

Masashi Nakamura

List of Publications by Year in descending order

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119
papers

3,183
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119
all docs

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docs citations

119
times ranked

3495
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	In situ infrared spectroscopy of dopamine oxidation/reduction reactions on a polycrystalline boron-doped diamond electrode. <i>Carbon</i> , 2021, 171, 814-818.	10.3	8
4	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
5	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
6	Cation Effects on ORR Activity on Low-index Planes of Pd in Alkaline Solution. <i>Electrochemistry</i> , 2021, 89, 145-147.	1.4	3
7	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
8	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.	4.7	13
9	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.	7.1	9
10	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
11	The Oxygen Reduction Reaction on Nb-doped Titanium Dioxide Single Crystal Electrodes. <i>Electrochemistry</i> , 2021, 89, 1-3.	1.4	1
12	Effects of the Alkane on the Oxygen Reduction Reaction on Well-Defined Pt Surfaces. <i>Electrochemistry</i> , 2020, 88, 265-267.	1.4	1
13	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
14	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
15	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.	4.7	12
16	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.	3.9	9
17	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.	5.1	14
18	In Situ Spectroscopic Study on the Surface Hydroxylation of Diamond Electrodes. <i>Analytical Chemistry</i> , 2019, 91, 4980-4986.	6.5	26

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19	Thermal dehydrogenation of n-alkane on Au(111) and Pt(111) surface. <i>Surface Science</i> , 2019, 681, 32-37.	1.9	2
20	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.	4.8	12
21	Measurement of time-varying kinematics of a dolphin in burst accelerating swimming. <i>PLoS ONE</i> , 2019, 14, e0210860.	2.5	18
22	Cyclic Voltammetry and <i>in situ</i> 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.	0.4	0
23	Structural effects on the enhancement of ORR activity on Pt single-crystal electrodes modified with alkylamines. <i>Electrochemistry Communications</i> , 2018, 87, 5-8.	4.7	37
24	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
25	Effect of hydrophobic cations on the oxygen reduction reaction on single-crystal platinum electrodes. <i>Nature Communications</i> , 2018, 9, 4378.	12.8	87
26	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.	3.1	15
27	The Oxygen Reduction Reaction on Pt Single Crystal Electrodes Modified with Aromatic Organic Molecules. <i>Electrochemistry</i> , 2018, 86, 214-216.	1.4	2
28	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
29	Structural Effects on the Incident Photon-to-Current Conversion Efficiency of Zn Porphyrin Dyes on the Low-Index Planes of TiO ₂ . <i>ACS Omega</i> , 2017, 2, 128-135.	3.5	7
30	Compression-Induced Conformation and Orientation Changes in an <i>n</i> -Alkane Monolayer on a Au(111) Surface. <i>Langmuir</i> , 2017, 33, 3934-3940.	3.5	13
31	Interfacial Structure of PtNi Surface Alloy on Pt(111) Electrode for Oxygen Reduction Reaction. <i>ACS Omega</i> , 2017, 2, 1858-1863.	3.5	16
32	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.	2.8	33
33	Real-time observation of interfacial ions during electrocrystallization. <i>Scientific Reports</i> , 2017, 7, 914.	3.3	9
34	The Oxygen Reduction Reaction on Kinked Stepped Surfaces of Pt. <i>Electrocatalysis</i> , 2017, 8, 46-50.	3.0	16
35	Infrared spectroscopy of adsorbed OH on <i>n</i> (111) and <i>n</i> (111) series of Pt electrode. <i>Journal of Electroanalytical Chemistry</i> , 2017, 800, 162-166.	3.8	40
36	Structural Effects on Methanol Oxidation on Single Crystal Electrodes of Palladium. <i>Electrochemistry</i> , 2017, 85, 634-636.	1.4	5

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37	Computational Fluid Dynamic Modeling of Dolphin Swimming and Analysis of Thrust-Generating Mechanism with Oscillating Tail Fin and Body. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2017, 2017.29, 2F35.	0.0	0
38	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
39	In-situ high-speed AFM of shape-controlled Pt nanoparticles in electrochemical environments: Structural effects on the dissolution mechanism. Electrochemistry Communications, 2016, 72, 5-9.	4.7	18
40	Anisotropic Growth of Palladium Induced by an <i>n</i> -Alkane Template on Au(111). Journal of Physical Chemistry C, 2016, 120, 5495-5502.	3.1	6
41	<i>n</i> -Alkane Monolayer on a Au(111) Template for Metal Growth. E-Journal of Surface Science and Nanotechnology, 2015, 13, 209-212.	0.4	1
42	Infrared Reflection Absorption Spectroscopy of OH Adsorption on the Low Index Planes of Pt. Electrocatalysis, 2015, 6, 295-299.	3.0	65
43	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. Journal of Physical Chemistry C, 2015, 119, 23586-23591.	3.1	16
44	Graphene nanoribbons formed from <i>n</i> -alkane by thermal dehydrogenation on Au(111) surface. Surface Science, 2015, 635, 44-48.	1.9	9
45	Subnanometer Vacancy Defects Introduced on Graphene by Oxygen Gas. Journal of the American Chemical Society, 2014, 136, 2232-2235.	13.7	125
46	Acid-base concerted mechanism in the dehydration of 1,4-butanediol over bixbyite rare earth oxide catalysts. Catalysis Today, 2014, 226, 124-133.	4.4	23
47	Structural effects on the oxygen reduction reaction on the high index planes of Pt ₃ Co. Physical Chemistry Chemical Physics, 2014, 16, 13774.	2.8	20
48	The role of lattice parameter in water adsorption and wetting of a solid surface. Physical Chemistry Chemical Physics, 2014, 16, 24018-24025.	2.8	13
49	Structural Dynamics of the Electrical Double Layer during Capacitive Charging/Discharging Processes. Journal of Physical Chemistry C, 2014, 118, 22136-22140.	3.1	13
50	The Influence of Pt Oxide Film on the Activity for the Oxygen Reduction Reaction on Pt Single Crystal Electrodes. Electrocatalysis, 2014, 5, 354-360.	3.0	21
51	Structural effects on the oxygen reduction reaction on the high index planes of Pt ₃ Ni: $n(1\ 1\ 1)\hat{=}(1\ 1\ 1)$ and $n(1\ 1\ 1)\hat{=}(1\ 0\ 0)$ surfaces. Journal of Electroanalytical Chemistry, 2014, 716, 58-62.	3.8	22
52	Surface X-ray Scattering of Pd(110) and Pd(311) in Electrochemical Environments. Electrochemistry, 2014, 82, 351-354.	1.4	6
53	Buried Interface between <i>n</i> -alkane Thin Film and Monolayer Graphene Studied by Depth-Dependent C K-NEXAFS. Journal of Physics: Conference Series, 2014, 502, 012037.	0.4	0
54	J0220302 Computational Fluid Dynamic Analysis of Dolphin Swimming Using a Three-dimensional Real-shape Model. The Proceedings of Mechanical Engineering Congress Japan, 2014, 2014, _J0220302-_J0220302-.	0.0	0

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55	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
56	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(111) surface. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013, 189, 27-31.	1.7	2
57	Analysis of heat-treated graphite oxide by X-ray photoelectron spectroscopy. <i>Journal of Materials Science</i> , 2013, 48, 8171-8198.	3.7	147
58	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
59	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	11
60	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
61	Grazing Incidence X-Ray Diffraction. <i>Springer Series in Surface Sciences</i> , 2013, , 165-190.	0.3	15
62	Phase Transition of $\sqrt{3} \times \sqrt{3}$ Monolayer on Pt(111) Covered with Monolayer Graphene Studied by C K-NEXAFS. <i>Journal of Physical Chemistry C</i> , 2013, 117, 21856-21863.	3.1	7
63	Effect of Non-specifically Adsorbed Ions on the Surface Oxidation of Pt(111). <i>ChemPhysChem</i> , 2013, 14, 2426-2431.	2.1	51
64	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.	3.1	19
65	Interfacial structure of Co porphyrins on Au(111) electrode: Interaction of porphyrin molecules with substrate. <i>Surface Science</i> , 2012, 606, 1560-1564.	1.9	8
66	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
67	Structural effects on the activity for the oxygen reduction reaction on $n(111)\{100\}$ series of Pt: correlation with the oxide film formation. <i>Electrochimica Acta</i> , 2012, 82, 512-516.	5.2	79
68	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.	3.1	13
69	Surface X-ray Scattering of Stepped Surfaces of Platinum in an Electrochemical Environment: $\text{Pt}(331) = 3(111)\text{-}(111)$ and $\text{Pt}(511) = 3(100)\text{-}(111)$. <i>Langmuir</i> , 2011, 27, 4236-4242.	3.5	22
70	Incommensurate Crystalline phase of $\sqrt{3} \times \sqrt{3}$ -Alkane Monolayers on Graphite (0001). <i>Journal of Physical Chemistry C</i> , 2011, 115, 5720-5725.	3.1	17
71	Surface X-ray Scattering of Pd(111) and Pd(100) Electrodes during the Oxygen Reduction Reaction. <i>Electrochemistry</i> , 2011, 79, 256-260.	1.4	11
72	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

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73	Orientation of n-alkane in thin films on graphite (0001) studied using C K-NEXAFS. Journal of Electron Spectroscopy and Related Phenomena, 2011, 184, 257-260.	1.7	10
74	Active sites for the hydrogen oxidation and the hydrogen evolution reactions on the high index planes of Pt. Journal of Electroanalytical Chemistry, 2011, 657, 61-65.	3.8	30
75	Structural effects on the oxygen reduction reaction on n(111)â“(100) series of Pd. Journal of Electroanalytical Chemistry, 2011, 657, 123-127.	3.8	36
76	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). Surface Science, 2011, 605, 958-962.	1.9	0
77	Structural dependence of intermediate species for the hydrogen evolution reaction on single crystal electrodes of Pt. Surface Science, 2011, 605, 1462-1465.	1.9	31
78	Structure of the electrical double layer on Ag(100): Promotive effect of cationic species on Br adlayer formation. Physical Review B, 2011, 84, .	3.2	17
79	Atomic force microscopy of cubic Pt nanoparticles in electrochemical environments. Electrochemistry Communications, 2010, 12, 544-547.	4.7	15
80	Catalytically Active Structure of Bi Deposited on a Au(111) Electrode for the Hydrogen Peroxide Reduction Reaction. Langmuir, 2010, 26, 4590-4593.	3.5	20
81	Estimation of Surface Structure and Carbon Monoxide Oxidation Site of Shapeâ€Controlled Pt Nanoparticles. ChemPhysChem, 2009, 10, 2719-2724.	2.1	23
82	In situ observation of a Au (111) electrode surface using the X-ray reciprocal-lattice space imaging method. Applied Surface Science, 2009, 256, 1144-1147.	6.1	7
83	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
84	Structural Effects on the Hydrogen Oxidation Reaction on $\langle 111 \rangle$ Surfaces of Platinum. Journal of Physical Chemistry C, 2009, 113, 16843-16846.	3.1	27
85	Active Sites for the Oxygen Reduction Reaction on the Low and High Index Planes of Palladium. Journal of Physical Chemistry C, 2009, 113, 12625-12628.	3.1	184
86	One-Dimensional Zigzag Chain of Water Formed on a Stepped Surface. Journal of Physical Chemistry C, 2009, 113, 4538-4542.	3.1	26
87	Structural effects on voltammograms of the low index planes of palladium and Pd(S)-[n(100)Ã“(111)] surfaces in alkaline solution. Journal of Electroanalytical Chemistry, 2008, 624, 134-138.	3.8	37
88	Surface X-ray scattering of high index plane of platinum containing kink atoms in solidâ€liquid interface: Pt(310)=3(100)â“(110). Electrochimica Acta, 2008, 53, 6070-6075.	5.2	21
89	Infrared Spectroscopy of Water Adsorbed on M(111) (M = Pt, Pd, Rh, Au, Cu) Electrodes in Sulfuric Acid Solution. Journal of Physical Chemistry C, 2008, 112, 9458-9463.	3.1	23
90	Structural and Electrochemical Characterization of Ag Cubic-particles on HOPG. Electrochemistry, 2008, 76, 868-870.	1.4	1

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91	The surface structure of reconstructed Pt(211)-(2 x 1) determined using surface x-ray diffraction. Transactions of the Materials Research Society of Japan, 2008, 33, 633-636.	0.2	1
92	Enhancement of Toluene Formation by Water during Electrolysis of Chlorobenzene at Pt Electrode in Acetonitrile. Electrochemistry, 2007, 75, 715-718.	1.4	1
93	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
94	In Situ Surface X-ray Scattering of Stepped Surface of Platinum: Pt(311). Langmuir, 2007, 23, 10879-10882.	3.5	29
95	In Situ Infrared Reflection Absorption Spectroscopy of Carbon Monoxide Adsorbed on Pt(S)-[n(100)Å-(110)] Electrodes. Langmuir, 2007, 23, 9092-9097.	3.5	23
96	In-situ Flow-Cell IRAS Observation of Intermediates during Methanol Oxidation on Low-Index Platinum Surfaces. ChemPhysChem, 2007, 8, 1846-1849.	2.1	24
97	Structural effects on the oxidation of formic acid on the high index planes of palladium. Electrochemistry Communications, 2007, 9, 279-282.	4.7	55
98	Nanostructural Characterization of Surfaces, Interfaces, and Thinfilms using X-ray Reciprocal-Lattice Space Imaging. Nihon Kessho Gakkaishi, 2007, 49, 292-299.	0.0	1
99	Structural Effects of Electrochemical Oxidation of Formic Acid on Single Crystal Electrodes of Palladium. Journal of Physical Chemistry B, 2006, 110, 12480-12484.	2.6	262
100	Coadsorption of water dimer and ring-hexamer clusters on M(111) (M=Cu, Ni, Pt) and Ru(001) surfaces at 25K as studied by infrared reflection absorption spectroscopy. Chemical Physics Letters, 2005, 404, 346-350.	2.6	32
101	Monomer Structures of Water Adsorbed on p(2Å ⁻²)-Ni(111) Surface at 25 and 140ÅK Studied by Surface X-Ray Diffraction. Physical Review Letters, 2005, 94, 035501.	7.8	18
102	Water adsorption on a p(2Å ⁻²)-Ni(111) surface studied by surface x-ray diffraction and infrared reflection absorption spectroscopy at 25 and 140K. Journal of Chemical Physics, 2005, 122, 224703.	3.0	24
103	Ring hexamer like cluster molecules of water formed on a Ni(111) surface. Chemical Physics Letters, 2004, 384, 256-261.	2.6	39
104	Disordered structure of Pt(111)-p(2Å ⁻²) induced by synchrotron X-ray beam irradiation. Surface Science, 2004, 563, 199-205.	1.9	5
105	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. Journal of Electroanalytical Chemistry, 2004, 563, 63-69.	3.8	17
106	Surface structures at the initial stages in passive film formation on Ni(111) electrodes in acidic electrolytes. Journal of Electroanalytical Chemistry, 2004, 566, 385-391.	3.8	55
107	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. Journal of Electroanalytical Chemistry, 2003, 554-555, 175-182.	3.8	9
108	Beamline for Surface and Interface Structures at SPring-8. Surface Review and Letters, 2003, 10, 543-547.	1.1	140

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109	Experimental Simulation of Electric Double Layer. Hyomen Kagaku, 2003, 24, 764-770.	0.0	0
110	Infrared spectroscopic study of water coadsorbed with Na on the Ru() surface. Surface Science, 2002, 502-503, 144-148.	1.9	12
111	Hydration processes on metal surfaces studied by IR and STM: a model for the potential drop across the electric double layers. Surface Science, 2002, 502-503, 474-484.	1.9	19
112	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(). Surface Science, 2002, 514, 227-233.	1.9	82
113	Coadsorption of water and CO molecules on Ru(001) at high CO coverages: comparisons with a Ru(001) electrode surface. Surface Science, 2001, 490, 301-307.	1.9	23
114	Coadsorption of water monomers with CO on Ru(001) and charge transfer during hydration processes. Chemical Physics Letters, 2001, 335, 170-175.	2.6	33
115	Hydrogen bonding between a water molecule and electronegative additives (O or Cl-) on a Pt(111) surface. Chemical Physics Letters, 2000, 320, 381-386.	2.6	20
116	Monomer and tetramer water clusters adsorbed on Ru(0001). Chemical Physics Letters, 2000, 325, 293-298.	2.6	58
117	The vibrational spectra of water cluster molecules on Pt(111) surface at 20 K. Chemical Physics Letters, 1999, 309, 123-128.	2.6	69
118	Adsorption of urea on Au(100) and Au(111) electrode surfaces studied by in-situ Fourier-transform infra-red spectroscopy. Surface Science, 1999, 427-428, 167-172.	1.9	11
119	Effects of Surface Structures and Hydrophobic Species on the Oxygen Reduction Reaction Activity of Pt ₃ Fe Single-Crystal Electrodes. Electrocatalysis, 0, , .	3.0	5