</i> , <b>2003</b> , 12, 2083-2087	3.5	6
14	Tribological properties of a-C:H films coated by the PBII method. <i>Diamond and Related Materials</i> , <b>2003</b> , 12, 105-109	3.5	6
13	Preparation and characterization of TiO <sub>2</sub> thin films using vacuum ultraviolet light in a sol-gel process. <i>Surface Science</i> , <b>2005</b> , 596, 197-205	1.8	6
12	Influence of DC Biasing on the Formation of Hydrogenated Amorphous Carbon Films Using a Plasma-Based Ion Implantation Technique. <i>Japanese Journal of Applied Physics</i> , <b>2002</b> , 41, 6165-6168	1.4	6
11	Effects of Thermal and Evacuating Treatments on Photo-induced Hydrophilic Conversion at TiO <sub>2</sub> Surfaces. <i>Electrochemistry</i> , <b>2000</b> , 68, 779-782	1.2	6
10	Carbon films deposited with mass-selected carbon ion beams under substrate heating. <i>Surface and Coatings Technology</i> , <b>2003</b> , 169-170, 328-331	4.4	4
9	The influence of DC biasing on the uniformity of a-C:H films for three-dimensional substrates by using a plasma-based ion implantation technique. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2003</b> , 206, 726-730	1.2	3
8	Effect of substrate temperature on the structure and chemical bonds of carbon films deposited with a mass-separated carbon ion beam. <i>Diamond and Related Materials</i> , <b>2003</b> , 12, 2088-2092	3.5	3
7	KNOWLEDGE MANAGEMENT USING EXTERNAL KNOWLEDGE. <i>International Journal of Innovation Management</i> , <b>2017</b> , 21, 1750031	1.5	2
6	Sol-Gel-Processed Photocatalytic Titania Films <b>2018</b> , 2695-2728		1
5	Effect of Functional Coatings on Topographical Properties of Glass. <i>Ceramic Transactions</i> , 129-139	0.1	1
4	Characterization of Crystallized TiO <sub>2</sub> Film by Post Plasma Treatment. <i>Ceramic Transactions</i> , 149-160	0.1	1
3	????DLC?????????????. <i>Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan</i> , <b>2007</b> , 58, 13-17	0.1	
2	Synthesis of a-C thin films by plasma-based ion implantation using an electron cyclotron resonance plasma source with a mirror field. <i>Surface and Coatings Technology</i> , <b>2003</b> , 169-170, 266-269	4.4	
1	Sol-Gel Processed Photocatalytic Titania Films <b>2016</b> , 1-35		