

Masatoshi Sakairi

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Formation and Breakdown of Anodic Oxide Films on Aluminum in Boric Acid/Borate Solutions. Journal of the Electrochemical Society, 1997, 144, 866-876.	2.9	89
2	Formation of Al-Zr composite oxide films on aluminum by sol-gel coating and anodizing. Journal of Electroanalytical Chemistry, 1999, 473, 250-255.	3.8	87
3	Anodizing of Aluminum Coated with Silicon Oxide by a Sol-Gel Method. Journal of the Electrochemical Society, 2001, 148, B473.	2.9	61
4	Structure, Morphology, and Dielectric Properties of Nanocomposite Oxide Films Formed by Anodizing of Sputter-Deposited Ta-Al Bilayers. Journal of the Electrochemical Society, 2004, 151, F257.	2.9	42
5	Formation of Composite Oxide Films on Aluminum by Sol-Gel Coating and Anodizing "For the Development of High Performance Aluminum Electrolytic Capacitors". Electrochemistry, 2001, 69, 407-413.	1.4	39
6	Nanostructured anodic-alumina-based dielectrics for high-frequency integral capacitors. Thin Solid Films, 2014, 550, 486-494.	1.8	39
7	Effects of metal cations on corrosion of mild steel in model fresh water. Corrosion Science, 2016, 111, 302-312.	6.6	31
8	Fabrication of a meniscus microlens array made of anodic alumina by laser irradiation and electrochemical techniques. Electrochimica Acta, 2013, 94, 269-276.	5.2	26
9	Corrosion inhibition of mild steel by metal cations in high pH simulated fresh water at different temperatures. Corrosion Science, 2019, 153, 100-108.	6.6	23
10	Area-selective microscale metallization on porous anodic oxide film of aluminium. Electrochemistry Communications, 2007, 9, 1596-1601.	4.7	22
11	Development of a novel microstructure fabrication method with co-axial dual capillary solution flow type droplet cells and electrochemical deposition. Electrochimica Acta, 2008, 54, 616-622.	5.2	22
12	Effects of metal cations on mild steel corrosion in 10 mM Cl ⁻ aqueous solution. Corrosion Science, 2018, 131, 17-27.	6.6	21
13	Effect of metal cations on corrosion behavior and surface film structure of the A3003 aluminum alloy in model tap waters. Journal of Solid State Electrochemistry, 2014, 18, 325-332.	2.5	20
14	Corrosion inhibition effects of metal cations on SUS304 in 0.5 M Cl ⁻ aqueous solution. Corrosion Science, 2018, 140, 8-17.	6.6	20
15	Repassivation behavior of titanium in artificial saliva investigated with a photon rupture method. Electrochimica Acta, 2011, 56, 1786-1791.	5.2	19
16	Influence of desiccation procedures on the surface wettability and corrosion resistance of porous aluminium anodic oxide films. Corrosion Science, 2012, 55, 332-338.	6.6	19
17	Anodizing of Aluminum Coated with Zirconium Oxide by a Sol-Gel Process I. Effect of Heat Treatment on the Formation of the Anodic Oxide Film. Electrochemistry, 1999, 67, 1243-1248.	1.4	18
18	Effect of Surface Conditions and Relative Humidity on Hydrogen Permeation Behavior of Zinc Coated Steels during Wet and Dry Corrosion. ISIJ International, 2016, 56, 452-458.	1.4	16

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19	Inhibition Ability of Gluconates for Fresh Water Corrosion of Mild Steel Enhanced by Metal Cations. Journal of the Electrochemical Society, 2017, 164, C498-C504.	2.9	15
20	Change in the Structure and Dielectric Properties of Niobium Anodic Oxide Films during Potentiostatic Anodizing. Electrochemistry, 2004, 72, 624-632.	1.4	15
21	Fabrication of Cu Micro-rods with Co-axial Dual Capillary Solution Flow Type Droplet Cell and Electrodeposition with the Cell. Electrochemistry, 2010, 78, 118-121.	1.4	14
22	Nb ₂ O ₅ Deposition on Aluminum from NbCl ₅ -used Sol and Anodizing of Nb ₂ O ₅ -coated Al. Electrochemistry, 2007, 75, 573-575.	1.4	13
23	Effect of Cations on Corrosion Behavior of Aluminum Alloy in Model Tap Water. Zairyo To Kankyo/ Corrosion Engineering, 2010, 59, 330-331.	0.2	13
24	Anodizing of Aluminum Coated with Zirconium Oxide by a Sol-Gel Coating.. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 1999, 50, 359-366.	0.2	11
25	Growth of porous type anodic oxide films at micro-areas on aluminum exposed by laser irradiation. Electrochimica Acta, 2009, 54, 7018-7024.	5.2	11
26	Patterning of Aluminum Surface with Laser Irradiation and Nickel Electrodeposition. I. Removal of Anodic Oxide Films by Laser Irradiation.. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 1998, 49, 1220-1226.	0.2	10
27	Effects of Zn ²⁺ Concentration on the Corrosion of Mild Steel in NaCl Aqueous Solutions. Journal of the Electrochemical Society, 2019, 166, C83-C90.	2.9	10
28	Carbon nanohorn coating by electrodeposition accelerate bone formation on titanium implant. Artificial Cells, Nanomedicine and Biotechnology, 2021, 49, 20-29.	2.8	9
29	Local Removal of Thick Anodic Oxide Film on Aluminum with A Photon Rupture Technique and Local Metal Deposition. Electrochemistry, 2003, 71, 920-926.	1.4	9
30	Analysis of chemical compositions and morphology of surface films formed on 3003 aluminum alloy by immersion in different cation containing model tap waters. Surface and Interface Analysis, 2013, 45, 1517-1521.	1.8	8
31	Formation of layered structure porous-type anodic alumina films locally with a solution flow-type micro-droplet cell. Surface and Interface Analysis, 2016, 48, 921-925.	1.8	8
32	The breakdown and repassivation of passive films on iron whisker and amorphous alloys. Corrosion Science, 1990, 31, 361-366.	6.6	7
33	Initial Stage of Localized Corrosion in Artificial Pits Formed with Photon Rupture on 55mass%Al-Zn Coated Steels. ISIJ International, 2006, 46, 1218-1222.	1.4	7
34	Area Selective Formation of Porous Type Aluminum Anodic Oxide Film by a Solution Flow-Type Micro Droplet Cell. ECS Transactions, 2010, 33, 57-63.	0.5	7
35	SCC Mechanism Near Fusion Line of Low C-13%Cr Welded Joints. Zairyo To Kankyo/ Corrosion Engineering, 2011, 60, 196-201.	0.2	7
36	The effects of film thickness and incorporated anions on pitting corrosion of aluminum with barrier-type oxide films formed in neutral borate and phosphate electrolytes. Journal of Solid State Electrochemistry, 2014, 18, 369-376.	2.5	7

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37	Effect of Surface Conditions and Specimen Composition on Hydrogen Permeation Behavior of Coated and Uncoated Steels during Wet and Dry Corrosion at a Constant Dew Point. ISIJ International, 2016, 56, 465-471.	1.4	7
38	Effect of a Kind of Metal Cation on Corrosion Mechanism of A3003 Aluminum Alloy in Tap Water. Materials Transactions, 2016, 57, 1539-1546.	1.2	7
39	Electrochemistry for Corrosion Fundamentals. Springer Briefs in Molecular Science, 2018, . .	0.1	7
40	Role of Metal Cations on Corrosion of Coated Steel Substrate in Model Aqueous Layer. ISIJ International, 2018, 58, 1616-1622.	1.4	7
41	Fast Fabrication of Localized Porous Alumina Patterns with 3D Printed Microdroplet Cell. Journal of the Electrochemical Society, 2020, 167, 081501.	2.9	7
42	New Developments in Chemical Wet Processes. Fabrication of Printed Circuit Board by Anodizing of Aluminum.. Hyomen Kagaku, 2001, 22, 370-375.	0.0	7
43	Electroless Ni-P Deposition through Imperfections in Anodic Oxide Films on Aluminum and Al5052 Alloy. Electrochemistry, 2003, 71, 260-265.	1.4	7
44	Influence of metal cations on inhibitor performance of gluconates in the corrosion of mild steel in fresh water. Corrosion Reviews, 2018, 36, 105-113.	2.0	6
45	Development of a Low Solution Resistance Type Solution Flow Droplet Cell and Investigation of Its Electrochemical Performance. ISIJ International, 2010, 50, 1466-1470.	1.4	6
46	Electrochemical Detection of Hydrogen Generated by Atmospheric Corrosion of Scratches in Zinc Coated steels-Effect of the Scratched Area-. Zairyo To Kankyo/ Corrosion Engineering, 2011, 60, 435-437.	0.2	6
47	Initial Stage of Localized Corrosion of Al-9 mass% Si Coated Steels after Removal with a Photon Rupture Method in Solutions. Zairyo To Kankyo/ Corrosion Engineering, 2003, 52, 534-538.	0.2	5
48	Initial stage of localized corrosion in artificial pits formed with photon rupture on Zn ⁵ mass% Al alloy-coated steel. Corrosion Science, 2007, 49, 2362-2370.	6.6	5
49	Evaluation of Materials Surface Using Capillary Micro-cell Technique. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2008, 59, 863-863.	0.2	4
50	Effect of Potential, Temperature, and Fluoride Ions on the Repassivation Kinetics of Titanium in Phosphate Buffered Saline Solution with the Photon Rupture Method. Laser Chemistry, 2009, 2009, 1-8.	0.5	4
51	Local Cu Electro-Plating on Non-Conductive Substrate and Fabrication of Metal Structure with Solution Flow Type Micro-Droplet Cell. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2011, 62, 511-515.	0.2	4
52	Reaction Area Selected Electrochemical Corrosion Test Methods. Zairyo To Kankyo/ Corrosion Engineering, 2015, 64, 66-72.	0.2	4
53	3D printed solution flow type microdroplet cell for simultaneous area selective anodizing. Journal of Advanced Research, 2020, 26, 43-51.	9.5	4
54	Hydrogen Permeation Behavior of Steel under Wet/dry Corrosion with Changes in Relative Humidity at the Dry Period. ISIJ International, 2021, 61, 1194-1200.	1.4	4

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55	Influence of Zinc Ions on Initial Stage of Localized Corrosion of Zn and Zn-Al Alloy Coated Steels with Photon Rupture Method. ISIJ International, 2008, 48, 988-993.	1.4	4
56	Formation of Model Scratch on Pre-painted Coated Steel by Laser Machining and Its Wet/Dry Corrosion Behavior. Zairyo To Kankyo/ Corrosion Engineering, 2010, 59, 379-381.	0.2	4
57	Microstructure of Anodic Oxide Films on Valve Metal and Its Application to Micro- and Nano-Technology. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2003, 54, 436-441.	0.2	3
58	Line Shaped Porous Type Anodic Oxide Film Formation on Aluminum by Sf-MDC with Coated Pt Wire Electrode. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2014, 65, 385-390.	0.2	3
59	Formation of oxide films for high-capacitance aluminum electrolytic capacitor by liquid-phase deposition and anodizing. Surface and Interface Analysis, 2016, 48, 899-905.	1.8	3
60	Local anodizing of aluminum with a solution flow-type micro-droplet cell and fabrication of through-hole-type porous alumina. Keikin-zoku/Journal of Japan Institute of Light Metals, 2018, 68, 401-405.	0.4	3
61	High throughput electrochemically driven metal microprinting with multicapillary droplet cell. Materials Today Communications, 2021, 26, 102053.	1.9	3
62	Hydrogen Absorption Mechanism into Iron in Aqueous Solution Including Metal Cations by Laser Ablation Tests and First-principles Calculations. ISIJ International, 2021, 61, 1085-1090.	1.4	3
63	Local Electrochemical Measurements by 3D Printed Sf-MDC Equipped with Optical Microscope. Journal of the Electrochemical Society, 2021, 168, 061505.	2.9	3
64	Synergistic Effects of Metal Cations and Sodium Gluconate on the Inhibition of Freshwater Corrosion of Mild Steel. Materials Transactions, 2021, 62, 815-820.	1.2	3
65	Investigation of the Corrosion Inhibition Performance of Metal Cations for Mild Steel in Simulated Fresh Water at High Temperature. Zairyo To Kankyo/ Corrosion Engineering, 2018, 67, 457-461.	0.2	3
66	Influence of Sulfide Inclusions on the Pit Embryo of Stainless Steels. Zairyo To Kankyo/ Corrosion Engineering, 1991, 40, 183-187.	0.2	2
67	Micro- and Nano-Technologies Based on Anodizing of Aluminum-Combination of Laser Irradiation with Electrochemical Process. Electrochemistry, 2009, 77, 30-43.	1.4	2
68	Surface Analysis of Al Alloys with X-ray Photoelectron and Auger Electron Spectroscopies. Zairyo To Kankyo/ Corrosion Engineering, 2015, 64, 281-284.	0.2	2
69	Changes of Oxygen Diffusion Behavior in NaCl Thin Films Formed on Zn Sheets with Temperature. Zairyo To Kankyo/ Corrosion Engineering, 2017, 66, 401-404.	0.2	2
70	Auger electron spectroscopic analysis of corrosion products formed on A3003 aluminum alloy in model fresh water with different Zn ²⁺ concentration. Surface and Interface Analysis, 2019, 51, 1207-1213.	1.8	2
71	Development of an Area-selective Technique for Electrochemical Hydrogen Detection with Laser Local Activation. ISIJ International, 2016, 56, 483-486.	1.4	2
72	Influence of Wettability on Corrosion Resistance of Anodized Aluminum in NaCl Solution. Zairyo To Kankyo/ Corrosion Engineering, 2010, 59, 335-337.	0.2	2

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73	Hydrogen Permeation Behavior Changed with Size of Scratch Formed on Zinc Coated Steels During Wet-Dry Cycle Corrosion. <i>Zairyo To Kankyo/ Corrosion Engineering</i> , 2017, 66, 357-360.	0.2	2
74	Metallization of Oxide/Hydroxide Film of Aluminum: the Palladium Activation Techniques. <i>Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan</i> , 2009, 60, 208-212.	0.2	1
75	Formation of alumina films with nano-dot structures by successive liquid phase deposition, anodizing, and substrate dissolution. <i>Surface and Interface Analysis</i> , 2013, 45, 1510-1516.	1.8	1
76	Investigation of Corrosion Behavior with Laser Irradiation and Electrochemical Techniques. <i>Hyomen Kagaku</i> , 2015, 36, 41-46.	0.0	1
77	Hydrogen Permeation Behavior of Scratch Formed on Zn Coated Steels in Simulated Atmospheric Corrosion Environment. <i>ISIJ International</i> , 2021, 61, 1120-1126.	1.4	1
78	Micro-electrochemical Approach for Corrosion Study. <i>Springer Briefs in Molecular Science</i> , 2018, , 97-116.	0.1	1
79	Effect of Anodizing Time on Multiscale Porous Structure of Ti-Al Alloy Microchannel Wall. <i>Materials Transactions</i> , 2019, 60, 519-524.	1.2	1
80	Formation of Al-Si Composite Oxide Films by Sol-Gel Coating/Anodizing. <i>Materia Japan</i> , 2003, 42, 911-911.	0.1	1
81	Localized Dissolution of Zn-Al Alloy Coated Steel in Neutral Solution with Cl ⁻ by Photon Rupture Method. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , 2006, 92, 68-74.	0.4	1
82	Influence of Metal Cations on Corrosion Behavior of Carbon Steel in Model Fresh Water. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , 2021, 107, 1066-1073.	0.4	1
83	Effect of Layer Thickness and Temperature Difference on Oxygen Diffusion Behavior in Thin Solution Layer Formed on Metal. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , 2021, 107, 1029-1035.	0.4	1
84	Effect of anodizing time on multiscale porous structure of Ti-Al alloy microchannel wall. <i>Keikinzoku/Journal of Japan Institute of Light Metals</i> , 2017, 67, 589-594.	0.4	0
85	Advanced Electrochemical Methods for Corrosion Study-Detection of Permeated Hydrogen by Electrochemically. <i>Zairyo To Kankyo/ Corrosion Engineering</i> , 2018, 67, 191-196.	0.2	0
86	Local Anodizing by Solution Flow Type Micro-Droplet Cell and its Application. <i>Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan</i> , 2019, 70, 20-24.	0.2	0
87	Hydrogen Permeation Behavior of Scratch on Zn Coated Steel during 1000 Hours Wet and Dry Corrosion Test. <i>ISIJ International</i> , 2021, 61, 1127-1134.	1.4	0
88	Effect of Scratch Size on Hydrogen Permeation Behavior of Zinc Coated Steel during Wet and Dry Corrosion Tests. <i>ISIJ International</i> , 2021, 61, 1099-1103.	1.4	0
89	Modeling and Simulation of Atmospheric Corrosion of Carbon Steel Considering Environmental Factor. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , 2021, 107, 998-1003.	0.4	0
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91	Preface to the Special Issue "Toward Optimization of Maintenance for Aging Infrastructures"; Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2021, 107, 997-997.	0.4	0
92	Effect of Solution Temperatures on Electrochemical Behavior of Aluminum Alloys and Carbon Steel in 20 Mass% NaCl Solutions. Zairyo To Kankyo/ Corrosion Engineering, 2022, 71, 138-142.	0.2	0
93	Effects of a Corrosion Inhibitor on the Corrosion of Steels under Thin Solution Layers. Zairyo To Kankyo/ Corrosion Engineering, 2022, 71, 133-137.	0.2	0