

Nagahiro Hoshi

List of Publications by Year in descending order

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97
papers

3,450
citations

159585

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144013

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97
all docs

97
docs citations

97
times ranked

3509
citing authors

#	ARTICLE	IF	CITATIONS
1	Selective Formation of C2 Compounds from Electrochemical Reduction of CO2 at a Series of Copper Single Crystal Electrodes. <i>Journal of Physical Chemistry B</i> , 2002, 106, 15-17.	2.6	542
2	Structural Effects of Electrochemical Oxidation of Formic Acid on Single Crystal Electrodes of Palladium. <i>Journal of Physical Chemistry B</i> , 2006, 110, 12480-12484.	2.6	262
3	Active Sites for the Oxygen Reduction Reaction on the Low and High Index Planes of Palladium. <i>Journal of Physical Chemistry C</i> , 2009, 113, 12625-12628.	3.1	184
4	Electrochemical reduction of CO2 at copper single crystal Cu(S)-[n(111) \bar{A} -(111)] and Cu(S)-[n(110) \bar{A} -(100)] electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2002, 533, 135-143.	3.8	174
5	Quantitating the Lattice Strain Dependence of Monolayer Pt Shell Activity toward Oxygen Reduction. <i>Journal of the American Chemical Society</i> , 2013, 135, 5938-5941.	13.7	112
6	Voltammograms of the single-crystal electrodes of palladium in aqueous sulfuric acid electrolyte: Pd(S)-[n(111) \bar{A} -(111)] and Pd(S)-[n(100) \bar{A} -(111)]. <i>Journal of Electroanalytical Chemistry</i> , 2000, 485, 55-60.	3.8	105
7	Active sites for the oxygen reduction reaction on the high index planes of Pt. <i>Electrochimica Acta</i> , 2013, 112, 899-904.	5.2	93
8	Effect of hydrophobic cations on the oxygen reduction reaction on single-crystal platinum electrodes. <i>Nature Communications</i> , 2018, 9, 4378.	12.8	87
9	Outer Helmholtz Plane of the Electrical Double Layer Formed at the Solid Electrode-Liquid Interface. <i>ChemPhysChem</i> , 2011, 12, 1430-1434.	2.1	85
10	Voltammograms of stepped and kinked stepped surfaces of palladium: Pd(S)-[n(111) \bar{A} -(100)] and Pd(S)-[n(100) \bar{A} -(110)]. <i>Journal of Electroanalytical Chemistry</i> , 2002, 521, 155-160.	3.8	80
11	Structural effects on the activity for the oxygen reduction reaction on n(1 1 1) \hat{A} “(1 0 0) series of Pt: correlation with the oxide film formation. <i>Electrochimica Acta</i> , 2012, 82, 512-516.	5.2	79
12	Electrochemical reduction of carbon dioxide at a series of platinum single crystal electrodes. <i>Electrochimica Acta</i> , 2000, 45, 4263-4270.	5.2	66
13	Infrared Reflection Absorption Spectroscopy of OH Adsorption on the Low Index Planes of Pt. <i>Electrocatalysis</i> , 2015, 6, 295-299.	3.0	65
14	Recent Progress in Electrochemical Surface Science with Atomic and Molecular Levels. <i>Electrochemistry</i> , 2009, 77, 2-20.	1.4	64
15	Structural effects on the oxidation of formic acid on the high index planes of palladium. <i>Electrochemistry Communications</i> , 2007, 9, 279-282.	4.7	55
16	Effect of Non-Specifically Adsorbed Ions on the Surface Oxidation of Pt(111). <i>ChemPhysChem</i> , 2013, 14, 2426-2431.	2.1	51
17	Infrared Reflection Absorption Spectroscopy of Sulfuric Acid Anion Adsorbed on Stepped Surfaces of Platinum Single-Crystal Electrodes. <i>Journal of Physical Chemistry B</i> , 2002, 106, 1985-1990.	2.6	48
18	Infrared Reflection Absorption Spectroscopy of the Sulfuric Acid Anion on Low and High Index Planes of Palladium. <i>Journal of Physical Chemistry B</i> , 2002, 106, 9107-9113.	2.6	41

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19	Infrared spectroscopy of adsorbed OH on n(111) and n(111) series of Pt electrode. Journal of Electroanalytical Chemistry, 2017, 800, 162-166.	3.8	40
20	Step density dependence of CO ₂ reduction rate on Pt(S)-[n(111) (111)] single crystal electrodes. Electrochimica Acta, 1996, 41, 1647-1653.	5.2	39
21	Significant difference of the reduction rates of carbon dioxide between Pt(111) and Pt(110) single crystal electrodes. Electrochimica Acta, 1995, 40, 883-887.	5.2	38
22	CO ₂ Reduction on Rh single crystal electrodes and the structural effect. Journal of Electroanalytical Chemistry, 1995, 395, 309-312.	3.8	38
23	Significant enhancement of the electrochemical reduction of CO ₂ at the kink sites on Pt(S)-[n(110) (100)] and Pt(S)-[n(100) (110)]. Journal of Electroanalytical Chemistry, 1999, 467, 67-73.	3.8	38
24	Structural effects on voltammograms of the low index planes of palladium and Pd(S)-[n(100) (111)] surfaces in alkaline solution. Journal of Electroanalytical Chemistry, 2008, 624, 134-138.	3.8	37
25	Structural effects on the enhancement of ORR activity on Pt single-crystal electrodes modified with alkylamines. Electrochemistry Communications, 2018, 87, 5-8.	4.7	37
26	Structural effects on the oxygen reduction reaction on n(111) series of Pd. Journal of Electroanalytical Chemistry, 2011, 657, 123-127.	3.8	36
27	Catalytic Activity of CO ₂ Reduction on Pt Single-Crystal Electrodes: Pt(S)-[n(111) (111)], Pt(S)-[n(111) (100)], and Pt(S)-[n(100) (111)]. Journal of Physical Chemistry B, 1997, 101, 8520-8524.	2.6	34
28	In situ observation of Pt oxides on the low index planes of Pt using surface enhanced Raman spectroscopy. Physical Chemistry Chemical Physics, 2017, 19, 27570-27579.	2.8	33
29	Oxygen reduction reaction on the low index planes of palladium electrodes modified with a monolayer of platinum film. Electrochemistry Communications, 2009, 11, 2282-2284.	4.7	31
30	Electrochemical reduction of carbon dioxide on kinked stepped surfaces of platinum inside the stereographic triangle. Journal of Electroanalytical Chemistry, 2003, 540, 105-110.	3.8	30
31	Infrared Reflection Absorption Spectroscopy of the Sulfuric Acid Anion Adsorbed on Pd(S)-[n(111) (111)] Electrodes. Langmuir, 2004, 20, 5066-5070.	3.5	30
32	Atomic arrangement dependence of reduction rates of carbon dioxide on iridium single crystal electrodes. Journal of Electroanalytical Chemistry, 1995, 381, 261-264.	3.8	29
33	In Situ Surface X-ray Scattering of Stepped Surface of Platinum: Pt(311). Langmuir, 2007, 23, 10879-10882.	3.5	29
34	Structural Effects on the Hydrogen Oxidation Reaction on n(111) Surfaces of Platinum. Journal of Physical Chemistry C, 2009, 113, 16843-16846.	3.1	27
35	Impact of helical organization on the photovoltaic properties of oligothiophene supramolecular polymers. Chemical Science, 2018, 9, 3638-3643.	7.4	27
36	In Situ Spectroscopic Study on the Surface Hydroxylation of Diamond Electrodes. Analytical Chemistry, 2019, 91, 4980-4986.	6.5	26

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37	Vibrational Spectroscopic Observation of Atomic-Scale Local Surface Sites Using Site-Selective Signal Enhancement. <i>Nano Letters</i> , 2015, 15, 7982-7986.	9.1	25
38	CO ₂ reduction on Pt(S) -[n(111) \bar{A} — (111)] single crystal electrodes affected by the adsorption of sulfuric acid anion. <i>Journal of Electroanalytical Chemistry</i> , 1996, 416, 61-65.	3.8	24
39	In Situ Infrared Reflection Absorption Spectroscopy of Carbon Monoxide Adsorbed on Pt(S)-[n(100) \bar{A} —(110)] Electrodes. <i>Langmuir</i> , 2007, 23, 9092-9097.	3.5	23
40	Infrared Spectroscopy of Water Adsorbed on M(111) (M = Pt, Pd, Rh, Au, Cu) Electrodes in Sulfuric Acid Solution. <i>Journal of Physical Chemistry C</i> , 2008, 112, 9458-9463.	3.1	23
41	Estimation of Surface Structure and Carbon Monoxide Oxidation Site of Shape- \bar{A} Controlled Pt Nanoparticles. <i>ChemPhysChem</i> , 2009, 10, 2719-2724.	2.1	23
42	Structural Effects on the Oxygen Reduction Reaction on Pt Single-Crystal Electrodes Modified with Melamine. <i>Electrocatalysis</i> , 2020, 11, 275-281.	3.0	23
43	Configuration of adsorbed CO affected by the terrace width of Pt(S)-[n(111) \bar{A} —(111)] electrodes. <i>Chemical Physics Letters</i> , 2001, 336, 13-18.	2.6	22
44	Surface X-ray Scattering of Stepped Surfaces of Platinum in an Electrochemical Environment: Pt(331) = 3(111)-(111) and Pt(511) = 3(100)-(111). <i>Langmuir</i> , 2011, 27, 4236-4242.	3.5	22
45	Structural effects on the oxygen reduction reaction on the high index planes of Pt ₃ Ni: n(1 1 1) \bar{A} “(1 1 1) and n(1 1 1) \bar{A} “(1 0 0) surfaces. <i>Journal of Electroanalytical Chemistry</i> , 2014, 716, 58-62.	3.8	22
46	Effect of Hydrophobic Cations on the Inhibitors for the Oxygen Reduction Reaction on Anions and Ionomers Adsorbed on Single-Crystal Pt Electrodes. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 15866-15871.	8.0	22
47	Surface X-ray scattering of high index plane of platinum containing kink atoms in solid \bar{A} liquid interface: Pt(310)=3(100) \bar{A} “(110). <i>Electrochimica Acta</i> , 2008, 53, 6070-6075.	5.2	21
48	The Influence of Pt Oxide Film on the Activity for the Oxygen Reduction Reaction on Pt Single Crystal Electrodes. <i>Electrocatalysis</i> , 2014, 5, 354-360.	3.0	21
49	Structural effects on the oxygen reduction reaction on the high index planes of Pt ₃ Co. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 13774.	2.8	20
50	Ethanol Oxidation on Well-Ordered PtSn Surface Alloy on Pt(111) Electrode. <i>Journal of Physical Chemistry C</i> , 2013, 117, 18139-18143.	3.1	19
51	In-situ high-speed AFM of shape-controlled Pt nanoparticles in electrochemical environments: Structural effects on the dissolution mechanism. <i>Electrochemistry Communications</i> , 2016, 72, 5-9.	4.7	18
52	Infrared reflection absorption spectroscopy of carbon monoxide adsorbed on Pd(S)-[n(111) \bar{A} —(111)] and Pd(S)-[n(100) \bar{A} —(111)] electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2006, 587, 79-85.	3.8	17
53	Structure of the electrical double layer on Ag(100): Promotive effect of cationic species on Br adlayer formation. <i>Physical Review B</i> , 2011, 84, .	3.2	17
54	Surface Oxidation of Au(111) Electrode in Alkaline Media Studied by Using X-ray Diffraction and Infrared Spectroscopy: Effect of Alkali Metal Cation on the Alcohol Oxidation Reactions. <i>Journal of Physical Chemistry C</i> , 2015, 119, 23586-23591.	3.1	16

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55	Interfacial Structure of PtNi Surface Alloy on Pt(111) Electrode for Oxygen Reduction Reaction. ACS Omega, 2017, 2, 1858-1863.	3.5	16
56	The Oxygen Reduction Reaction on Kinked Stepped Surfaces of Pt. Electrocatalysis, 2017, 8, 46-50.	3.0	16
57	Atomic force microscopy of cubic Pt nanoparticles in electrochemical environments. Electrochemistry Communications, 2010, 12, 544-547.	4.7	15
58	In Situ ATR-IR Observation of the Electrochemical Oxidation of a Polycrystalline Boron-Doped Diamond Electrode in Acidic Solutions. Journal of Physical Chemistry C, 2018, 122, 27456-27461.	3.1	15
59	Activation of Oxygen Reduction Reaction on Well-Defined Pt Electrocatalysts in Alkaline Media Containing Hydrophobic Organic Cations. ACS Applied Energy Materials, 2019, 2, 3904-3909.	5.1	14
60	Atomic Force Microscopy of the Dissolution of Cubic and Tetrahedral Pt Nanoparticles in Electrochemical Environments. Journal of Physical Chemistry C, 2012, 116, 15134-15140.	3.1	13
61	Structural Dynamics of the Electrical Double Layer during Capacitive Charging/Discharging Processes. Journal of Physical Chemistry C, 2014, 118, 22136-22140.	3.1	13
62	Activity for the ORR on Pt-Pd-Co ternary alloy electrodes is markedly affected by surface structure and composition. Electrochemistry Communications, 2021, 125, 107007.	4.7	13
63	Structural effects on water molecules on the low index planes of Pt modified with alkyl amines and the correlation with the activity of the oxygen reduction reaction. Electrochemistry Communications, 2019, 106, 106536.	4.7	12
64	Surface X-ray Scattering of Pd(111) and Pd(100) Electrodes during the Oxygen Reduction Reaction. Electrochemistry, 2011, 79, 256-260.	1.4	11
65	Activity for the oxygen reduction reaction of the single crystal electrode of Ni modified with Pt. Electrochemistry Communications, 2016, 68, 15-18.	4.7	9
66	Real-time observation of interfacial ions during electrocrystallization. Scientific Reports, 2017, 7, 914.	3.3	9
67	In situ ATR-IR study of Fe(CN) ₆ ³⁻ /Fe(CN) ₆ ⁴⁻ redox system on boron-doped diamond electrode. Diamond and Related Materials, 2019, 93, 50-53.	3.9	9
68	Tailoring the hydrophilic and hydrophobic reaction fields of the electrode interface on single crystal Pt electrodes for hydrogen evolution/oxidation reactions. International Journal of Hydrogen Energy, 2021, 46, 28078-28086.	7.1	9
69	In situ infrared spectroscopy of dopamine oxidation/reduction reactions on a polycrystalline boron-doped diamond electrode. Carbon, 2021, 171, 814-818.	10.3	8
70	Electrochemical Reduction of CO ₂ on the Low Index Planes of Platinum in Acetonitrile. Electrochemistry, 1999, 67, 1144-1146.	1.4	8
71	Multilayer Relaxation of Ru(0001)-(2 Å ⁻²)-O Studied by Surface X-ray Diffraction. Journal of Physical Chemistry C, 2007, 111, 977-980.	3.1	7
72	Structural Effects on the Incident Photon-to-Current Conversion Efficiency of Zn Porphyrin Dyes on the Low-Index Planes of TiO ₂ . ACS Omega, 2017, 2, 128-135.	3.5	7

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73	Surface X-ray Scattering of Pd(110) and Pd(311) in Electrochemical Environments. <i>Electrochemistry</i> , 2014, 82, 351-354.	1.4	6
74	Elucidation of Activity Enhancement Factors for the Oxygen Reduction Reaction on Platinum and Palladium Single Crystal Electrodes. <i>Electrochemistry</i> , 2018, 86, 205-213.	1.4	6
75	Structural effects on voltammograms of the high index planes of Pd in alkaline solution. <i>Journal of Electroanalytical Chemistry</i> , 2021, 880, 114925.	3.8	6
76	Enhancement of the Activity for the Oxygen Reduction Reaction on Well-defined Single Crystal Electrodes of Pt by Hydrophobic Species. <i>Chemistry Letters</i> , 2021, 50, 72-79.	1.3	6
77	Structural Effects on Methanol Oxidation on Single Crystal Electrodes of Palladium. <i>Electrochemistry</i> , 2017, 85, 634-636.	1.4	5
78	Electrochemical Dechlorination of Chlorobenzene in Acetonitrile with Various Water Concentrations. <i>Electrochemistry</i> , 2004, 72, 852-854.	1.4	5
79	Effects of Surface Structures and Hydrophobic Species on the Oxygen Reduction Reaction Activity of Pt ₃ Fe Single-Crystal Electrodes. <i>Electrocatalysis</i> , 0, , .	3.0	5
80	Structural effects of the oxygen reduction reaction on the high index planes of Pt ₃ Fe. <i>Electrochemistry Communications</i> , 2022, 136, 107235.	4.7	5
81	Atomic force microscopy of the dissolution of cubic Pt nanoparticle on a carbon substrate. <i>Journal of Electroanalytical Chemistry</i> , 2012, 667, 7-10.	3.8	4
82	Potential Dependence of the Buckling Structure of the Interfacial Water Bilayer on a Graphene Electrode. <i>Journal of Physical Chemistry C</i> , 2018, 122, 7795-7800.	3.1	4
83	Electrical Double Layer on the Pt(111) Electrode Modeled under Ultrahigh Vacuum Conditions. <i>Journal of Physical Chemistry C</i> , 2022, 126, 4726-4732.	3.1	4
84	Infrared Reflection Absorption Spectroscopy of Sulfuric Acid Anion Adsorbed on High Index Planes of Platinum and Palladium. <i>Hyomen Kagaku</i> , 2004, 25, 76-83.	0.0	3
85	Dechlorination of Chlorobenzene on Single Crystal Electrodes of Platinum and Silver. <i>Electrochemistry</i> , 2005, 73, 424-428.	1.4	3
86	Cation Effects on ORR Activity on Low-index Planes of Pd in Alkaline Solution. <i>Electrochemistry</i> , 2021, 89, 145-147.	1.4	3
87	Structural Effects on the Activity for the Oxygen Reduction Reaction on the High-Index Planes of Palladium in Alkali Solution. <i>Electrocatalysis</i> , 2021, 12, 691-697.	3.0	3
88	Recent Progress in Electrochemical Surface Science with Atomic and Molecular Levels. <i>Electrochemistry</i> , 2009, 77, E1.	1.4	2
89	The Oxygen Reduction Reaction on Pt Single Crystal Electrodes Modified with Aromatic Organic Molecules. <i>Electrochemistry</i> , 2018, 86, 214-216.	1.4	2
90	Structural and Electrochemical Characterization of Ag Cubic-particles on HOPG. <i>Electrochemistry</i> , 2008, 76, 868-870.	1.4	1

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91	Effects of the Alkane on the Oxygen Reduction Reaction on Well-Defined Pt Surfaces. <i>Electrochemistry</i> , 2020, 88, 265-267.	1.4	1
92	Structural Dynamics of Adsorption Equilibrium for Iodine Adsorbed on Au(111). <i>Journal of Physical Chemistry C</i> , 2020, 124, 17711-17716.	3.1	1
93	The Oxygen Reduction Reaction on Nb-doped Titanium Dioxide Single Crystal Electrodes. <i>Electrochemistry</i> , 2021, 89, 1-3.	1.4	1
94	Structural Effects on the Fuel Cell Reactions on the Stepped Surfaces of Platinum and Palladium. <i>Hyomen Kagaku</i> , 2011, 32, 686-691.	0.0	0
95	Electrochemical Reactions on Single Crystal Electrodes of Noble Metals. <i>Materia Japan</i> , 2020, 59, 379-386.	0.1	0
96	Electrochemical high-speed AFM of single nanoparticle and local structure. <i>Denki Kagaku</i> , 2020, 88, 210-216.	0.0	0
97			