

# Yu Sugawara

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

82

papers

1,150

citations

22

h-index

31

g-index

132

ext. papers

1,482

ext. citations

3.3

avg, IF

4.68

L-index

#	Paper	IF	Citations
82	High-Temperature Heat-Treatment at 1673 K: Improvement of Pitting Corrosion Resistance at Inclusions of Type 304 Stainless Steel under Applied Stress. <i>Materials Transactions</i> , <b>2022</b> , 63, 265-268	1.3	1
81	Beneficial role of retained austenite in pitting corrosion resistance of Fe-C-Si-Mn steel in chloride environments. <i>Corrosion Science</i> , <b>2022</b> , 200, 110251	6.8	1
80	Visualizing the Crevice Corrosion Behavior of Nitrogen-Containing Stainless Steel: Changes in pH and Cl <sup>-</sup> Distributions with Initiation, Growth, and Local Repassivation. <i>Zairyo To Kankyo/Corrosion Engineering</i> , <b>2021</b> , 70, 250-256	0.5	
79	Electrochemical Properties of Microstructures of Carbon Steels and Metallurgical Approaches for Improving Corrosion Resistance. <i>Materia Japan</i> , <b>2021</b> , 60, 784-792	0.1	
78	Cerium addition to CaS inclusions in stainless steel: Insolubilizing water-soluble inclusions and improving pitting corrosion resistance. <i>Corrosion Science</i> , <b>2021</b> , 180, 109222	6.8	4
77	Improved Responsivity and Sensitivity of Hydrogen Mapping Technique in Pure Iron Using WO <sub>3</sub> Thin Film by Control of Pd Intermediate Layer. <i>ISIJ International</i> , <b>2021</b> , 61, 1201-1208	1.7	0
76	The role of applied stress in the anodic dissolution of sulfide inclusions and pit initiation of stainless steels. <i>Corrosion Science</i> , <b>2021</b> , 183, 109312	6.8	5
75	Effect of anodizing on galvanic corrosion resistance of Al coupled to Fe or type 430 stainless steel in diluted synthetic seawater. <i>Corrosion Science</i> , <b>2021</b> , 179, 109145	6.8	4
74	Morphological Change and Open-circuit Potential of Single Metastable Pit on AA1050 Aluminum in NaCl Solution. <i>Journal of the Electrochemical Society</i> , <b>2021</b> , 168, 021504	3.9	3
73	Improving the Pitting Corrosion Resistance of AA1050 Aluminum by Removing Intermetallic Particles during Conversion Treatments. <i>Materials Transactions</i> , <b>2021</b> , 62, 1160-1167	1.3	0
72	Effect of Sensitization on Pitting Corrosion at MnS and CrS in Type 304 Stainless Steel. <i>Journal of the Electrochemical Society</i> , <b>2021</b> , 168, 091504	3.9	1
71	Pitting at inclusions of the equiatomic CoCrFeMnNi alloy and improving corrosion resistance by potentiodynamic polarization in H <sub>2</sub> SO <sub>4</sub> . <i>Corrosion Science</i> , <b>2021</b> , 191, 109748	6.8	8
70	Real-time in situ observation of the corrosion process of die-cast AZ91D magnesium alloy in NaCl solutions under galvanostatic polarization. <i>Corrosion Science</i> , <b>2021</b> , 192, 109834	6.8	0
69	Roles of Interstitial Nitrogen, Carbon, and Boron in Steel Corrosion: Generation of Oxyanions and Stabilization of Electronic Structure. <i>Journal of the Electrochemical Society</i> , <b>2020</b> , 167, 081503	3.9	7
68	Artificial MnS Inclusions in Stainless Steel: Fabrication by Spark Plasma Sintering and Corrosion Evaluation by Microelectrochemical Measurements. <i>ISIJ International</i> , <b>2020</b> , 60, 196-198	1.7	7
67	Pit initiation on sensitized Type 304 stainless steel under applied stress: Correlation of stress, Cr-depletion, and inclusion dissolution. <i>Corrosion Science</i> , <b>2020</b> , 167, 108506	6.8	27
66	Elucidation of the Initiation of Pitting Corrosion and the Growth of Filiform Corrosion of AZ91D in Aqueous NaCl Electrolyte. <i>ECS Meeting Abstracts</i> , <b>2020</b> , MA2020-02, 3561-3561	0	

65	High-Temperature Annealing of Ferritic Stainless Steel: Modification of Sulfide Inclusion Properties and Inhibition of Inclusion Dissolution. <i>Zairyo To Kankyo/ Corrosion Engineering</i> , <b>2020</b> , 69, 194-198	0.5	1
64	Effect of Impurity Elements on Localized Corrosion of Zirconium in Chloride Containing Environment. <i>Journal of the Electrochemical Society</i> , <b>2020</b> , 167, 141507	3.9	2
63	A Corrosion Resistant Sintered Stainless Steel: Type 304L Containing Mo-Rich Phases. <i>Materials Transactions</i> , <b>2020</b> , 61, 2248-2251	1.3	3
62	Passivity of (Mn,Cr)S inclusions in type 304 stainless steel: The role of Cr and the critical concentration for preventing inclusion dissolution in NaCl solution. <i>Corrosion Science</i> , <b>2020</b> , 176, 109060	6.8	5
61	First-principles analysis of the inhibitive effect of interstitial carbon on an active dissolution of martensitic steel. <i>Corrosion Science</i> , <b>2020</b> , 163, 108251	6.8	9
60	Effectiveness of an intercritical heat-treatment on localized corrosion resistance at the microstructural boundaries of medium-carbon steels. <i>Corrosion Science</i> , <b>2019</b> , 154, 159-177	6.8	21
59	Elucidating Electrochemical Properties at the Boundary between MnS and Steel Matrix: Towards the Improvement of Pitting Corrosion Resistance of Stainless Steels. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , <b>2019</b> , 105, 207-214	0.5	3
58	Morphological Characteristics of Trenching around MnS Inclusions in Type 316L Stainless Steel: The Role of Molybdenum in Pitting Corrosion Resistance. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, C3081-C3089	3.9	25
57	Anodic Polarization Characteristics and Electrochemical Properties of Fe <sub>3</sub> C in Chloride Solutions. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, C345-C351	3.9	10
56	NH <sub>4</sub> <sup>+</sup> Generation: The Role of NO <sub>3</sub> <sup>-</sup> in the Crevice Corrosion Repassivation of Type 316L Stainless Steel. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, C250-C260	3.9	4
55	Mechanism for the Morphological Change from Trenching to Pitting around Intermetallic Particles in AA1050 Aluminum. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, C19-C32	3.9	9
54	A Methodology for Fabrication of Highly Pitting Corrosion-Resistant Type 304 Stainless Steel by Plasma Carburizing and Post-Pickling Treatment. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, C441-C449	3.9	10
53	III. Advanced Electrochemical Methods for Corrosion Study Micro-scale Polarization Zairyo To Kankyo/ Corrosion Engineering, <b>2018</b> , 67, 197-203	0.5	2
52	Observations on Pit Initiation Behavior of Carbon Steel Using Microelectrochemical System with Confocal Laser Scanning Microscopy. <i>Zairyo To Kankyo/ Corrosion Engineering</i> , <b>2018</b> , 67, 497-501	0.5	0
51	Formation of Pt Skin Layer on Ordered and Disordered Pt-Co Alloys and Corrosion Resistance in Sulfuric Acid. <i>Electrocatalysis</i> , <b>2018</b> , 9, 539-549	2.7	7
50	Detection of Hydrogen Distribution in Pure Iron Using WO <sub>3</sub> Thin Film. <i>ISIJ International</i> , <b>2018</b> , 58, 1860-1867	3.9	3
49	Relationships between Pitting Corrosion Potentials and MnS Dissolution of 518 Mass% Cr Steels. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, C732-C742	3.9	6
48	Improving Pitting Corrosion Resistance at Inclusions and Ductility of a Martensitic Medium-Carbon Steel: Effectiveness of Short-Time Tempering. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, C711-C721	3.9	9

47	III. Advanced Electrochemical Methods for Corrosion Study Electrochemical Quartz Crystal Microbalance <i>Zairyo To Kankyo/ Corrosion Engineering</i> , <b>2018</b> , 67, 156-161	0.5	
46	Real-Time Microelectrochemical Observations of Very Early Stage Pitting on Ferrite-Pearlite Steel in Chloride Solutions. <i>Journal of the Electrochemical Society</i> , <b>2017</b> , 164, C261-C268	3.9	25
45	Electrochemical Passivation for Sm <sub>2</sub> Fe <sub>17</sub> N <sub>3</sub> Magnetic Powders in Non-Aqueous Solvents. <i>Electrochimica Acta</i> , <b>2017</b> , 224, 386-396	6.7	1
44	Local Electrochemistry and In Situ Microscopy of Pitting at Sensitized Grain Boundary of Type 304 Stainless Steel in NaCl Solution. <i>Journal of the Electrochemical Society</i> , <b>2017</b> , 164, C779-C787	3.9	14
43	Micro-electrochemical investigation on the role of Mg in sacrificial corrosion protection of 55mass%Al-Zn-Mg coated steel. <i>Corrosion Science</i> , <b>2017</b> , 129, 126-135	6.8	11
42	In situ monitoring of crevice corrosion morphology of Type 316L stainless steel and repassivation behavior induced by sulfate ions. <i>Corrosion Science</i> , <b>2017</b> , 127, 131-140	6.8	19
41	Pitting Corrosion Resistance of Martensite of AISI 1045 Steel and the Beneficial Role of Interstitial Carbon. <i>Journal of the Electrochemical Society</i> , <b>2017</b> , 164, C962-C972	3.9	24
40	Pitting at the Grain Boundary of Type 304 Stainless Steel in NaCl Solution: The Role of Oxide Inclusions and Segregation. <i>Journal of the Electrochemical Society</i> , <b>2017</b> , 164, C991-C1002	3.9	8
39	Micro-Electrochemical Properties of CeS Inclusions in Stainless Steel and Inhibiting Effects of Ce <sup>3+</sup> Ions on Pitting. <i>Journal of the Electrochemical Society</i> , <b>2017</b> , 164, C901-C910	3.9	7
38	Micro-Electrochemical In Situ Observation of Pit Initiation at Precipitates in AA5182 Al-Mg Alloy in 0.1 M NaCl. <i>ECS Transactions</i> , <b>2017</b> , 80, 553-564	1	3
37	Effect of Applied Stress on Pitting Corrosion Behavior of Type 304 Stainless Steel in Chloride Environment. <i>ECS Transactions</i> , <b>2017</b> , 80, 1407-1413	1	3
36	Challenges and Prospects in Corrosion Science and Technology. <i>Materia Japan</i> , <b>2017</b> , 56, 175-179	0.1	4
35	Simultaneous visualization of pH and Cl <sup>-</sup> distributions inside the crevice of stainless steel. <i>Corrosion Science</i> , <b>2016</b> , 106, 298-302	6.8	30
34	Effect of atmospheric aging on dissolution of MnS inclusions and pitting initiation process in type 304 stainless steel. <i>Corrosion Science</i> , <b>2016</b> , 106, 25-34	6.8	29
33	Effect of Phosphate and Chromate Pigments on Sacrificial Corrosion Protection by Al-Zn Coating and Delamination Mechanism of Pre-painted Galvalume Steel. <i>ISIJ International</i> , <b>2016</b> , 56, 2267-2275	1.7	3
32	A Microelectrochemical Approach to Understanding Hydrogen Absorption into Steel during Pitting Corrosion. <i>ISIJ International</i> , <b>2016</b> , 56, 495-497	1.7	5
31	Microelectrochemical Aspects of Interstitial Carbon in Type 304 Stainless Steel: Improving Pitting Resistance at MnS Inclusion. <i>Journal of the Electrochemical Society</i> , <b>2015</b> , 162, C270-C278	3.9	29
30	Corrosion Resistance of a Free-Cutting Soft-Magnetic Stainless Steel in Pure Water. <i>Materials Transactions</i> , <b>2015</b> , 56, 1814-1820	1.3	2

29	Microelectrochemistry of Sulfide Inclusions and Pit Initiation Mechanisms of Stainless Steels. <i>Hyomen Kagaku</i> , <b>2015</b> , 36, 18-23		4
28	Electrochemical Roles of Anti-corrosive Pigments in Sacrificial Corrosion Protection of Painted Galvanized Steel and their Relation to Organic Coating Delamination. <i>ISIJ International</i> , <b>2015</b> , 55, 2443-2449	1.7	1
27	Effects of Corrosion and Cracking of Sulfide Inclusions on Pit Initiation in Stainless Steel. <i>Journal of the Electrochemical Society</i> , <b>2014</b> , 161, C494-C500	3.9	21
26	Evaluation of the optimal exposure settings for occlusal photography with digital cameras. <i>Pediatric Dental Journal</i> , <b>2014</b> , 24, 89-96	0.5	4
25	Dependency of the formation of Au-stabilized nanoporous copper on the dealloying temperature. <i>Microporous and Mesoporous Materials</i> , <b>2014</b> , 186, 181-186	5.3	9
24	Microelectrochemical Study on the Surface Oxidation of Pt: The Effects of Crystal Orientation and Grain Boundary. <i>Materials Transactions</i> , <b>2014</b> , 55, 735-738	1.3	1
23	Direct Observation of Pit Initiation Process on Type 304 Stainless Steel. <i>Materials Transactions</i> , <b>2014</b> , 55, 857-860	1.3	29
22	Uniform evolution of nanoporosity on amorphous Ti-Cu alloys. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2014</b> , 14, 7879-83	1.3	2
21	Fabrication of nanoporous copper by dealloying of amorphous TiCuAg alloys. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 586, S134-S138	5.7	33
20	Nanoporous palladium fabricated from an amorphous Pd <sub>42.5</sub> Cu <sub>30</sub> Ni <sub>7.5</sub> P <sub>20</sub> precursor and its ethanol electro-oxidation performance. <i>Electrochimica Acta</i> , <b>2013</b> , 108, 512-519	6.7	31
19	Dealloying behavior of amorphous binary TiCu alloys in hydrofluoric acid solutions at various temperatures. <i>Journal of Alloys and Compounds</i> , <b>2013</b> , 581, 567-572	5.7	17
18	Effects of the initial microstructure of TiCu alloys on final nanoporous copper via dealloying. <i>Journal of Alloys and Compounds</i> , <b>2013</b> , 557, 166-171	5.7	28
17	Nickel-stabilized nanoporous copper fabricated from ternary TiCuNi amorphous alloys. <i>Materials Letters</i> , <b>2013</b> , 94, 128-131	3.3	22
16	Elaboration of nanoporous copper by modifying surface diffusivity by the minor addition of gold. <i>Microporous and Mesoporous Materials</i> , <b>2013</b> , 165, 257-264	5.3	28
15	The Role of Oxide Films on TiS and Ti <sub>4</sub> C <sub>2</sub> S <sub>2</sub> Inclusions in the Pitting Corrosion Resistance of Stainless Steels. <i>Journal of the Electrochemical Society</i> , <b>2013</b> , 160, C262-C269	3.9	22
14	Nanoporous Copper Dealloyed from a Nanocrystallized TiCu Alloy. <i>Materials Science Forum</i> , <b>2013</b> , 750, 72-75	0.4	2
13	Pit Initiation Mechanism at MnS Inclusions in Stainless Steel: Synergistic Effect of Elemental Sulfur and Chloride Ions. <i>Journal of the Electrochemical Society</i> , <b>2013</b> , 160, C511-C520	3.9	75
12	Dealloying Behaviours of an Equiatomic TiCu Alloy. <i>Materials Transactions</i> , <b>2013</b> , 54, 1120-1125	1.3	6

11	Dissolution Mechanism of Platinum in Sulfuric Acid Solution. <i>Journal of the Electrochemical Society</i> , <b>2012</b> , 159, F779-F786	3.9	111
10	Fabrication of nanoporous copper by dealloying amorphous binary TiCu alloys in hydrofluoric acid solutions. <i>Intermetallics</i> , <b>2012</b> , 29, 14-20	3.5	54
9	Bimodal nanoporous nickel prepared by dealloying Ni <sub>38</sub> Mn <sub>62</sub> alloys. <i>Intermetallics</i> , <b>2012</b> , 31, 157-164	3.5	30
8	Improvement of Pitting Corrosion Resistance of Type 316L Stainless Steel by Potentiostatic Removal of Surface MnS Inclusions. <i>International Journal of Corrosion</i> , <b>2012</b> , 2012, 1-6	2	23
7	A Microelectrochemical System for In Situ High-Resolution Optical Microscopy: Morphological Characteristics of Pitting at MnS Inclusion in Stainless Steel. <i>Journal of the Electrochemical Society</i> , <b>2012</b> , 159, C341-C350	3.9	71
6	Effects of pH on Dissolution and Surface Area Loss of Platinum Due to Potential Cycling. <i>Journal of the Electrochemical Society</i> , <b>2012</b> , 159, C190-C194	3.9	23
5	Visualization of pH and pCl Distributions: Initiation and Propagation Criteria for Crevice Corrosion of Stainless Steel. <i>Journal of the Electrochemical Society</i> , <b>2012</b> , 159, C289-C297	3.9	30
4	Fabrication of Ultrafine Nanoporous Copper by the Minor Addition of Gold. <i>Materials Transactions</i> , <b>2012</b> , 53, 1765-1769	1.3	17
3	141 Study of Methanol Fueled Single-Chamber SOFC for Intermediate-Temperature Operation. <i>The Proceedings of Conference of Tohoku Branch</i> , <b>2011</b> , 2011.46, 86-87	0	
2	EQCM Study on Dissolution of Ruthenium in Sulfuric Acid. <i>Journal of the Electrochemical Society</i> , <b>2008</b> , 155, B897	3.9	38
1	First-Principles Investigation on Work Function of Martensitic Carbon Steels: Effect of Interstitial Carbon on Anodic Dissolution Resistance. <i>Journal of the Electrochemical Society</i> ,	3.9	1