Hiroaki Tsuchiya

List of Publications by Year
in descending order

101	8,285	76294 40	48277 88
papers	citations	h-index	g-index

104	104	104	5852
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-Aspect-Ratio TiO2Nanotubes by Anodization of Titanium. Angewandte Chemie - International Edition, 2005, 44, 2100-2102.	7.2	1,111
2	Smooth Anodic TiO2 Nanotubes. Angewandte Chemie - International Edition, 2005, 44, 7463-7465.	7.2	832
3	Ion Implantation and Annealing for an Efficient N-Doping of TiO2 Nanotubes. Nano Letters, 2006, 6, 1080-1082.	4.5	546
4	Titanium oxide nanotubes prepared in phosphate electrolytes. Electrochemistry Communications, 2005, 7, 505-509.	2.3	381
5	Dye-sensitized anodic TiO2 nanotubes. Electrochemistry Communications, 2005, 7, 1133-1137.	2.3	369
6	Hydroxyapatite growth on anodic TiO2 nanotubes. Journal of Biomedical Materials Research - Part A, 2006, 77A, 534-541.	2.1	268
7	Self-organized nanotubular oxide layers on Ti-6Al-7Nb and Ti-6Al-4V formed by anodization in NH4F solutions. Journal of Biomedical Materials Research - Part A, 2005, 75A, 928-933.	2.1	246
8	Self-organized porous WO3 formed in NaF electrolytes. Electrochemistry Communications, 2005, 7, 295-298.	2.3	242
9	Self-organized high aspect ratio porous hafnium oxide prepared by electrochemical anodization. Electrochemistry Communications, 2005, 7, 49-52.	2.3	233
10	Self-organized TiO2 nanotubes prepared in ammonium fluoride containing acetic acid electrolytes. Electrochemistry Communications, 2005, 7, 576-580.	2.3	223
11	TiO2 nanotubes: H+insertion and strong electrochromic effects. Electrochemistry Communications, 2006, 8, 528-532.	2.3	210
12	Wetting behaviour of layers of TiO2 nanotubes with different diameters. Journal of Materials Chemistry, 2005, 15, 4488.	6.7	208
13	Thick self-organized porous zirconium oxide formed in H2SO4/NH4F electrolytes. Electrochemistry Communications, 2004, 6, 1131-1134.	2.3	190
14	Annealing effects on the photoresponse of TiO2nanotubes. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, R28-R30.	0.8	164
15	XPS characterization of passive films formed on Type 304 stainless steel in humid atmosphere. Corrosion Science, 2012, 58, 62-68.	3.0	162
16	Self-organized porous TiO2 and ZrO2 produced by anodization. Corrosion Science, 2005, 47, 3324-3335.	3.0	161
17	Fabrication and characterization of smooth high aspect ratio zirconia nanotubes. Chemical Physics Letters, 2005, 410, 188-191.	1.2	158
18	Semiconductive behavior of passive films formed on pure Cr and Feâ€“Cr alloys in sulfuric acid solution. Electrochimica Acta, 2002, 47, 4357-4366.	2.6	156

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19	Characterization of electronic properties of TiO2 nanotube films. Corrosion Science, 2007, 49, 203-210.	3.0	148
20	Self-Organized High-Aspect-Ratio Nanoporous Zirconium Oxides Prepared by Electrochemical Anodization. Small, 2005, 1, 722-725.	5.2	138
21	TiO₂ Nanotubes â€“ Annealing Effects on Detailed Morphology and Structure. European Journal of Inorganic Chemistry, 2010, 2010, 4351-4356.	1.0	129
22	TiO₂ Nanotubes: Nitrogenâ€Ion Implantation at Low Dose Provides Nobleâ€Metalâ€Free Photocatalytic H₂â€Evolution Activity. Angewandte Chemie - International Edition, 2016, 55, 3763-3767.	7.2	119
23	Size-effects in TiO2 nanotubes: Diameter dependent anatase/rutile stabilization. Electrochemistry Communications, 2011, 13, 538-541.	2.3	117
24	TiO2 nanotube layers: Dose effects during nitrogen doping by ion implantation. Chemical Physics Letters, 2006, 419, 426-429.	1.2	112
25	Semiconductor properties and protective role of passive films of iron base alloys. Corrosion Science, 2007, 49, 195-202.	3.0	112
26	Transition from Nanopores to Nanotubes: Self-Ordered Anodic Oxide Structures on Titaniumâ˜Aluminides. Chemistry of Materials, 2008, 20, 3245-3247.	3.2	104
27	Nanotube oxide coating on Tiâ€“29Nbâ€“13Taâ€“4.6Zr alloy prepared by self-organizing anodization. Electrochimica Acta, 2006, 52, 94-101.	2.6	98
28	Self-Organization of Anodic Nanotubes on Two Size Scales. Small, 2006, 2, 888-891.	5.2	95
29	Nitrogen doped anodic TiO2 nanotubes grown from nitrogen-containing Ti alloys. Electrochemistry Communications, 2008, 10, 910-913.	2.3	73
30	Self-organized nano-tubes of TiO2â€“MoO3 with enhanced electrochromic properties. Chemical Communications, 2009, , 2008.	2.2	72
31	Self-organized porous and tubular oxide layers on TiAl alloys. Electrochemistry Communications, 2007, 9, 2397-2402.	2.3	70
32	Lithium-ion insertion in anodic TiO2nanotubes resulting in high electrochromic contrast. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 1281-1285.	0.8	69
33	Ordered Ferroelectric Lead Titanate Nanocellular Structure by Conversion of Anodic TiO₂ Nanotubes. Advanced Materials, 2009, 21, 3121-3125.	11.1	69
34	Anodic oxide nanotube layers on Tiâ€“Ta alloys: Substrate composition, microstructure and self-organization on two-size scales. Corrosion Science, 2009, 51, 1528-1533.	3.0	61
35	Enhancement of the Electrocatalytic Oxidation of Methanol at Ptâ•Ru Nanoparticles Immobilized in Different WO[sub 3] Matrices. Electrochemical and Solid-State Letters, 2006, 9, E13.	2.2	51
36	Less known facts and findings about TiO₂nanotubes. Nanoscale, 2020, 12, 8119-8132.	2.8	47

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37	Semiconductive Properties of Passive Films Formed on Fe-18Cr in Borate Buffer Solution. Journal of the Electrochemical Society, 2004, 151, B39.	1.3	43
38	A new route for the formation of self-organized anodic porous alumina in neutral electrolytes. Electrochemistry Communications, 2007, 9, 545-550.	2.3	42
39	Corrosion behaviour of Lotus-type porous high nitrogen nickel-free stainless steels. Corrosion Science, 2008, 50, 183-193.	3.0	37
40	Metallurgical aspects on the formation of self-organized anodic oxide nanotube layers. Electrochimica Acta, 2009, 54, 5155-5162.	2.6	37
41	Forming a Highly Active, Homogeneously Alloyed AuPt Co-catalyst Decoration on TiO₂ Nanotubes Directly During Anodic Growth. ACS Applied Materials & Interfaces, 2018, 10, 18220-18226.	4.0	37
42	Formation of self-organized pores on type 316 stainless steel in organic solvents. Electrochimica Acta, 2012, 82, 333-338.	2.6	36
43	Transition in the nanoporous structure of iron oxides during the oxidation of iron nanoparticles and nanowires. Acta Materialia, 2009, 57, 4261-4266.	3.8	35
44	Strength of self-organized TiO2 nanotube arrays. Acta Materialia, 2010, 58, 4956-4967.	3.8	33
45	Electrochemical formation of porous superlattices on n-type (1 0 0) InP. Surface Science, 2003, 547, 268-274.	0.8	30
46	TiO₂ Nanotubes: Nitrogenâ€Ion Implantation at Low Dose Provides Nobleâ€Metalâ€Free Photocatalytic H₂â€Evolution Activity. Angewandte Chemie, 2016, 128, 3827-3831.	1.6	26
47	Selective dissolution of nanolamellar Tiâ€“41 at.% Al alloy single crystals. Acta Materialia, 2010, 58, 2876-2886.	3.8	25
48	Semiconductor properties of passive films formed on sputter-deposited Feâ€“18Cr alloy thin films with various additive elements. Science and Technology of Advanced Materials, 2004, 5, 195-200.	2.8	23
49	Self-organized cobalt fluoride nanochannel layers used as a pseudocapacitor material. Chemical Communications, 2014, 50, 7067-7070.	2.2	21
50	Characterization of oxide films formed on Alloy 600 and Alloy 690 in simulated PWR primary water by using hard X-ray photoelectron spectroscopy. Journal of Solid State Electrochemistry, 2015, 19, 3521-3531.	1.2	19
51	Morphological characterization of porous InP superlattices. Science and Technology of Advanced Materials, 2004, 5, 119-123.	2.8	17
52	Nitrogen-doped TiO2 mesosponge layers formed by anodization of nitrogen-containing Ti alloys. Journal of Solid State Electrochemistry, 2012, 16, 89-92.	1.2	17
53	Semiconductive behavior of passive films formed on Fe-Cr alloy. Journal of Electroceramics, 2006, 16, 49-54.	0.8	15
54	Degradation of Tiâ€“6Alâ€“4V alloy under cyclic loading in a simulated body environment with cell culturing. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 56, 6-13.	1.5	13

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55	Effect of Cations on Protective Properties of Rust Layer Formed on Carbon Steel during Wet/Dry Cyclic Corrosion. Materials Transactions, 2020, 61, 506-514.	0.4	11
56	Growth Process of Passive Films on Austenitic Stainless Steels under Wet-dry Cyclic Condition. ISIJ International, 2012, 52, 1356-1361.	0.6	10
57	Selective pore growth on lamellar Tiâ€“41at.%Al alloy. Electrochemistry Communications, 2013, 26, 117-120.	2.3	10
58	TiO₂nanotube layers with metallic nanoparticles. Journal of Physics: Conference Series, 2009, 165, 012037.	0.3	9
59	Growth of nanotubular oxide layer on Ti-Ni alloys with different Ni contents. Applied Surface Science, 2016, 369, 430-435.	3.1	9
60	Anodic Porous and Tubular Oxide Layers on Ti Alloys. ECS Transactions, 2009, 16, 359-367.	0.3	7
61	Anodic Porous Zirconium Oxide Prepared in Sulfuric Acid Electrolytes. Materials Science Forum, 2006, 512, 205-210.	0.3	6
62	Crystallographic characterization of stress corrosion cracking initiation on type316L stainless steel in high temperature and high pressure water. Journal of Physics: Conference Series, 2009, 165, 012009.	0.3	6
63	Formation of Self-Organized Zirconia Nanostructure. ECS Transactions, 2006, 1, 351-357.	0.3	5
64	Modification of Rust Layer on Carbon Steel with Reactive Actions of Metallic Cations for Improved Corrosion Protectiveness. Corrosion, 2020, 76, 335-343.	0.5	5
65	Corrosion behavior of carbon steel coated with a zincâ€rich paint containing metallic compounds under wet and dry cyclic conditions. Materials and Corrosion - Werkstoffe Und Korrosion, 2021, 72, 1787-1795.	0.8	5
66	Electrochemical Characterization of Passive Films on Ni-Based Alloys in Acidic and Neutral Solutions. Materials Transactions, 2015, 56, 593-599.	0.4	4
67	Band structures of passive films on titanium in simulated bioliquids determined by photoelectrochemical response: principle governing the biocompatibility. Science and Technology of Advanced Materials, 2022, 23, 322-331.	2.8	4
68	Growth and Properties of Self-Organized TiO2 Nanotube Layers. ECS Transactions, 2006, 1, 335-341.	0.3	3
69	Anodic Oxide Nanotubes on Ti Alloys. ECS Transactions, 2006, 3, 365-374.	0.3	3
70	Surface modification of Î²-Type titanium alloy by electrochemical potential pulse polarization. Journal of Physics: Conference Series, 2009, 165, 012007.	0.3	3
71	Formation of Self-Organized Pore Arrays on Metallic Substrates by Anodization and their Applications. Materials Science Forum, 0, 783-786, 2034-2039.	0.3	3
72	Formation of Nano-Structured Oxide Layers Formed on Ti-Fe Alloys by Anodization. Materials Transactions, 2016, 57, 519-524.	0.4	3

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73	Electrochemical Behavior of Type 304 Stainless Steel in Ionic Liquid Containing Small Amount of Water. Journal of the Electrochemical Society, 2016, 163, C506-C513.	1.3	3
74	Fabrication of Titania Nanotube Arrays by Anodization and Their Functionalization. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2016, 67, 520-526.	0.1	3
75	Stress corrosion cracking of copper in swollen bentonite simulating nuclear waste disposal environment. Materials and Corrosion - Werkstoffe Und Korrosion, 2021, 72, 333-338.	0.8	3
76	Self-Organized Nanoporous Valve Metal Oxide Layers. , 2006, , 187-192.		2
77	Dye-Sensitized TiO2 Nanotubes with Ag Nanoparticles. ECS Transactions, 2009, 16, 261-266.	0.3	2
78	Cell Activity on Type 316L Stainless Steel with Self-Organized Nanopores Formed by Anodic Polarization. Materials Transactions, 2016, 57, 2065-2071.	0.4	2
79	Structure of Corrosion Product Formed on Carbon Steel Covered with NiSO₄-Added Resin Coating under Sulfuric Acid Mist Environment Containing Chloride. Materials Transactions, 2021, 62, 781-787.	0.4	2
80	Semiconductor Property of Passive Films and Corrosion Behavior of Fe-Cr Alloys. , 2006, , 33-49.		2
81	Corrosion Behavior of Rusted Carbon Steel Coated with a Paint Containing Metallic Salt under Wet and Dry Cyclic Condition. Zairyo/Journal of the Society of Materials Science, Japan, 2020, 69, 797-803.	0.1	2
82	Structure of Corrosion Product Formed on Carbon Steel Covered with NiSO₄-added Resin Coating under Sulfuric Acid Mist Environment Containing Chloride. Zairyo To Kankyo/ Corrosion Engineering, 2020, 69, 148-153.	0.0	2
83	Mechano-Chemical Polishing of Alloy 600 for Accelerated Crack Initiation in Simulated PWR Primary Water Environment and Three-Dimensional Crystallographic Characterization. Materials Transactions, 2020, 61, 1339-1345.	0.4	2
84	Effect of Deposits on Corrosion of Copper Tubes in a Circulating Cooling Water System. Zairyo To Kankyo/ Corrosion Engineering, 2020, 69, 17-25.	0.0	2
85	Advanced Materials Design by Electrochemical Approach: Self-Organizing Anodization. , 2013, , 127-136.		1
86	Structural Changes of Passive Films during Cyclic Polarization of Stainless Steels in EMI-TFSI Ionic Liquid. Zairyo To Kankyo/ Corrosion Engineering, 2016, 65, 520-526.	0.0	1
87	Cell Activity on Type 316L Stainless Steel with Self-Organized Nanopores Formed by Anodic Polarization. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2018, 82, 269-276.	0.2	1
88	Fast Current-Controlled Polarization for the Analysis of Rapid Cathodic Process on Anodized Metal. Journal of the Electrochemical Society, 2019, 166, C3443-C3447.	1.3	1
89	Formation of Nanotubular Films Based on Anodization of Ti and Ti Alloys. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2018, 69, 600-604.	0.1	1
90	Formation of titania nanotubes by anodization of Ti and its alloys and their biomedical applications. Denki Kagaku, 2021, 89, 334-339.	0.0	1

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91	Effect of Alloying Elements on Electrochemical Behavior of Fe-18Cr Alloy. ECS Transactions, 2009, 16, 313-319.	0.3	0
92	é™½æ¥µé…¸åŒ–ã«ã‚ˆã‚‹é‡‘å±žé…¸åŒ–ç‰©ãƒŠãƒŽãƒãƒ¥ãƒ¼ãƒ–ã®å‰µè£½ã¨ãã®å¿œç”¨. Hyomen Gijutsu/Journal of the Surface Fi	0.1	0
93	Formation of Oxide Nanotubes and Bamboo-Like Structures via Oxidation of Cu, Fe and Ni Nanowires. Materials Science Forum, 2010, 658, 232-235.	0.3	0
94	Electrochemical Properties of Oxide Films Formed on Cold Worked Alloy600 and Alloy690 in Simulated PWR Primary Water Environments. Zairyo To Kankyo/ Corrosion Engineering, 2015, 64, 501-507.	0.0	0
95	Drug Release Characteristic of Type 316L Stainless Steel with Self-Organized Nanopores. Journal of Smart Processing, 2021, 10, 256-260.	0.0	0
96	Anodization of Ti and its Alloys: Current Status and Perspectives. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2021, 72, 211-215.	0.1	0
97	Crystallographical Characterization of Initiation of Intergranular Stress Corrosion Cracking of Alloy 600 in PWR Environment. , 2011, , 1685-1698.		0
98	Effect of Trace Amounts of Salts on Properties of Passive Films Formed on SUS 304 Stainless Steel under Atmospheric Environment. Zairyo To Kankyo/ Corrosion Engineering, 2013, 62, 148-152.	0.0	0
99	Corrosion Behavior of Carbon Steel Coated with a Zinc-Rich Paint Containing Aluminum Sulfate and Barium Oxide under Wet and Dry Cyclic Conditions. Zairyo To Kankyo/ Corrosion Engineering, 2021, 70, 327-333.	0.0	0
100	Corrosion Resistance of Titanium. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2022, 73, 33-37.	0.1	0
101	Dissolution and Repassivation of Metallic Biomaterials in Bio-mechanochemical Environment. Materia Japan, 2022, 61, 393-398.	0.1	0