

Yuki Kitazumi

List of Publications by Year in descending order

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100
papers

1,880
citations

218677

26
h-index

315739

38
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103
all docs

103
docs citations

103
times ranked

1081
citing authors

#	ARTICLE	IF	CITATIONS
1	Severe Problems of the Voltage-clamp Method in Concurrent Monitoring of Membrane Potentials. <i>Electroanalysis</i> , 2022, 34, 1299-1307.	2.9	2
2	Ion transport across bilayer lipid membranes in the presence of tetraphenylborate. <i>Analytical Sciences</i> , 2022, , 1.	1.6	0
3	Inhibition of direct-electron-transfer-type bioelectrocatalysis of bilirubin oxidase by silver ions. <i>Analytical Sciences</i> , 2022, , 1.	1.6	1
4	Multiple electron transfer pathways of tungsten-containing formate dehydrogenase in direct electron transfer-type bioelectrocatalysis. <i>Chemical Communications</i> , 2022, 58, 6478-6481.	4.1	10
5	Effects of N-linked glycans of bilirubin oxidase on direct electron transfer-type bioelectrocatalysis. <i>Bioelectrochemistry</i> , 2022, 146, 108141.	4.6	3
6	Cyclic voltammetry and electrochemical impedance simulations of the mediator-type enzyme electrode reaction using finite element method. <i>Electrochimica Acta</i> , 2021, 367, 137483.	5.2	8
7	Enhancement of the Direct Electron Transfer-type Bioelectrocatalysis of Bilirubin Oxidase at the Interface between Carbon Particles. <i>Electrochemistry</i> , 2021, 89, 43-48.	1.4	2
8	Direct electron transfer-type bioelectrocatalysis by membrane-bound aldehyde dehydrogenase from <i>Gluconobacter oxydans</i> and cyanide effects on its bioelectrocatalytic properties. <i>Electrochemistry Communications</i> , 2021, 123, 106911.	4.7	13
9	Pollution Control of Nitrate-selective Membrane by the Inner Solution and On-site Monitoring of Nitrate Concentration in Soil. <i>Analytical Sciences</i> , 2021, 37, 887-891.	1.6	2
10	The Redox Potential Measurements for Heme Moieties in Variants of D-Fructose Dehydrogenase Based on Mediator-assisted Potentiometric Titration. <i>Electrochemistry</i> , 2021, 89, 337-339.	1.4	1
11	Improvement in the Power Output of a Reverse Electrodialysis System by the Addition of Poly(sodium Tj ETQq1 1 Q.784314 rgBT /Over	1.4	2
12	Cyanide sensitivity in direct electron transfer-type bioelectrocatalysis by membrane-bound alcohol dehydrogenase from <i>Gluconobacter oxydans</i> . <i>Bioelectrochemistry</i> , 2021, 143, 107992.	4.6	4
13	Characteristic Properties of Redox Enzymes as Electrocatalysts. , 2021, , 79-91.		0
14	Protein-Engineering Approach for Improvement of DET-Type Bioelectrocatalytic Performance. , 2021, , 93-104.		0
15	Applications to Biosensors. , 2021, , 105-114.		1
16	Development of Electrochemical Sensors for Nutrient Components. <i>Bunseki Kagaku</i> , 2021, 70, 501-510.	0.2	0
17	Kinetic Analysis of Oxygen Dissolution by Bubble-attaching Electrodes. <i>Bunseki Kagaku</i> , 2021, 70, 551-555.	0.2	0
18	Fabrication of a Phosphate Ion Selective Electrode Based on Modified Molybdenum Metal. <i>Analytical Sciences</i> , 2020, 36, 201-205.	1.6	13

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19	Development Perspective of Bioelectrocatalysis-Based Biosensors. <i>Sensors</i> , 2020, 20, 4826.	3.8	29
20	Diffusion-limited electrochemical d-fructose sensor based on direct electron transfer-type bioelectrocatalysis by a variant of d-fructose dehydrogenase at a porous gold microelectrode. <i>Journal of Electroanalytical Chemistry</i> , 2020, 877, 114651.	3.8	11
21	Recent Progress in Applications of Enzymatic Bioelectrocatalysis. <i>Catalysts</i> , 2020, 10, 1413.	3.5	13
22	Automatic Management of Nutrient Solution for Hydroponics—Construction of Multi-ion State”. <i>Analytical Sciences</i> , 2020, 36, 1141-1144.	1.6	10
23	Direct Electron Transfer-Type Bioelectrocatalysis of Redox Enzymes at Nanostructured Electrodes. <i>Catalysts</i> , 2020, 10, 236.	3.5	32
24	Permselectivity of Gramicidin A Channels Based on Single-Channel Recordings. <i>Electroanalysis</i> , 2020, 32, 1093-1099.	2.9	2
25	Diffusion-limited biosensing of dissolved oxygen by direct electron transfer-type bioelectrocatalysis of multi-copper oxidases immobilized on porous gold microelectrodes. <i>Journal of Electroanalytical Chemistry</i> , 2020, 860, 113895.	3.8	23
26	Direct electron transfer-type bioelectrocatalysis of FAD-dependent glucose dehydrogenase using porous gold electrodes and enzymatically implanted platinum nanoclusters. <i>Bioelectrochemistry</i> , 2020, 133, 107457.	4.6	23
27	Significance of Nanostructures of an Electrode Surface in Direct Electron Transfer-Type Bioelectrocatalysis of Redox Enzymes. <i>ACS Symposium Series</i> , 2020, , 147-163.	0.5	0
28	Effects of Elimination of α -Helix Regions on Direct Electron Transfer-type Bioelectrocatalytic Properties of Copper Efflux Oxidase. <i>Electrochemistry</i> , 2020, 88, 185-189.	1.4	9
29	Discussion on Direct Electron Transfer-Type Bioelectrocatalysis of Downsized and Axial-Ligand Exchanged Variants of d-Fructose Dehydrogenase. <i>Electrochemistry</i> , 2020, 88, 195-199.	1.4	8
30	Rapid Fabrication of Nanoporous Gold as a Suitable Platform for the Direct Electron Transfer-type Bioelectrocatalysis of Bilirubin Oxidase. <i>Electrochemistry</i> , 2020, 88, 444-446.	1.4	3
31	Significance of Nano-Structures of Carbon Materials for Direct-Electron-Transfer-type Bioelectrocatalysis of Bilirubin Oxidase. <i>Electrochemistry</i> , 2020, 88, 374-379.	1.4	6
32	Bioelectrochemical and Reversible Interconversion in the Proton/Hydrogen and Carbon Dioxide/Formate Redox Systems and Its Significance in Future Energy Systems. , 2020, , 81-99.		2
33	A Bio-solar Cell with Thylakoid Membranes and Bilirubin Oxidase. <i>Chemistry Letters</i> , 2019, 48, 686-689.	1.3	16
34	Bioelectrocatalytic performance of d-fructose dehydrogenase. <i>Bioelectrochemistry</i> , 2019, 129, 1-9.	4.6	30
35	Improved direct electron transfer-type bioelectrocatalysis of bilirubin oxidase using porous gold electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2019, 843, 47-53.	3.8	37
36	Performance analysis of an oxidase/peroxidase-based mediatorless amperometric biosensor. <i>Journal of Electroanalytical Chemistry</i> , 2019, 841, 73-78.	3.8	13

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37	Electrochemical pH sensor based on a hydrogen-storage palladium electrode with Teflon covering to increase stability. <i>Electrochemistry Communications</i> , 2019, 101, 73-77.	4.7	4
38	The origin of hyperpolarization based on the directional conduction of action potential using a model nerve cell system. <i>Bioelectrochemistry</i> , 2019, 128, 155-164.	4.6	7
39	Construction of an Automatic Nutrient Solution Management System for Hydroponics-Adjustment of the K ⁺ -Concentration and Volume of Water. <i>Analytical Sciences</i> , 2019, 35, 595-598.	1.6	9
40	Protein-Engineering Improvement of Direct Electron Transfer-Type Bioelectrocatalytic Properties of d-Fructose Dehydrogenase. <i>Electrochemistry</i> , 2019, 87, 47-51.	1.4	18
41	Improved direct electron transfer-type bioelectrocatalysis of bilirubin oxidase using thiol-modified gold nanoparticles on mesoporous carbon electrode. <i>Journal of Electroanalytical Chemistry</i> , 2019, 832, 158-164.	3.8	23
42	Ultimate downsizing of d-fructose dehydrogenase for improving the performance of direct electron transfer-type bioelectrocatalysis. <i>Electrochemistry Communications</i> , 2019, 98, 101-105.	4.7	30
43	Construction of photo-driven bioanodes using thylakoid membranes and multi-walled carbon nanotubes. <i>Bioelectrochemistry</i> , 2018, 122, 158-163.	4.6	24
44	A model of the potential-dependent adsorption of charged redox-active species at the electrode surface. <i>Electrochimica Acta</i> , 2018, 259, 542-551.	5.2	4
45	Inhibition of Ion Transport through Gramicidin A Channels by the Addition of Local Anesthetic Procaine. <i>Electroanalysis</i> , 2018, 30, 304-309.	2.9	3
46	Electrochemical Study on the Extracellular Electron Transfer Pathway from <i>Shewanella</i> Strain Hac319 to Electrodes. <i>Analytical Sciences</i> , 2018, 34, 1177-1182.	1.6	6
47	Electroanalytical Chemistry Based on the Theories of an Electrical Double Layer and a Reaction-diffusion Layer. <i>Bunseki Kagaku</i> , 2018, 67, 387-395.	0.2	1
48	Construction of a bioelectrochemical formate generating system from carbon dioxide and dihydrogen. <i>Electrochemistry Communications</i> , 2018, 97, 73-76.	4.7	14
49	Construction of Nitrate-selective Electrodes and Monitoring of Nitrates in Hydroponic Solutions. <i>Analytical Sciences</i> , 2018, 34, 1373-1377.	1.6	10
50	Simultaneous Detection of Lactate Enantiomers Based on Diffusion-controlled Bioelectrocatalysis. <i>Analytical Sciences</i> , 2018, 34, 1137-1142.	1.6	13
51	Carbon-nanotube-caged microbial electrodes for bioelectrocatalysis. <i>Enzyme and Microbial Technology</i> , 2018, 117, 41-44.	3.2	6
52	Reactivation of standard [NiFe]-hydrogenase and bioelectrochemical catalysis of proton reduction and hydrogen oxidation in a mediated-electron-transfer system. <i>Bioelectrochemistry</i> , 2018, 123, 156-161.	4.6	22
53	Nanostructured Porous Electrodes by the Anodization of Gold for an Application as Scaffolds in Direct-electron-transfer-type Bioelectrocatalysis. <i>Analytical Sciences</i> , 2018, 34, 1317-1322.	1.6	26
54	Direct electron transfer-type bioelectrocatalytic interconversion of carbon dioxide/formate and NAD ⁺ /NADH redox couples with tungsten-containing formate dehydrogenase. <i>Electrochimica Acta</i> , 2017, 228, 537-544.	5.2	43

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55	Electrostatic roles in electron transfer from [NiFe] hydrogenase to cytochrome c 3 from <i>Desulfovibrio vulgaris</i> Miyazaki F. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2017, 1865, 481-487.	2.3	8
56	Construction of a protein-engineered variant of d-fructose dehydrogenase for direct electron transfer-type bioelectrocatalysis. <i>Electrochemistry Communications</i> , 2017, 77, 112-115.	4.7	38
57	Identification of the binding sites for ubiquinone and inhibitors in the Na ⁺ -pumping NADH-ubiquinone oxidoreductase from <i>Vibrio cholerae</i> by photoaffinity labeling. <i>Journal of Biological Chemistry</i> , 2017, 292, 7727-7742.	3.4	19
58	Putrescine oxidase/peroxidase-co-immobilized and mediator-less mesoporous microelectrode for diffusion-controlled steady-state amperometric detection of putrescine. <i>Journal of Electroanalytical Chemistry</i> , 2017, 804, 128-132.	3.8	19
59	Direct electron transfer-type four-way bioelectrocatalysis of CO ₂ /formate and NAD ⁺ /NADH redox couples by tungsten-containing formate dehydrogenase adsorbed on gold nanoparticle-embedded mesoporous carbon electrodes modified with 4-mercaptopyridine. <i>Electrochemistry Communications</i> , 2017, 84, 75-79.	4.7	42
60	High-Power Formate/Dioxygen Biofuel Cell Based on Mediated Electron Transfer Type Bioelectrocatalysis. <i>ACS Catalysis</i> , 2017, 7, 5668-5673.	11.2	51
61	Factors affecting the interaction between carbon nanotubes and redox enzymes in direct electron transfer-type bioelectrocatalysis. <i>Bioelectrochemistry</i> , 2017, 118, 70-74.	4.6	22
62	Diffusion-controlled Mediated Electron Transfer-type Bioelectrocatalysis Using Microband Electrodes as Ultimate Amperometric Glucose Sensors. <i>Analytical Sciences</i> , 2017, 33, 845-851.	1.6	30
63	Effects of Mesoporous Structures on Direct Electron Transfer-Type Bioelectrocatalysis: Facts and Simulation on a Three-Dimensional Model of Random Orientation of Enzymes. <i>Electrochemistry</i> , 2017, 85, 82-87.	1.4	55
64	Direct Electron Transfer-type Bioelectrocatalysis of Peroxidase at Mesoporous Carbon Electrodes and Its Application for Glucose Determination Based on Bienzyme System. <i>Analytical Sciences</i> , 2017, 33, 839-844.	1.6	30
65	Coupling of Proton Transport across Planar Lipid Bilayer and Electron Transport Catalyzed by Membrane-bound Enzyme <i>D</i> -Fructose Dehydrogenase. <i>Electrochemistry</i> , 2016, 84, 328-333.	1.4	3
66	Direct electron transfer-type dual gas diffusion H ₂ /O ₂ biofuel cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 8742-8749.	10.3	61
67	Mutation of heme c axial ligands in d-fructose dehydrogenase for investigation of electron transfer pathways and reduction of overpotential in direct electron transfer-type bioelectrocatalysis. <i>Electrochemistry Communications</i> , 2016, 67, 43-46.	4.7	34
68	Bioelectrocatalytic formate oxidation and carbon dioxide reduction at high current density and low overpotential with tungsten-containing formate dehydrogenase and mediators. <i>Electrochemistry Communications</i> , 2016, 65, 31-34.	4.7	42
69	Binder/surfactant-free biocathode with bilirubin oxidase for gas-diffusion-type system. <i>Electrochemistry Communications</i> , 2016, 66, 58-61.	4.7	15
70	Potentiometric coulometry using a liquid-film-modified electrode as a reversible surface-confined system. <i>Journal of Electroanalytical Chemistry</i> , 2016, 780, 114-118.	3.8	6
71	Relation between Membrane Transport and Transport within Body Fluid on the Expression of Pharmacological Activities of Drugs — Mass Transfer in the Quantitative Structure-activity Relationship (QSAR) —. <i>Bunseki Kagaku</i> , 2016, 65, 249-258.	0.2	4
72	Significance of Mesoporous Electrodes for Noncatalytic Faradaic Process of Randomly Oriented Redox Proteins. <i>Journal of Physical Chemistry C</i> , 2016, 120, 26270-26277.	3.1	38

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73	Efficient bioelectrocatalytic CO ₂ reduction on gas-diffusion-type biocathode with tungsten-containing formate dehydrogenase. <i>Electrochemistry Communications</i> , 2016, 73, 85-88.	4.7	54
74	Analysis of factors governing direct electron transfer-type bioelectrocatalysis of bilirubin oxidase at modified electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2016, 783, 316-323.	3.8	37
75	Dual gas-diffusion membrane- and mediatorless dihydrogen/air-breathing biofuel cell operating at room temperature. <i>Journal of Power Sources</i> , 2016, 335, 105-112.	7.8	67
76	Electrochemical interpretation of parabolic relation between the hydrophobicity and the permeability of tetraalkylammonium chlorides. <i>Journal of Electroanalytical Chemistry</i> , 2016, 782, 161-167.	3.8	2
77	Enhanced direct electron transfer-type bioelectrocatalysis of bilirubin oxidase on negatively charged aromatic compound-modified carbon electrode. <i>Journal of Electroanalytical Chemistry</i> , 2016, 763, 104-109.	3.8	72
78	Understanding of the Effects of Ionic Strength on the Bimolecular Rate Constant between Structurally Identified Redox Enzymes and Charged Substrates Using Numerical Simulations on the Basis of the Poisson-Boltzmann Equation. <i>Journal of Physical Chemistry B</i> , 2016, 120, 3122-3128.	2.6	12
79	Significance of the Length of Carbon Nanotubes on the Bioelectrocatalytic Activity of Bilirubin Oxidase for Dioxygen Reduction. <i>Electrochimica Acta</i> , 2016, 192, 133-138.	5.2	27
80	Fabrication and Characterization of Ultrathin-ring Electrodes for Pseudo-steady-state Amperometric Detection. <i>Analytical Sciences</i> , 2015, 31, 603-607.	1.6	9
81	Interconversion between formate and hydrogen carbonate by tungsten-containing formate dehydrogenase-catalyzed mediated bioelectrocatalysis. <i>Sensing and Bio-Sensing Research</i> , 2015, 5, 90-96.	4.2	32
82	Role of 2-mercaptoethanol in direct electron transfer-type bioelectrocatalysis of fructose dehydrogenase at Au electrodes. <i>Electrochimica Acta</i> , 2015, 170, 242-247.	5.2	20
83	Role of a non-ionic surfactant in direct electron transfer-type bioelectrocatalysis by fructose dehydrogenase. <i>Electrochimica Acta</i> , 2015, 152, 19-24.	5.2	22
84	Electrostatic interaction between an enzyme and electrodes in the electric double layer examined in a view of direct electron transfer-type bioelectrocatalysis. <i>Biosensors and Bioelectronics</i> , 2015, 63, 138-144.	10.1	48
85	Influence of Charging Current and Potential Drop on the Propagation of the Change in the Membrane Potential. <i>Electroanalysis</i> , 2014, 26, 1858-1865.	2.9	11
86	Facilitated Transport of Ions and Glucose by Amphotericin B Across Lipid Bilayers in the Presence or Absence of Cholesterol. <i>Electroanalysis</i> , 2014, 26, 625-631.	2.9	2
87	The electron transfer pathway in direct electrochemical communication of fructose dehydrogenase with electrodes. <i>Electrochemistry Communications</i> , 2014, 38, 28-31.	4.7	69
88	Improvement of a direct electron transfer-type fructose/dioxygen biofuel cell with a substrate-modified biocathode. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 4823.	2.8	99
89	Characteristics of fast mediated bioelectrocatalytic reaction near microelectrodes. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 8905-8910.	2.8	14
90	Kinetic Analysis of Inactivation and Enzyme Reaction of Oxygen-Tolerant [NiFe]-Hydrogenase at Direct Electron-Transfer Bioanode. <i>Bulletin of the Chemical Society of Japan</i> , 2014, 87, 1177-1185.	3.2	16

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91	Propagation of the Change in Membrane Potential Owing to the Circulating Current within a Membrane System in Analogy with Neurotransmission. Bulletin of the Chemical Society of Japan, 2014, 87, 110-112.	3.2	12
92	Gas-diffusion and Direct-electron-transfer-type Bioanode for Hydrogen Oxidation with Oxygen-tolerant [NiFe]-hydrogenase as an Electrocatalyst. Chemistry Letters, 2014, 43, 1575-1577.	1.3	17
93	Sensitive d-amino acid biosensor based on oxidase/peroxidase system mediated by pentacyanoferrate-bound polymer. Biosensors and Bioelectronics, 2013, 47, 350-355.	10.1	44
94	Transport of Cesium Ion Across a Bilayer Lipid Membrane and Its Facilitation in the Presence of Iodide Ion. Electroanalysis, 2013, 25, 1823-1826.	2.9	5
95	Potentiometric coulometry based on charge accumulation with a peroxidase/osmium polymer-immobilized electrode for sensitive determination of hydrogen peroxide. Electrochemistry Communications, 2013, 33, 135-137.	4.7	8
96	Diffusion-controlled Detection of Glucose with Microelectrodes in Mediated Bioelectrocatalytic Oxidation. Analytical Sciences, 2013, 29, 279-281.	1.6	15
97	The 16th Forum of Fundamentals of Electrochemistry. Review of Polarography, 2012, 58, 34-34.	0.1	0
98	Analysis of Equilibrium Electrocapillary Curves at the Interface between Hydrophobic Ionic Liquid, Trioctylmethylammonium Bis(nonafluorobutanesulfonyl)amide, and Aqueous Lithium Chloride Solutions. Journal of Chemical & Engineering Data, 2010, 55, 4463-4466.	1.9	9
99	Potential-Dependent Adsorption of Decylsulfate and Decylammonium Prior to the Onset of Electrochemical Instability at the 1,2-Dichloroethane Water Interface. Langmuir, 2009, 25, 8062-8068.	3.5	26
100	Imaging of the Liquid-Liquid Interface under Electrochemical Instability Using Confocal Fluorescence Microscopy. Langmuir, 2009, 25, 10829-10833.	3.5	16