

Masashi Nakamura

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.

119
papers

2,580
citations

26
h-index

46
g-index

119
ext. papers

2,857
ext. citations

3.8
avg, IF

5.14
L-index

#	Paper	IF	Citations
119	Structural effects of the oxygen reduction reaction on the high index planes of Pt ₃ Fe. <i>Electrochemistry Communications</i> , 2022 , 136, 107235	5.1	1
118	Electrical Double Layer on the Pt(111) Electrode Modeled under Ultrahigh Vacuum Conditions. <i>Journal of Physical Chemistry C</i> , 2022 , 126, 4726-4732	3.8	1
117	Cation Effects on ORR Activity on Low-index Planes of Pd in Alkaline Solution. <i>Electrochemistry</i> , 2021 , 89, 145-147	1.2	1
116	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	9.5	4
115	Activity for the ORR on Pt-Pd-Co ternary alloy electrodes is markedly affected by surface structure and composition. <i>Electrochemistry Communications</i> , 2021 , 125, 107007	5.1	2
114	In situ infrared spectroscopy of dopamine oxidation/reduction reactions on a polycrystalline boron-doped diamond electrode. <i>Carbon</i> , 2021 , 171, 814-818	10.4	3
113	Structural effects on voltammograms of the high index planes of Pd in alkaline solution. <i>Journal of Electroanalytical Chemistry</i> , 2021 , 880, 114925	4.1	2
112	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	1.7	1
111	Tailoring the hydrophilic and hydrophobic reaction fields of the electrode interface on single crystal Pt electrodes for hydrogen evolution/oxidation reactions. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 28078-28086	6.7	3
110	The Oxygen Reduction Reaction on Nb-doped Titanium Dioxide Single Crystal Electrodes. <i>Electrochemistry</i> , 2021 , 89, 1-3	1.2	0
109	Effects of the Alkane on the Oxygen Reduction Reaction on Well-Defined Pt Surfaces. <i>Electrochemistry</i> , 2020 , 88, 265-267	1.2	1
108	Structural Dynamics of Adsorption Equilibrium for Iodine Adsorbed on Au(111). <i>Journal of Physical Chemistry C</i> , 2020 , 124, 17711-17716	3.8	1
107	Structural Effects on the Oxygen Reduction Reaction on Pt Single-Crystal Electrodes Modified with Melamine. <i>Electrocatalysis</i> , 2020 , 11, 275-281	2.7	11
106	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. <i>Electrochemistry Communications</i> , 2019 , 106, 106536	5.1	5
105	In situ ATR-IR study of Fe(CN) ₆ ³⁻ /Fe(CN) ₆ ⁴⁻ redox system on boron-doped diamond electrode. <i>Diamond and Related Materials</i> , 2019 , 93, 50-53	3.5	7
104	Activation of Oxygen Reduction Reaction on Well-Defined Pt Electrocatalysts in Alkaline Media Containing Hydrophobic Organic Cations. <i>ACS Applied Energy Materials</i> , 2019 , 2, 3904-3909	6.1	6
103	In Situ Spectroscopic Study on the Surface Hydroxylation of Diamond Electrodes. <i>Analytical Chemistry</i> , 2019 , 91, 4980-4986	7.8	14

102	Measurement of time-varying kinematics of a dolphin in burst accelerating swimming. <i>PLoS ONE</i> , 2019 , 14, e0210860	3.7	8
101	Thermal dehydrogenation of n-alkane on Au(111) and Pt(111) surface. <i>Surface Science</i> , 2019 , 681, 32-37	1.8	1
100	New insights on structural dynamics of electrochemical interface by time-resolved surface X-ray diffraction. <i>Current Opinion in Electrochemistry</i> , 2019 , 14, 200-205	7.2	9
99	Cyclic Voltammetry and in situ Infrared Reflection Absorption Spectroscopy on Kinetic Effect of Physisorbed Dioctadecylsulfide on a Cu-UPD Process on Au(111) Electrode Surface. <i>E-Journal of Surface Science and Nanotechnology</i> , 2018 , 16, 60-65	0.7	
98	Structural effects on the enhancement of ORR activity on Pt single-crystal electrodes modified with alkylamines. <i>Electrochemistry Communications</i> , 2018 , 87, 5-8	5.1	26
97	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	3.8	3
96	Effect of hydrophobic cations on the oxygen reduction reaction on single-crystal platinum electrodes. <i>Nature Communications</i> , 2018 , 9, 4378	17.4	45
95	In Situ ATR-IR Observation of the Electrochemical Oxidation of a Polycrystalline Boron-Doped Diamond Electrode in Acidic Solutions. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 27456-27461	3.8	9
94	The Oxygen Reduction Reaction on Pt Single Crystal Electrodes Modified with Aromatic Organic Molecules. <i>Electrochemistry</i> , 2018 , 86, 214-216	1.2	2
93	Elucidation of Activity Enhancement Factors for the Oxygen Reduction Reaction on Platinum and Palladium Single Crystal Electrodes. <i>Electrochemistry</i> , 2018 , 86, 205-213	1.2	6
92	Structural Effects on the Incident Photon-to-Current Conversion Efficiency of Zn Porphyrin Dyes on the Low-Index Planes of TiO. <i>ACS Omega</i> , 2017 , 2, 128-135	3.9	3
91	Compression-Induced Conformation and Orientation Changes in an n-Alkane Monolayer on a Au(111) Surface. <i>Langmuir</i> , 2017 , 33, 3934-3940	4	11
90	Interfacial Structure of PtNi Surface Alloy on Pt(111) Electrode for Oxygen Reduction Reaction. <i>ACS Omega</i> , 2017 , 2, 1858-1863	3.9	10
89	In situ observation of Pt oxides on the low index planes of Pt using surface enhanced Raman spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 27570-27579	3.6	22
88	Real-time observation of interfacial ions during electrocrystallization. <i>Scientific Reports</i> , 2017 , 7, 914	4.9	6
87	The Oxygen Reduction Reaction on Kinked Stepped Surfaces of Pt. <i>Electrocatalysis</i> , 2017 , 8, 46-50	2.7	15
86	Infrared spectroscopy of adsorbed OH on n(111) and n(111) series of Pt electrode. <i>Journal of Electroanalytical Chemistry</i> , 2017 , 800, 162-166	4.1	29
85	Structural Effects on Methanol Oxidation on Single Crystal Electrodes of Palladium. <i>Electrochemistry</i> , 2017 , 85, 634-636	1.2	4

84	Computational Fluid Dynamic Modeling of Dolphin Swimming and Analysis of Thrust-Generating Mechanism with Oscillating Tail Fin and Body. <i>The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME</i> , 2017 , 2017.29, 2F35	0	
83	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	5.1	14
82	Anisotropic Growth of Palladium Induced by an n-Alkane Template on Au(111). <i>Journal of Physical Chemistry C</i> , 2016 , 120, 5495-5502	3.8	5
81	Activity for the oxygen reduction reaction of the single crystal electrode of Ni modified with Pt. <i>Electrochemistry Communications</i> , 2016 , 68, 15-18	5.1	7
80	Infrared Reflection Absorption Spectroscopy of OH Adsorption on the Low Index Planes of Pt. <i>Electrocatalysis</i> , 2015 , 6, 295-299	2.7	51
79	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	3.8	12
78	Graphene nanoribbons formed from n-alkane by thermal dehydrogenation on Au(111) surface. <i>Surface Science</i> , 2015 , 635, 44-48	1.8	8
77	n-Alkane Monolayer on a Au(111) Template for Metal Growth. <i>E-Journal of Surface Science and Nanotechnology</i> , 2015 , 13, 209-212	0.7	1
76	Subnanometer vacancy defects introduced on graphene by oxygen gas. <i>Journal of the American Chemical Society</i> , 2014 , 136, 2232-5	16.4	98
75	AcidBase concerted mechanism in the dehydration of 1,4-butanediol over bixbyite rare earth oxide catalysts. <i>Catalysis Today</i> , 2014 , 226, 124-133	5.3	21
74	Structural effects on the oxygen reduction reaction on the high index planes of Pt ₃ Co. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 13774-9	3.6	14
73	The role of lattice parameter in water adsorption and wetting of a solid surface. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 24018-25	3.6	12
72	Structural Dynamics of the Electrical Double Layer during Capacitive Charging/Discharging Processes. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 22136-22140	3.8	11
71	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	2.7	18
70	Structural effects on the oxygen reduction reaction on the high index planes of Pt ₃ Ni: n(1 1 1) ₁ 1 1) and n(1 1 1) ₁ 1 0 0) surfaces. <i>Journal of Electroanalytical Chemistry</i> , 2014 , 716, 58-62	4.1	16
69	Surface X-ray Scattering of Pd(110) and Pd(311) in Electrochemical Environments. <i>Electrochemistry</i> , 2014 , 82, 351-354	1.2	6
68	Buried Interface between N-alkane Thin Film and Monolayer Graphene Studied by Depth-Dependent C K-NEXAFS. <i>Journal of Physics: Conference Series</i> , 2014 , 502, 012037	0.3	
67	J0220302 Computational Fluid Dynamic Analysis of Dolphin Swimming Using a Three-dimensional Real-shape Model. <i>The Proceedings of Mechanical Engineering Congress Japan</i> , 2014 , 2014, _J0220302--_J0220302-		

66	Ethanol Oxidation on Well-Ordered PtSn Surface Alloy on Pt(111) Electrode. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 18139-18143	3.8	18
65	Separation of C K-NEXAFS spectra for layer-by-layer analysis of carbon-based thin films: An n-alkane monolayer adsorbed on a monolayer graphene substrate grown on a Pt(1 1 1) surface. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013 , 189, 27-31	1.7	2
64	Analysis of heat-treated graphite oxide by X-ray photoelectron spectroscopy. <i>Journal of Materials Science</i> , 2013 , 48, 8171-8198	4.3	104
63	Active sites for the oxygen reduction reaction on the high index planes of Pt. <i>Electrochimica Acta</i> , 2013 , 112, 899-904	6.7	75
62	Depth-dependent C K-NEXAFS spectra for self-assembled monolayers of 4-methylbenzenethiol and 4-ethylbenzenethiol on Au(111). <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013 , 187, 72-76	1.7	10
61	Quantitating the lattice strain dependence of monolayer Pt shell activity toward oxygen reduction. <i>Journal of the American Chemical Society</i> , 2013 , 135, 5938-41	16.4	97
60	Grazing Incidence X-Ray Diffraction. <i>Springer Series in Surface Sciences</i> , 2013 , 165-190	0.4	10
59	Phase Transition of n-C ₃₆ H ₇₄ Monolayer on Pt(111) Covered with Monolayer Graphene Studied by C K-NEXAFS. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 21856-21863	3.8	7
58	Effect of non-specifically adsorbed ions on the surface oxidation of Pt(111). <i>ChemPhysChem</i> , 2013 , 14, 2426-31	3.2	36
57	1D Hydrogen Bond Chain on Pt(211) Stepped Surface Observed by O K-NEXAFS Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 13980-13984	3.8	17
56	Interfacial structure of Co porphyrins on Au(111) electrode: Interaction of porphyrin molecules with substrate. <i>Surface Science</i> , 2012 , 606, 1560-1564	1.8	7
55	Atomic force microscopy of the dissolution of cubic Pt nanoparticle on a carbon substrate. <i>Journal of Electroanalytical Chemistry</i> , 2012 , 667, 7-10	4.1	4
54	Structural effects on the activity for the oxygen reduction reaction on n(1 1 1)(1 0 0) series of Pt: correlation with the oxide film formation. <i>Electrochimica Acta</i> , 2012 , 82, 512-516	6.7	71
53	Atomic Force Microscopy of the Dissolution of Cubic and Tetrahedral Pt Nanoparticles in Electrochemical Environments. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 15134-15140	3.8	13
52	Surface X-ray Scattering of Pd(111) and Pd(100) Electrodes during the Oxygen Reduction Reaction. <i>Electrochemistry</i> , 2011 , 79, 256-260	1.2	8
51	Outer Helmholtz plane of the electrical double layer formed at the solid electrode-liquid interface. <i>ChemPhysChem</i> , 2011 , 12, 1430-4	3.2	55
50	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, 4236-42	4	20
49	Incommensurate Crystalline phase of n-Alkane Monolayers on Graphite (0001). <i>Journal of Physical Chemistry C</i> , 2011 , 115, 5720-5725	3.8	14

48	Orientation of n-alkane in thin films on graphite (0001) studied using C K-NEXAFS. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2011 , 184, 257-260	1.7	9
47	Active sites for the hydrogen oxidation and the hydrogen evolution reactions on the high index planes of Pt. <i>Journal of Electroanalytical Chemistry</i> , 2011 , 657, 61-65	4.1	26
46	Structural effects on the oxygen reduction reaction on n(111)(100) series of Pd. <i>Journal of Electroanalytical Chemistry</i> , 2011 , 657, 123-127	4.1	33
45	Cyclic voltammetry and near edge X-ray absorption fine structure spectroscopy at the Ag L3-edge on electrochemical halogenation of Ag layers on Au(111). <i>Surface Science</i> , 2011 , 605, 958-962	1.8	
44	Structural dependence of intermediate species for the hydrogen evolution reaction on single crystal electrodes of Pt. <i>Surface Science</i> , 2011 , 605, 1462-1465	1.8	25
43	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,	3.3	13
42	Catalytically active structure of Bi deposited on a Au(111) electrode for the hydrogen peroxide reduction reaction. <i>Langmuir</i> , 2010 , 26, 4590-3	4	18
41	Atomic force microscopy of cubic Pt nanoparticles in electrochemical environments. <i>Electrochemistry Communications</i> , 2010 , 12, 544-547	5.1	15
40	Estimation of surface structure and carbon monoxide oxidation site of shape-controlled Pt nanoparticles. <i>ChemPhysChem</i> , 2009 , 10, 2719-24	3.2	20
39	In situ observation of a Au (111) electrode surface using the X-ray reciprocal-lattice space imaging method. <i>Applied Surface Science</i> , 2009 , 256, 1144-1147	6.7	7
38	Oxygen reduction reaction on the low index planes of palladium electrodes modified with a monolayer of platinum film. <i>Electrochemistry Communications</i> , 2009 , 11, 2282-2284	5.1	31
37	Structural Effects on the Hydrogen Oxidation Reaction on n(111)(111) Surfaces of Platinum. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 16843-16846	3.8	24
36	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	3.8	169
35	One-Dimensional Zigzag Chain of Water Formed on a Stepped Surface. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 4538-4542	3.8	24
34	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	3.8	20
33	Structural and Electrochemical Characterization of Ag Cubic-particles on HOPG. <i>Electrochemistry</i> , 2008 , 76, 868-870	1.2	1
32	Structural effects on voltammograms of the low index planes of palladium and Pd(S)-[n(100)(111)] surfaces in alkaline solution. <i>Journal of Electroanalytical Chemistry</i> , 2008 , 624, 134-138	4.1	28
31	Surface X-ray scattering of high index plane of platinum containing kink atoms in solid-liquid interface: Pt(3 1 0) = 3(1 0 0)(1 1 0). <i>Electrochimica Acta</i> , 2008 , 53, 6070-6075	6.7	21

30	The surface structure of reconstructed Pt(211)-(2 x 1) determined using surface x-ray diffraction. <i>Transactions of the Materials Research Society of Japan</i> , 2008 , 33, 633-636	0.2	1
29	Multilayer Relaxation of Ru(0001)-(2 x 1)-O Studied by Surface X-ray Diffraction. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 977-980	3.8	7
28	In situ surface X-ray scattering of stepped surface of platinum: Pt(311). <i>Langmuir</i> , 2007 , 23, 10879-82	4	29
27	In situ infrared reflection absorption spectroscopy of carbon monoxide adsorbed on Pt(S)-[n(100)x(110)] electrodes. <i>Langmuir</i> , 2007 , 23, 9092-7	4	23
26	In-situ flow-cell IRAS observation of intermediates during methanol oxidation on low-index platinum surfaces. <i>ChemPhysChem</i> , 2007 , 8, 1846-9	3.2	24
25	Structural effects on the oxidation of formic acid on the high index planes of palladium. <i>Electrochemistry Communications</i> , 2007 , 9, 279-282	5.1	47
24	Enhancement of Toluene Formation by Water during Electrolysis of Chlorobenzene at Pt Electrode in Acetonitrile. <i>Electrochemistry</i> , 2007 , 75, 715-718	1.2	
23	Nanostructural Characterization of Surfaces, Interfaces, and Thinfilms using X-ray Reciprocal-Lattice Space Imaging. <i>Nihon Kessho Gakkaishi</i> , 2007 , 49, 292-299	0	1
22	Structural effects of electrochemical oxidation of formic acid on single crystal electrodes of palladium. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 12480-4	3.4	240
21	Water adsorption on a p(2x2)-Ni(111)-O surface studied by surface x-ray diffraction and infrared reflection absorption spectroscopy at 25 and 140 K. <i>Journal of Chemical Physics</i> , 2005 , 122, 224703	3.9	21
20	Coadsorption of water dimer and ring-hexamer clusters on M(1 1 1) (M = Cu, Ni, Pt) and Ru(0 0 1) surfaces at 25 K as studied by infrared reflection absorption spectroscopy. <i>Chemical Physics Letters</i> , 2005 , 404, 346-350	2.5	31
19	Monomer structures of water adsorbed on p(2 x 2)-Ni(111)-O surface at 25 and 140 K studied by surface X-ray diffraction. <i>Physical Review Letters</i> , 2005 , 94, 035501	7.4	18
18	Ring hexamer like cluster molecules of water formed on a Ni(111) surface. <i>Chemical Physics Letters</i> , 2004 , 384, 256-261	2.5	35
17	Disordered structure of Pt(111)-p(2x2) induced by synchrotron X-ray beam irradiation. <i>Surface Science</i> , 2004 , 563, 199-205	1.8	4
16	Sulfate and CO surface complexes formation with upd copper on Pd(111) and Pt(111) electrode surfaces: abnormal vibrational frequency shifts of CO and sulfate during upd processes. <i>Journal of Electroanalytical Chemistry</i> , 2004 , 563, 63-69	4.1	15
15	Surface structures at the initial stages in passive film formation on Ni(111) electrodes in acidic electrolytes. <i>Journal of Electroanalytical Chemistry</i> , 2004 , 566, 385-391	4.1	50
14	Two dimensional metal-oxianion surface complexes formation during the upd process on a Au(1 1 1) electrode studied by in situ surface X-ray diffraction and infrared reflection absorption spectroscopy. <i>Journal of Electroanalytical Chemistry</i> , 2003 , 554-555, 175-182	4.1	9
13	Beamline for Surface and Interface Structures at SPring-8. <i>Surface Review and Letters</i> , 2003 , 10, 543-547	1.1	120

12	Experimental Simulation of Electric Double Layer. <i>Hyomen Kagaku</i> , 2003 , 24, 764-770		
11	Surface X-ray diffraction study of Cu UPD on Au() electrode in 0.5 M H ₂ SO ₄ solution: the coadsorption structure of UPD copper, hydration water molecule and bisulfate anion on Au(). <i>Surface Science</i> , 2002 , 514, 227-233	1.8	68
10	Infrared spectroscopic study of water coadsorbed with Na on the Ru() surface. <i>Surface Science</i> , 2002 , 502-503, 144-148	1.8	12
9	Hydration processes on metal surfaces studied by IR and STM: a model for the potential drop across the electric double layers. <i>Surface Science</i> , 2002 , 502-503, 474-484	1.8	19
8	Coadsorption of water monomers with CO on Ru(001) and charge transfer during hydration processes. <i>Chemical Physics Letters</i> , 2001 , 335, 170-175	2.5	28
7	Coadsorption of water and CO molecules on Ru(001) at high CO coverages: comparisons with a Ru(001) electrode surface. <i>Surface Science</i> , 2001 , 490, 301-307	1.8	19
6	Hydrogen bonding between a water molecule and electronegative additives (O or Cl-) on a Pt(111) surface. <i>Chemical Physics Letters</i> , 2000 , 320, 381-386	2.5	16
5	Monomer and tetramer water clusters adsorbed on Ru(0001). <i>Chemical Physics Letters</i> , 2000 , 325, 293-298	2.5	53
4	The vibrational spectra of water cluster molecules on Pt(111) surface at 20 K. <i>Chemical Physics Letters</i> , 1999 , 309, 123-128	2.5	61
3	Adsorption of urea on Au(100) and Au(111) electrode surfaces studied by in-situ Fourier-transform infra-red spectroscopy. <i>Surface Science</i> , 1999 , 427-428, 167-172	1.8	9
2	Effects of Surface Structures and Hydrophobic Species on the Oxygen Reduction Reaction Activity of Pt ₃ Fe Single-Crystal Electrodes. <i>Electrocatalysis</i> ,	2.7	1
1	Structural Effects on the Activity for the Oxygen Reduction Reaction on the High-Index Planes of Palladium in Alkali Solution. <i>Electrocatalysis</i> ,1	2.7	1