Eiji Akiyama

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/917105/publications.pdf

Version: 2024-02-01

225	7,454	57758	71685
papers	citations	44 h-index	76 g-index

225	225	225	3303
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hydrogen-assisted decohesion and localized plasticity in dual-phase steel. Acta Materialia, 2014, 70, 174-187.	7.9	366
2	Effect of hydrogen on the fracture behavior of high strength steel during slow strain rate test. Corrosion Science, 2007, 49, 4081-4097.	6.6	336
3	Overview of hydrogen embrittlement in high-Mn steels. International Journal of Hydrogen Energy, 2017, 42, 12706-12723.	7.1	228
4	Effect of hydrogen and stress concentration on the notch tensile strength of AISI 4135 steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 398, 37-46.	5.6	226
5	Hydrogen-assisted failure in a twinning-induced plasticity steel studied under in situ hydrogen charging by electron channeling contrast imaging. Acta Materialia, 2013, 61, 4607-4618.	7.9	218
6	Storage and Release of Soluble Hexavalent Chromium from Chromate Conversion Coatings Equilibrium Aspects of Cr[sup VI] Concentration. Journal of the Electrochemical Society, 2000, 147, 2556.	2.9	177
7	Hydrogen embrittlement associated with strain localization in a precipitation-hardened Feâ€“Mnâ€“Alâ€“C light weight austenitic steel. International Journal of Hydrogen Energy, 2014, 39, 4634-4646.	7.1	170
8	Hydrogen-induced cracking at grain and twin boundaries in an Feâ€“Mnâ€“C austenitic steel. Scripta Materialia, 2012, 66, 459-462.	5.2	168
9	Review of Hydrogen Embrittlement in Metals: Hydrogen Diffusion, Hydrogen Characterization, Hydrogen Embrittlement Mechanism and Prevention. Acta Metallurgica Sinica (English Letters), 2020, 33, 759-773.	2.9	142
10	The role of corrosion-resistant alloying elements in passivity. Corrosion Science, 2007, 49, 42-52.	6.6	137
11	Hydrogen embrittlement in a Feâ€“Mnâ€“C ternary twinning-induced plasticity steel. Corrosion Science, 2012, 54, 1-4.	6.6	134
12	Hydrogen degradation of a boron-bearing steel with 1050 and 1300MPa strength levels. Scripta Materialia, 2005, 52, 403-408.	5.2	130
13	Determination of the critical hydrogen concentration for delayed fracture of high strength steel by constant load test and numerical calculation. Corrosion Science, 2006, 48, 2189-2202.	6.6	129
14	Recent progress in microstructural hydrogen mapping in steels: Quantification, kinetic analysis, and multi-scale characterisation. Materials Science and Technology, 2017, 33, 1481-1496.	1.6	125
15	Evaluation of hydrogen entry into high strength steel under atmospheric corrosion. Corrosion Science, 2010, 52, 2758-2765.	6.6	115
16	Effect of hydrogen content on the embrittlement in a Feâ€“Mnâ€“C twinning-induced plasticity steel. Corrosion Science, 2012, 59, 277-281.	6.6	103
17	Global CO2 recyclingâ€”novel materials and prospect for prevention of global warming and abundant energy supply. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 267, 200-206.	5.6	99
18	Crosshead speed dependence of the notch tensile strength of a high strength steel in the presence of hydrogen. Scripta Materialia, 2005, 53, 713-718.	5.2	99

#	Article	IF	Citations
19	Anodically deposited manganese oxide and manganeseâ€“tungsten oxide electrodes for oxygen evolution from seawater. Electrochimica Acta, 1998, 43, 3303-3312.	5.2	96
20	Hydrogen-assisted quasi-cleavage fracture in a single crystalline type 316 austenitic stainless steel. Corrosion Science, 2013, 75, 345-353.	6.6	85
21	Hydrogen entry into Fe and high strength steels under simulated atmospheric corrosion. Electrochimica Acta, 2011, 56, 1799-1805.	5.2	77
22	Title is missing!. Journal of Applied Electrochemistry, 1999, 29, 769-775.	2.9	74
23	Evaluation of Delayed Fracture Characteristics of High Strength Steel based on CSRT Method. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2008, 94, 215-221.	0.4	70
24	Evaluation of susceptibility of high strength steels to delayed fracture by using cyclic corrosion test and slow strain rate test. Corrosion Science, 2010, 52, 1660-1667.	6.6	69
25	Experimental evidence for the critical size of heterogeneity areas for pitting corrosion of Cr-Zr alloys in 6 M HCl. Corrosion Science, 1998, 40, 1-17.	6.6	68
26	The effect of air exposure on the corrosion behavior of amorphous Fe-8Cr-Mo-13P-7C alloys in 1 M HCl. Corrosion Science, 1995, 37, 1289-1301.	6.6	67
27	Characterization of sputter-deposited Ni-Mo and Ni-W alloy electrocatalysts for hydrogen evolution in alkaline solution. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 226-228, 905-909.	5.6	67
28	Oxygen evolution on manganeseâ€“molybdenum oxide anodes in seawater electrolysis. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 267, 254-259.	5.6	65
29	Spatially and Kinetically Resolved Mapping of Hydrogen in a Twinning-Induced Plasticity Steel by Use of Scanning Kelvin Probe Force Microscopy. Journal of the Electrochemical Society, 2015, 162, C638-C647.	2.9	64
30	Compositional dependence of the CO2 methanation activity of Ni/ZrO2 catalysts prepared from amorphous NiZr alloy precursors. Applied Catalysis A: General, 1997, 163, 187-197.	4.3	61
31	Hydrogen Embrittlement of a 1500-MPa Tensile Strength Level Steel with an Ultrafine Elongated Grain Structure. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 1670-1687.	2.2	61
32	Recent progress in corrosion-resistant metastable alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 198, 1-10.	5.6	57
33	CO2 methanation catalysts prepared from amorphous Niâ€“Zrâ€“Sm and Niâ€“Zrâ€“misch metal alloy precursors. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 267, 220-226.	5.6	57
34	The corrosion behavior of sputter-deposited amorphous titanium-chromium alloys in 1 M and 6 M HCl solutions. Corrosion Science, 1993, 34, 975-987.	6.6	55
35	Materials for global carbon dioxide recycling. Corrosion Science, 2002, 44, 371-386.	6.6	55
36	Effects of severe plastic deformation on the corrosion behavior of aluminum alloys. Journal of Solid State Electrochemistry, 2009, 13, 277-282.	2.5	55

#	Article	IF	Citations
37	Advanced materials for global carbon dioxide recycling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 304-306, 88-96.	5.6	54
38	The corrosion behavior of sputter-deposited amorphous chromium-zirconium alloys in 6 M HCl solution. Corrosion Science, 1993, 34, 1817-1827.	6.6	53
39	The role of chromium and molybdenum in passivation of amorphous Fe-Cr-Mo-P-C alloys in deaerated 1 M HCl. Corrosion Science, 1996, 38, 2137-2151.	6.6	53
40	The passivation behavior of sputter-deposited W-Ta alloys in 12 M HCl. Corrosion Science, 1998, 40, 757-779.	6.6	53
41	The corrosion behavior of sputter-deposited Mo-Ti alloys in concentrated hydrochloric acid. Corrosion Science, 1996, 38, 1649-1667.	6.6	51
42	Hydrogen embrittlement property of a 1700-MPa-class ultrahigh-strength tempered martensitic steel. Science and Technology of Advanced Materials, 2010, 11, 025005.	6.1	51
43	Hydrogen-induced delayed fracture of a Feâ€“22Mnâ€“0.6C steel pre-strained at different strain rates. Scripta Materialia, 2012, 66, 947-950.	5.2	50
44	Effect of Î±-Al/Al3Ni microstructure on the corrosion behaviour of Alâ€“5.4wt% Ni alloy fabricated by equal-channel angular pressing. Corrosion Science, 2007, 49, 2962-2972.	6.6	47
45	The corrosion behavior of sputter-deposited amorphous Crî—¸Nb and Crî—¸Ta alloys in 12 M HCl solution. Corrosion Science, 1993, 34, 1947-1955.	6.6	46
46	Storage and Release of Soluble Hexavalent Chromium from Chromate Conversion Coatings on Al Alloys: Kinetics of Release. Journal of the Electrochemical Society, 2003, 150, B83.	2.9	46
47	Evaluation of Delayed Fracture Property of High Strength Bolt Steels. ISIJ International, 2012, 52, 307-315.	1.4	45
48	The corrosion behavior of sputter-deposited amorphous Mo-Zr alloys in 12 M HCl. Corrosion Science, 1995, 37, 307-320.	6.6	43
49	Studies of Evaluation of Hydrogen Embrittlement Property of High-Strength Steels with Consideration of the Effect of Atmospheric Corrosion. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 1290-1300.	2.2	43
50	Tensile mechanical properties and fracture behaviors of nickel-based superalloy 718 in the presence of hydrogen. International Journal of Hydrogen Energy, 2018, 43, 20118-20132.	7.1	42
51	An XPS study of passive films on corrosion-resistant Crî—¸Zr alloys prepared by sputter deposition. Corrosion Science, 1997, 39, 1365-1380.	6.6	41
52	Corrosion-resistant amorphous surface alloys. Corrosion Science, 1993, 35, 363-370.	6.6	40
53	Fracture criterion for hydrogen embrittlement of high strength steel. Materials Science and Technology, 2006, 22, 167-172.	1.6	40
54	The corrosion behavior of sputter-deposited amorphous Wî—¸Ti alloys in 6 M HCl solution. Corrosion Science, 1995, 37, 2071-2086.	6.6	39

#	Article	IF	Citations
55	The corrosion behavior of sputter-deposited Moî—‚Ta alloys in 12 M HCl solution. Corrosion Science, 1996, 38, 397-411.	6.6	39
56	An XPS study of the corrosion behavior of sputter-deposited amorphous Cr-Nb and Cr-Ta alloys in 12 M HCl solution. Corrosion Science, 1994, 36, 511-523.	6.6	38
57	The effect of heat treatment on the corrosion behavior of sputter-deposited aluminumâ€“chromium alloys. Corrosion Science, 1998, 41, 477-499.	6.6	38
58	Microstructural and crystallographic study of hydrogen-assisted cracking in high strength PSB1080 steel. International Journal of Hydrogen Energy, 2018, 43, 17898-17911.	7.1	38
59	Electrochemical and xps studies of the corrosion behavior of sputter-deposited amorphous W-Zr alloys in 6 and 12 M HCl solutions. Corrosion Science, 1997, 39, 355-375.	6.6	37
60	Room-temperature blue brittleness of Fe-Mn-C austenitic steels. Scripta Materialia, 2017, 141, 20-23.	5.2	37
61	The Influence of Dichromate Ions on Aluminum Dissolution Kinetics in Artificial Crevice Electrode Cells. Journal of the Electrochemical Society, 1999, 146, 4095-4100.	2.9	35
62	Hydrogen Embrittlement in Al-added Twinning-induced Plasticity Steels Evaluated by Tensile Tests during Hydrogen Charging. ISIJ International, 2012, 52, 2283-2287.	1.4	35
63	The corrosion behavior of sputter-deposited Mo-Nb alloys in 12 M HCl solution. Corrosion Science, 1996, 38, 1731-1750.	6.6	34
64	Effects of Additional Elements on Electrocatalytic Properties of Thermally Decomposed Manganese Oxide Electrodes for Oxygen Evolution from Seawater. Materials Transactions, JIM, 1997, 38, 899-905.	0.9	34
65	Evaluation of delayed fracture property of outdoor-exposed high strength AISI 4135 steels. Corrosion Science, 2010, 52, 3198-3204.	6.6	34
66	Martensitic transformation-induced hydrogen desorption characterized by utilizing cryogenic thermal desorption spectroscopy during cooling. Scripta Materialia, 2016, 122, 50-53.	5.2	34
67	The corrosion behavior of sputter-deposited Cr-Mo alloys in 12 M HCl solution. Corrosion Science, 1995, 37, 1843-1860.	6.6	33
68	Electrochemical and XPS studies of the corrosion behavior of sputter-deposited W-Nb alloys in concentrated hydrochloric acid solutions. Corrosion Science, 1998, 40, 19-42.	6.6	32
69	Corrosion behaviour of sputter-deposited Mgâ€“Zr alloys in a borate buffer solution. Corrosion Science, 2011, 53, 2988-2993.	6.6	32
70	Comparison of Constant Load, SSRT and CSRT Methods for Hydrogen Embrittlement Evaluation Using Round Bar Specimens of High Strength Steels. ISIJ International, 2016, 56, 1268-1275.	1.4	32
71	Effect of Strain Rate on the Hydrogen Embrittlement Property of Ultra High-strength Low Alloy TRIP-aided Steel. ISIJ International, 2018, 58, 751-759.	1.4	32
72	Surface activation of manganese oxide electrode for oxygen evolution from seawater. Journal of Applied Electrochemistry, 1997, 27, 1362-1368.	2.9	31

#	Article	IF	Citations
73	Electrochemical and XPS studies on the passivation behavior of sputter-deposited W-Cr Alloys in 12 M HCl solution. Corrosion Science, 1998, 40, 155-175.	6.6	31
74	The corrosion behavior of sputter-deposited amorphous Cr-Ni-Mo alloys in 12 M HCl. Corrosion Science, 1994, 36, 1395-1410.	6.6	30
75	Constant-load delayed fracture test of atmospherically corroded high strength steels. Applied Surface Science, 2011, 257, 8275-8281.	6.1	30
76	Effect of heat treatment on hydrogen-assisted fracture behavior of PH13-8Mo steel. Corrosion Science, 2017, 128, 198-212.	6.6	30
77	Effects of Mn Content and Grain Size on Hydrogen Embrittlement Susceptibility of Face-Centered Cubic High-Entropy Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 5612-5616.	2.2	30
78	The corrosion behavior of sputter-deposited amorphous Alî—¸Crî—¸Mo alloys in 1 M HCl. Corrosion Science, 1996, 38, 279-292.	6.6	29
79	The corrosion behaviour of sputter-deposited amorphous Mn-Ti alloys in 0.5 M NaCl solutions. Corrosion Science, 1997, 39, 305-320.	6.6	29
80	Electrochemical hydrogen permeation tests under galvanostatic hydrogen charging conditions conventionally used for hydrogen embrittlement study. Corrosion Reviews, 2016, 34, 103-112.	2.0	29
81	The influences of Mo addition and air exposure on the corrosion behavior of amorphous Feî—¸8Crî—¸13Pî—¸7C alloy in de-aerated 1 M HCl. Corrosion Science, 1996, 38, 349-365.	6.6	27
82	Spontaneously passivated films on sputter-deposited Cr-Ti alloys in 6 M HCl solution. Corrosion Science, 1997, 39, 935-948.	6.6	27
83	The corrosion behavior of amorphous and crystalline Ni-10Ta-20P alloys in 12 M HCl. Corrosion Science, 1996, 38, 1269-1279.	6.6	26
84	Hydrogen embrittlement of high strength steam turbine last stage blade steels: Comparison between PH17-4 steel and PH13-8Mo steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 742, 353-363.	5.6	26
85	Hydrogen-assisted damage in austenite/martensite dual-phase steel. Philosophical Magazine Letters, 2016, 96, 9-18.	1.2	25
86	Effects of Static and Dynamic Strain Aging on Hydrogen Embrittlement in TWIP Steels Containing Al. ISIJ International, 2013, 53, 1268-1274.	1.4	24
87	Hydrogen embrittlement behavior of Inconel 718 alloy at room temperature. Journal of Materials Science and Technology, 2019, 35, 499-502.	10.7	24
88	Effect of hydrogen charging time on hydrogen blister and hydrogen-induced cracking of pure iron. Corrosion Science, 2021, 181, 109200.	6.6	24
89	The degradation of the corrosion resistance of sputter-deposited chromiumâ€“titanium alloys by nanoscale heterogeneity. Corrosion Science, 1999, 41, 1871-1890.	6.6	23
90	Comparison of Constant Load, SSRT and CSRT Methods for Hydrogen Embrittlement Evaluation Using Round Bar Specimens of High Strength Steels. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2014, 100, 1298-1305.	0.4	23

#	Article	IF	Citations
91	Transformation-assisted hydrogen desorption during deformation in steels: Examples of Î±â€²- and Îµ-Martensite. International Journal of Hydrogen Energy, 2019, 44, 30472-30477.	7.1	23
92	The corrosion behaviour of sputter-deposited amorphous Niî—¸Ti alloys in 1 M HCl. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 181-182, 1128-1132.	5.6	21
93	The effects of alloying elements on the passivity of sputter-deposited amorphous Al-Cr-Mo alloys in 1M HCl. Corrosion Science, 1996, 38, 1281-1294.	6.6	21
94	A study of the structure of a passive film using angle-resolved X-ray photo-electron spectroscopy. Corrosion Science, 1996, 38, 1127-1140.	6.6	21
95	The corrosion behavior of sputter-deposited amorphous Feâ€“Crâ€“Niâ€“Ta alloys in 12 M HCl. Corrosion Science, 1999, 41, 1849-1869.	6.6	21
96	Hydrogen Visualization in Steels Using Ag Decoration Method. Materials Transactions, 2015, 56, 793-797.	1.2	21
97	Effects of Alloying Elements Addition on Delayed Fracture Properties of Ultra High-Strength TRIP-Aided Martensitic Steels. Metals, 2020, 10, 6.	2.3	21
98	Effects of residual stress and plastic strain on hydrogen embrittlement of a stretch-formed TRIP-aided martensitic steel sheet. Corrosion Science, 2020, 177, 108957.	6.6	21
99	Warm tempforming effect on the hydrogen embrittlement of 1.8-GPa-class ultra-high-strength low-alloy steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 703, 503-512.	5.6	20
100	Interfacial hydrogen localization in austenite/martensite dualâ€phase steel visualized through optimized silver decoration and scanning Kelvin probe force microscopy. Materials and Corrosion - Werkstoffe Und Korrosion, 2017, 68, 306-310.	1.5	20
101	Strain rate and hydrogen effects on crack growth from a notch in a Fe-high-Mn steel containing 1.1Âwt% solute carbon. International Journal of Hydrogen Energy, 2020, 45, 1125-1139.	7.1	19
102	Distribution of Hydrogen Occluded in Bolts Tightened beyond the Yield Strength and Exposed at a Seashore Site. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2002, 88, 849-856.	0.4	19
103	Total Synthesis and Absolute Configuration of (-)-Sedacryptine. Synlett, 1996, 1996, 100-102.	1.8	18
104	The roles of tantalum and phosphorus in the corrosion behavior of Ni-Ta-P alloys in 12 M HCl. Corrosion Science, 1997, 39, 321-332.	6.6	18
105	An XPS study of passive films on sputter-deposited Cr-Nb alloys in 12 M HCl solution. Corrosion Science, 1998, 40, 821-838.	6.6	18
106	High-concentration carbon assists plasticity-driven hydrogen embrittlement in a Fe-high Mn steel with a relatively high stacking fault energy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 717, 78-84.	5.6	18
107	Role of mill scale on corrosion behavior of steel rebars in mortar. Corrosion Science, 2020, 177, 108995.	6.6	18
108	Hydrogen embrittlement resistance of pre-strained ultra-high-strength low alloy TRIP-aided steel. International Journal of Fracture, 2020, 224, 253-260.	2.2	18

#	Article	IF	Citations
109	Hydrogen Entry Behavior into Iron and Steel under Atmospheric Corrosion. ISIJ International, 2013, 53, 1062-1069.	1.4	18
110	The corrosion behaviour of sputter-deposited amorphous Mn-Ta alloys in 0.5 M NaCl solution. Corrosion Science, 1997, 39, 1965-1979.	6.6	17
111	XPS and electrochemical studies on the corrosion behaviour of sputter-deposited amorphous Mn-Nb alloys in a neutral chloride solution. Corrosion Science, 1998, 40, 1513-1531.	6.6	17
112	Effects of Oxygen Pressure and Chloride Ion Concentration on Corrosion of Iron in Mortar Exposed to Pressurized Humid Oxygen Gas. Journal of the Electrochemical Society, 2018, 165, C582-C589.	2.9	17
113	Pre-strain effects on critical stress and hydrogen content for hydrogen-induced quasi-cleavage fracture in a TRIP-aided bainitic ferrite steel: Martensitic transformation, matrix damage, and strain aging. International Journal of Hydrogen Energy, 2020, 45, 27920-27928.	7.1	17
114	Effect of austempering treatment on the microstructure and mechanical properties of 0.4Câ€“1.5Si-1.5Mn TRIP-aided bainitic ferrite steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 819, 141479.	5.6	17
115	Electrochemical and XPS studies of the effects of alloying elements on the corrosion behavior of amorphous Feî—¸Crî—¸Metalloid alloys in 9 M H2SO4. Corrosion Science, 1993, 34, 1829-1839.	6.6	16
116	The corrosion behavior of amorphous Fe-8Cr-13P-7C and Fe-8Cr-20P alloys in concentrated sulfuric acid. Corrosion Science, 1994, 36, 1537-1550.	6.6	16
117	The effect of phosphorus addition on the corrosion behavior of amorphous Ni-30Ta-P alloys in 12 M HCl. Corrosion Science, 1995, 37, 321-330.	6.6	16
118	Global CO2 Recycling. Zairyo To Kankyo/ Corrosion Engineering, 1996, 45, 614-620.	0.2	16
119	Corrosion-resistant amorphous aluminum alloys and structure of passive films. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 226-228, 920-924.	5.6	16
120	Effects of nanocrystalline heterogeneity on the corrosion behavior of sputter-deposited chromiumâ€“niobium alloys. Corrosion Science, 2000, 42, 361-382.	6.6	16
121	Interstitial Carbon Enhanced Corrosion Resistance of Fe-33Mn-xC Austenitic Steels: Inhibition of Anodic Dissolution. Journal of the Electrochemical Society, 2018, 165, C19-C26.	2.9	16
122	Hydrogen embrittlement and associated surface crack growth in fine-grained equiatomic CoCrFeMnNi high-entropy alloys with different annealing temperatures evaluated by tensile testing under in situ hydrogen charging. International Journal of Hydrogen Energy, 2021, 46, 33028-33038.	7.1	16
123	The effect of phosphorus addition on the corrosion behavior of amorphous Fe-8Cr-P alloys in 9M H2SO4. Corrosion Science, 1995, 37, 709-722.	6.6	15
124	Mn–W Oxide Anodes Prepared by Thermal Decomposition for Oxygen Evolution in Seawater Electrolysis. Materials Transactions, JIM, 1998, 39, 308-313.	0.9	15
125	The effect of magnesium on the corrosion behavior of sputter-deposited amorphous Alî—¸Mgî—¸Ti ternary alloys in a neutral chloride solution. Corrosion Science, 1993, 34, 27-40.	6.6	14
126	Change in the surface composition of amorphous Feî—¸Crî—¸Moî—¸Pî—¸C alloys during air exposure. Corrosion Science, 1995, 37, 331-341.	6.6	14

#	Article	IF	Citations
127	High Temperature Sulfidation and Oxidation Behavior of Sputter-Deposited Al-refractory Metal Alloys. Materials Transactions, JIM, 1996, 37, 379-382.	0.9	14
128	Electrochemical and XPS studies of the passivation behavior of sputter-deposited Crâ€“Ta alloys in 12 M HCl. Corrosion Science, 1998, 40, 1587-1604.	6.6	14
129	Characterization of CO2 methanation catalysts prepared from amorphous Ni-Zr and NI-Zr-rare earth element alloys. Studies in Surface Science and Catalysis, 1998, 114, 451-454.	1.5	14
130	Hydrogen mapping across a crevice: Effect of applied potential. Scripta Materialia, 2005, 53, 1219-1223.	5.2	14
131	Fretting fatigue behaviour of Ni-free high-nitrogen stainless steel in a simulated body fluid. Science and Technology of Advanced Materials, 2013, 14, 025002.	6.1	14
132	Quantitative Evaluation of Hydrogen Effects on Evolutions of Deformation-Induced Îµ-Martensite and Damage in a High-Mn Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 6184-6194.	2.2	14
133	An angle-resolved xps study of the in-depth structure of passivated amorphous aluminum alloys. Corrosion Science, 1997, 39, 1351-1364.	6.6	13
134	Strain rate sensitivity of hydrogen-assisted Îµ-martensitic transformation and associated hydrogen embrittlement in high-Mn steel. International Journal of Hydrogen Energy, 2021, 46, 27221-27233.	7.1	13
135	Hydrogen Mapping Across Crevices. Electrochemical and Solid-State Letters, 2005, 8, B30.	2.2	12
136	Detection of hydrogen effusion before, during, and after martensitic transformation: Example of multiphase transformation-induced plasticity steel. International Journal of Hydrogen Energy, 2019, 44, 26028-26035.	7.1	12
137	Lowering Strain Rate Simultaneously Enhances Carbon- and Hydrogen-Induced Mechanical Degradation in an Fe-33Mn-1.1C Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 1137-1141.	2.2	12
138	Application of an iridium complex for detecting hydrogen permeation through pure iron. International Journal of Hydrogen Energy, 2020, 45, 25580-25586.	7.1	12
139	Activation energy of hydrogen desorption from high-performance titanium oxide carrier-selective contacts with silicon oxide interlayers. Current Applied Physics, 2021, 21, 36-42.	2.4	12
140	The effect of phosphorus on the passivation behavior of Ni-10Ta-P alloys in 12 M HCl. Corrosion Science, 1995, 37, 1313-1324.	6.6	11
141	The effect of molybdenum on the stability of passive films formed on amorphous Fe-Cr-Mo-P-C alloys by potentiostatic polarization in deaerated 1 M HCl. Corrosion Science, 1997, 39, 589-603.	6.6	11
142	The effect of alloying elements on the corrosion behaviour of sputter-deposited amorphous Mnâ€“Taâ€“Cr alloys in 1 M H2SO4. Corrosion Science, 1998, 40, 1491-1512.	6.6	11
143	Electrochemical and XPS studies of the corrosion behavior of sputter-deposited amorphous Feâ€“Crâ€“Niâ€“Nb alloys in 6 M HCl. Corrosion Science, 1999, 41, 1095-1118.	6.6	11
144	Discrete electrochemical transients of aluminium alloys generated by slurry jet impingement. Journal Physics D: Applied Physics, 2006, 39, 3157-3164.	2.8	11

#	Article	IF	Citations
145	Nitrogen monoxide decomposition catalysts prepared from amorphous Ni-valve metal-Pd alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 181-182, 1123-1127.	5.6	10
146	Decomposition of nitrogen monoxide over NiTa2O6-supported palladium catalysts prepared from amorphous alloy precursors. Applied Catalysis B: Environmental, 1996, 9, 93-106.	20.2	10
147	Electrochemical Hydrogen Permeation Tests under Conventional Potentiostatic Hydrogen Charging Conditions Conventionally Used for Hydrogen Embrittlement Study. ECS Transactions, 2017, 75, 23-31.	0.5	10
148	An Evaluation Method for Hydrogen Embrittlement of High Strength Steel Sheets Using U-bend Specimens. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2019, 105, 927-934.	0.4	10
149	Hyperbaric-Oxygen Accelerated Corrosion Test for Iron in Cement Paste and Mortar. Materials Transactions, 2018, 59, 927-934.	1.2	10
150	Preface to the Special Issue on â€œCommon Bases for Hydrogen Embrittlement Studiesâ€• ISIJ International, 2012, 52, 167.	1.4	10
151	The influence of concentration of hydrochloric acid solutions on the passivation behavior of sputter-deposited tungsten rich Wâ€“Nb alloys. Corrosion Science, 1998, 40, 1897-1914.	6.6	9
152	Factors Affecting Static Strain Aging under Stress at Room Temperature in a Feâ€“Mnâ€“C Twinning-induced Plasticity Steel. ISIJ International, 2013, 53, 1089-1096.	1.4	9
153	Electrochemical Hydrogen Permeation Test under Controlled Temperature and Humidity after Outdoor Exposure at Beijing, Chongqing and Okinawa. ISIJ International, 2016, 56, 436-443.	1.4	9
154	Depassivation and Repassivation of Titanium under Particle Impingements. ECS Transactions, 2006, 1, 437-446.	0.5	8
155	The Use of Renewable Energy in the Form of Methane Via Electrolytic Hydrogen Generation / Zastosowanie Odnawialnej Energii W Formie Metanu Na Drodze Elektrolitycznej Produkcji Wodoru. Archives of Metallurgy and Materials, 2013, 58, 231-239.	0.6	8
156	Hydrogen Visualization in Steels Using Ag Decoration Method. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2013, 77, 622-626.	0.4	8
157	Hydrogen embrittlement properties of nitrogen added ultra-high-strength TRIP-aided martensitic steels evaluated by using conventional strain rate technique. Procedia Manufacturing, 2018, 15, 1581-1587.	1.9	8
158	Multiple damage mechanisms facilitated by planar dislocation glide in a commercial-grade precipitation-strengthened Feâ€“Niâ€“Cr-based steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 782, 139250.	5.6	8
159	Hydrogen Entry in Crevice Region: Evaluation by Hydrogen Permeation Technique. ISIJ International, 2006, 46, 1081-1085.	1.4	8
160	Preparation of Protective Multilayer SiO2 and Al2O3 Coatings on Austenitic Stainless Steel by Sol-Gel Method. Zairyo To Kankyo/ Corrosion Engineering, 1994, 43, 654-659.	0.2	7
161	Amorphous Fe-valve metal-Pt group metal alloy catalysts for methanation of CO2. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 181-182, 1133-1136.	5.6	7
162	Hydrogen Thermal Desorption Analysis for the Studies of Hydrogen Embrittlement of High Strength Steels. Journal of the Vacuum Society of Japan, 2014, 57, 207-213.	0.3	7

#	Article	IF	Citations
163	Hydrogen-assisted damage evolution in nitrogen-doped duplex stainless steel. International Journal of Hydrogen Energy, 2021, 46, 2716-2728.	7.1	7
164	Availability of Opal Photonic Crystal Films for Visualizing Heterogeneous Strain Evolution in Steels: Example of LÃ¼ders Deformation. ISIJ International, 2020, 60, 2604-2608.	1.4	7
165	Amorphous alloy catalysts for decomposition of CCl2F2 by hydrolysis. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 181-182, 1091-1094.	5.6	6
166	The influence of pre-immersion on the potentiostatic polarization behavior of amorphous Fe-Cr-Mo-P-C alloys in de-aerated 1 M HCl. Corrosion Science, 1996, 38, 1495-1511.	6.6	6
167	The effect of phosphorus addition on the corrosion behavior of ARC-MELTED Niî—¸10Taî—¸P alloys in 12 M HCl. Corrosion Science, 1996, 38, 469-485.	6.6	6
168	The sulfidation and oxidation behavior of sputter-deposited Cr-refractory metal alloys at high temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 226-228, 910-914.	5.6	6
169	Passivity and its breakdown on sputter-deposited amorphous Mn-Zr alloys in neutral chloride solutions. Corrosion Science, 1998, 40, 235-250.	6.6	6
170	Corrosion-resistant Mnî—¸Zrî—¸Cr alloys in chloride-containing media. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 267, 285-293.	5.6	6
171	Effect of Hydrogen on the Fracture Behavior of High-Strength Cr-Mo Steel. Materials Science Forum, 2006, 512, 55-60.	0.3	6
172	Effects of Hydrogen on Tensile Properties at Slow Strain Rate of Ultra High-Strength TRIP-aided Bainitic Ferrite Steels. Procedia Engineering, 2017, 207, 1868-1873.	1.2	6
173	Hydrogen Enhances Shape Memory Effect of a Ferrous Face-Centered Cubic Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 4439-4441.	2.2	6
174	Decomposition of Nitrogen Monoxide over Amorphous Co–65Zr Alloys Containing Platinum Group Elements. Materials Transactions, JIM, 1993, 34, 725-731.	0.9	5
175	Highly corrosion-resistant amorphous Crî—¸Niî—¸P alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 181-182, 1114-1118.	5.6	5
176	The effect of microcrystallites in the amorphous matrix on the corrosion behavior of amorphous Fe-8Cr-P alloys. Corrosion Science, 1995, 37, 1411-1422.	6.6	5
177	The Corrosion Behavior of Ni–Ta–5P Alloys in Concentrated Hydrochloric Acid. Materials Transactions, JIM, 1996, 37, 383-388.	0.9	5
178	Hydrogen Evolution Characteristics of Sputter-Deposited Co–Mo, Co–Al and Co–Mo–Al Alloy Electrodes in NaOH Solution. Materials Transactions, JIM, 1998, 39, 1017-1023.	0.9	5
179	Hydrogen Embrittlement Behavior of Pure Ni and Ni-20Cr Alloy with Different Grain Sizes. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2021, 85, 49-58.	0.4	5
180	Effects of Static and Dynamic Strain Aging on Hydrogen Embrittlement in TWIP Steels Containing Al. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2014, 100, 1132-1139.	0.4	5

#	Article	IF	Citations
181	Hydrogen Entry Behavior into Iron and Steels under Atmospheric Corrosion. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2013, 99, 651-658.	0.4	5
182	Realâ€Time Visualization of Hydrogen Distribution in Metals Using Polyaniline: An Ultrasensitive Hydrogenochromic Sensor. Advanced Materials Interfaces, 2022, 9, .	3.7	5
183	Hydrogen-accelerated fatigue crack growth of equiatomic Feâ€“Crâ€“Niâ€“Mnâ€“Co high-entropy alloy evaluated by compact tension testing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 848, 143394.	5.6	5
184	Angle-resolved XPS for determination of diffusion coefficients and mobilities of cations in thin passive films. Surface and Interface Analysis, 2000, 30, 106-111.	1.8	4
185	Effects of hydrogen content that alters damage evolution mechanisms in SUH 660 precipitation-strengthened Feâ€“Crâ€“Ni steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 791, 139750.	5.6	4
186	Delayed Fracture of High Strength Steels under Atmospheric Corrosion. Zairyo To Kankyo/ Corrosion Engineering, 2011, 60, 184-189.	0.2	4
187	Effect of Carbon Content on V-bending in High-Strength TRIP-aided Dual-Phase Steel Sheets with Polygonal Ferrite Matrix. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2020, 106, 934-943.	0.4	4
188	Preparation of Protective Alumina Coating on Austenitic Stainless Steel by Sol-Gel Method. Zairyo To Kankyo/ Corrosion Engineering, 1993, 42, 158-165.	0.2	3
189	Effect of Strain Rate on the Hydrogen Embrittlement Property of Ultra High-strength Low-alloy TRIP-aided Steel. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2019, 105, 443-451.	0.4	3
190	Effect of Carbon Content on V-Bending in High-Strength TRIP-Aided Dual-Phase Steel Sheets with Polygonal Ferrite Matrix. ISIJ International, 2021, 61, 608-616.	1.4	3
191	Hydrogen Embrittlement of Metallic Materials and Recent Subjects. Materia Japan, 2017, 56, 230-233.	0.1	3
192	Amorphous alloy electrodes for anodic oxidation of sulfite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 181-182, 1081-1084.	5.6	2
193	Effect of phosphorus on the passivation behavior of amorphous Feî—¸8Crî—¸13Pî—¸7C alloy in 9M H2SO4 solution. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 181-182, 1119-1122.	5.6	2
194	The Corrosion Behavior of Ni-Cr-Mo Ternary Alloys in Hot Concentrated Sulfuric Acids with Active Carbon (Part 1). Zairyo To Kankyo/ Corrosion Engineering, 1997, 46, 643-650.	0.2	2
195	NO decomposition catalysts prepared from amorphous NiTaPd alloys. Applied Catalysis B: Environmental, 1997, 11, 243-255.	20.2	2
196	Factors Affecting Static Strain Aging Under Stress at Room Temperature in a Fe-Mn-C Twinning-Induced Plasticity Steel. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2014, 100, 1123-1131.	0.4	2
197	Hydrogen Entry into an AISI 4135 High Strength Steel in Tribocorrosion Environment. ECS Transactions, 2017, 75, 33-41.	0.5	2
198	Hyperbaric-Oxygen Accelerated Corrosion Test of Iron in Cement Paste and Mortar. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2018, 82, 1-7.	0.4	2

#	Article	IF	Citations
199	Effects of Matrix Structure and Nitrogen Content on Fatigue Properties of Ultrahigh-Strength Low Alloy TRIP-Aided Steels. ISIJ International, 2021, 61, 591-598.	1.4	2
200	Effects of Si and Mn Contents on V-bending in High Strength TRIP-aided Dual-Phase Steel Sheets with Polygonal Ferrite Matrix. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2021, 107, 154-164.	0.4	2
201	Effect of Hydrogen on Spot-Welded Tensile Properties in Automotive Ultrahigh-Strength TRIP-Aided Martensitic Steel Sheet. ISIJ International, 2021, 61, 2644-2653.	1.4	2
202	XPS Study of Ni-Mo-B Amorphous Ultra-fine Particles Prepared by Chemical Reduction. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1996, 60, 79-83.	0.4	1
203	The sulfidation and oxidation behavior of sputter-deposited Alî—¸Nbî—¸Mo alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 267, 277-284.	5.6	1
204	XPS Determination of Diffusion Coefficients of Cations in Thin Passive Films on Alloys. Solid State Phenomena, 2000, 72, 79-84.	0.3	1
205	Acetate and Chloride Effects on Hydrogen Production across Crevices. Materials Science Forum, 2006, 512, 97-102.	0.3	1
206	Roles of Hydrogen Content and Pre-strain on Damage Evolution of TRIP-aided Bainitic Ferrite Steel. ISIJ International, 2021, 61, 1309-1314.	1.4	1
207	Depressurization-induced diffusionless transformation in pure iron hydrogenated under several gigapascals. Materials Letters: X, 2021, 11, 100078.	0.7	1
208	Electrochemical Hydrogen Permeation Tests Under Potentiostatic Hydrogen Charging Conditions Conventionally Used for Hydrogen Embrittlement Study. ECS Meeting Abstracts, 2016, , .	0.0	1
209	Effects of Thermomechanical Processing on Hydrogen Embrittlement Properties of UltraHigh-Strength TRIP-Aided Bainitic Ferrite Steels. Metals, 2022, 12, 269.	2.3	1
210	Effect of cathodic reduction on catalytic activity of amorphous alloy electrodes for electrooxidation of sulfite. Journal of Applied Electrochemistry, 1995, 25, 953.	2.9	0
211	The Microcomposite Structure of Catalysts Prepared by Oxidation of Amorphous Ni–Ta–Pd Alloys. Materials Transactions, JIM, 1997, 38, 123-132.	0.9	0
212	Application of Sputter Deposition Technique to the Preparation of Amorphous Alloy-Derived Catalysts for NO Decomposition. Materials Transactions, JIM, 1997, 38, 643-649.	0.9	0
213	The Corrosion Behavior of Ni-Cr-Mo Ternary Alloys in Hot Concentrated Sulfuric Acids with Active Carbon (Part 2). Zairyo To Kankyo/ Corrosion Engineering, 1997, 46, 702-708.	0.2	0
214	Hydrogen Embrittlement in Al-Added Twinning-Induced Plasticity Steels Evaluated by Tensile Tests during Hydrogen Charging. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2014, 100, 662-667.	0.4	0
215	Corrections of the text and the figure in the paper â€œEffect of Strain Rate on the Hydrogen Embrittlement Property of Ultra High-strength Low Alloy TRIP-aided Steelâ€•[ISIJ International, Vol. 58 (2018), No. 4, pp. 751â€“759]. ISIJ International, 2018, 58, 1748-1749.	1.4	0
216	Effect of Hydrogen on Spot Welded Tensile Properties in Automotive Ultrahigh Strength TRIP-aided Martensitic Steel Sheet. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2021, 107, 175-184.	0.4	0

#	Article	IF	Citations
217	Potential Effects of Short-Range Order on Hydrogen Embrittlement of Stable Austenitic Steelsâ€"A Review. Advanced Structured Materials, 2021, , 1-18.	0.5	0
218	V-bendability of Ultrahigh Strength Low Alloy TRIP-aided Steel Sheets with Bainitic Ferrite Matrix. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2021, 107, 165-174.	0.4	0
219	Hydrogen Entry into an AISI 4135 High Strength Steel in Tribocorrosion Environment. ECS Meeting Abstracts, 2016, , .	0.0	0
220	Acceleration of Fe Corrosion in Cement Paste and Mortar By Enhancing Oxygen Supply. ECS Meeting Abstracts, 2017, , .	0.0	0
221	Electrochemical Hydrogen Permeation Test under Controlled Temperature and Humidity after Outdoor Exposure at Beijing, Chongqing and Okinawa. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2017, 103, 93-100.	0.4	0
222	Effect of Interstitial Carbon on Anodic Polarization Behavior of Fe-33Mn-C Austenitic Steels. ECS Meeting Abstracts, 2018, , .	0.0	0
223	Size and distribution of micropores and voids in 5052 aluminum alloys during tensile deformation. Keikinzoku/Journal of Japan Institute of Light Metals, 2018, 68, 630-634.	0.4	0
224	Corrosion Behavior of Reinforcing Steel with Mill Scale in Concrete. ECS Meeting Abstracts, 2019, , .	0.0	0
225	Decomposition of nitrogen monoxide over NiTa2O6-supported palladium catalysts prepared from amorphous alloy precursors. Applied Catalysis B: Environmental, 1996, 9, 93-106.	20.2	0