Yuki Kitazumi

List of Publications by Year
in descending order

100	1,880	218677	315739
papers	citations	26 h-index	38 g-index

103	103	103	1081
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Improvement of a direct electron transfer-type fructose/dioxygen biofuel cell with a substrate-modified biocathode. Physical Chemistry Chemical Physics, 2014, 16, 4823.	2.8	99
2	Enhanced direct electron transfer-type bioelectrocatalysis of bilirubin oxidase on negatively charged aromatic compound-modified carbon electrode. Journal of Electroanalytical Chemistry, 2016, 763, 104-109.	3.8	72
3	The electron transfer pathway in direct electrochemical communication of fructose dehydrogenase with electrodes. Electrochemistry Communications, 2014, 38, 28-31.	4.7	69
4	Dual gas-diffusion membrane- and mediatorless dihydrogen/air-breathing biofuel cell operating at room temperature. Journal of Power Sources, 2016, 335, 105-112.	7.8	67
5	Direct electron transfer-type dual gas diffusion H₂/O₂biofuel cells. Journal of Materials Chemistry A, 2016, 4, 8742-8749.	10.3	61
6	Effects of Mesoporous Structures on Direct Electron Transfer-Type Bioelectrocatalysis: Facts and Simulation on a Three-Dimensional Model of Random Orientation of Enzymes. Electrochemistry, 2017, 85, 82-87.	1.4	55
7	Efficient bioelectrocatalytic CO2 reduction on gas-diffusion-type biocathode with tungsten-containing formate dehydrogenase. Electrochemistry Communications, 2016, 73, 85-88.	4.7	54
8	High-Power Formate/Dioxygen Biofuel Cell Based on Mediated Electron Transfer Type Bioelectrocatalysis. ACS Catalysis, 2017, 7, 5668-5673.	11.2	51
9	Electrostatic interaction between an enzyme and electrodes in the electric double layer examined in a view of direct electron transfer-type bioelectrocatalysis. Biosensors and Bioelectronics, 2015, 63, 138-144.	10.1	48
10	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
11	Direct electron transfer-type bioelectrocatalytic interconversion of carbon dioxide/formate and NAD+/NADH redox couples with tungsten-containing formate dehydrogenase. Electrochimica Acta, 2017, 228, 537-544.	5.2	43
12	Bioelectrocatalytic formate oxidation and carbon dioxide reduction at high current density and low overpotential with tungsten-containing formate dehydrogenase and mediators. Electrochemistry Communications, 2016, 65, 31-34.	4.7	42
13	Direct electron transfer-type four-way bioelectrocatalysis of CO2/formate and NAD+/NADH redox couples by tungsten-containing formate dehydrogenase adsorbed on gold nanoparticle-embedded mesoporous carbon electrodes modified with 4-mercaptopyridine. Electrochemistry Communications, 2017, 84, 75-79.	4.7	42
14	Significance of Mesoporous Electrodes for Noncatalytic Faradaic Process of Randomly Oriented Redox Proteins. Journal of Physical Chemistry C, 2016, 120, 26270-26277.	3.1	38
15	Construction of a protein-engineered variant of d -fructose dehydrogenase for direct electron transfer-type bioelectrocatalysis. Electrochemistry Communications, 2017, 77, 112-115.	4.7	38
16	Analysis of factors governing direct electron transfer-type bioelectrocatalysis of bilirubin oxidase at modified electrodes. Journal of Electroanalytical Chemistry, 2016, 783, 316-323.	3.8	37
17	Improved direct electron transfer-type bioelectrocatalysis of bilirubin oxidase using porous gold electrodes. Journal of Electroanalytical Chemistry, 2019, 843, 47-53.	3.8	37
18	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. Electrochemistry Communications, 2016, 67, 43-46.	4.7	34

#	Article	IF	Citations
19	Interconversion between formate and hydrogen carbonate by tungsten-containing formate dehydrogenase-catalyzed mediated bioelectrocatalysis. Sensing and Bio-Sensing Research, 2015, 5, 90-96.	4.2	32
20	Direct Electron Transfer-Type Bioelectrocatalysis of Redox Enzymes at Nanostructured Electrodes. Catalysts, 2020, 10, 236.	3.5	32
21	Diffusion-controlled Mediated Electron Transfer-type Bioelectrocatalysis Using Microband Electrodes as Ultimate Amperometric Glucose Sensors. Analytical Sciences, 2017, 33, 845-851.	1.6	30
22	Direct Electron Transfer-type Bioelectrocatalysis of Peroxidase at Mesoporous Carbon Electrodes and Its Application for Glucose Determination Based on Bienzyme System. Analytical Sciences, 2017, 33, 839-844.	1.6	30
23	Bioelectrocatalytic performance of d-fructose dehydrogenase. Bioelectrochemistry, 2019, 129, 1-9.	4.6	30
24	Ultimate downsizing of d-fructose dehydrogenase for improving the performance of direct electron transfer-type bioelectrocatalysis. Electrochemistry Communications, 2019, 98, 101-105.	4.7	30
25	Development Perspective of Bioelectrocatalysis-Based Biosensors. Sensors, 2020, 20, 4826.	3.8	29
26	Significance of the Length of Carbon Nanotubes on the Bioelectrocatalytic Activity of Bilirubin Oxidase for Dioxygen Reduction. Electrochimica Acta, 2016, 192, 133-138.	5.2	27
27	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
28	Nanostructured Porous Electrodes by the Anodization of Gold for an Application as Scaffolds in Direct-electron-transfer-type Bioelectrocatalysis. Analytical Sciences, 2018, 34, 1317-1322.	1.6	26
29	Construction of photo-driven bioanodes using thylakoid membranes and multi-walled carbon nanotubes. Bioelectrochemistry, 2018, 122, 158-163.	4.6	24
30	Improved direct electron transfer-type bioelectrocatalysis of bilirubin oxidase using thiol-modified gold nanoparticles on mesoporous carbon electrode. Journal of Electroanalytical Chemistry, 2019, 832, 158-164.	3.8	23
31	Diffusion-limited biosensing of dissolved oxygen by direct electron transfer-type bioelectrocatalysis of multi-copper oxidases immobilized on porous gold microelectrodes. Journal of Electroanalytical Chemistry, 2020, 860, 113895.	3.8	23
32	Direct electron transfer-type bioelectrocatalysis of FAD-dependent glucose dehydrogenase using porous gold electrodes and enzymatically implanted platinum nanoclusters. Bioelectrochemistry, 2020, 133, 107457.	4.6	23
33	Role of a non-ionic surfactant in direct electron transfer-type bioelectrocatalysis by fructose dehydrogenase. Electrochimica Acta, 2015, 152, 19-24.	5.2	22
34	Factors affecting the interaction between carbon nanotubes and redox enzymes in direct electron transfer-type bioelectrocatalysis. Bioelectrochemistry, 2017, 118, 70-74.	4.6	22
35	Reactivation of standard [NiFe]-hydrogenase and bioelectrochemical catalysis of proton reduction and hydrogen oxidation in a mediated-electron-transfer system. Bioelectrochemistry, 2018, 123, 156-161.	4.6	22
36	Role of 2-mercaptoethanol in direct electron transfer-type bioelectrocatalysis of fructose dehydrogenase at Au electrodes. Electrochimica Acta, 2015, 170, 242-247.	5.2	20

#	Article	IF	Citations
37	Identification of the binding sites for ubiquinone and inhibitors in the Na+-pumping NADH-ubiquinone oxidoreductase from Vibrio cholerae by photoaffinity labeling. Journal of Biological Chemistry, 2017, 292, 7727-7742.	3.4	19
38	Putrescine oxidase/peroxidase-co-immobilized and mediator-less mesoporous microelectrode for diffusion-controlled steady-state amperometric detection of putrescine. Journal of Electroanalytical Chemistry, 2017, 804, 128-132.	3.8	19
39	Protein-Engineering Improvement of Direct Electron Transfer-Type Bioelectrocatalytic Properties of d-Fructose Dehydrogenase. Electrochemistry, 2019, 87, 47-51.	1.4	18
40	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
41	Imaging of the Liquidâ^'Liquid Interface under Electrochemical Instability Using Confocal Fluorescence Microscopy. Langmuir, 2009, 25, 10829-10833.	3.5	16
42	Kinetic Analysis of Inactivation and Enzyme Reaction of Oxygen-Tolerant [NiFe]-Hydrogenase at Direct Electron-Transfer Bioanode. Bulletin of the Chemical Society of Japan, 2014, 87, 1177-1185.	3.2	16
43	A Bio-solar Cell with Thylakoid Membranes and Bilirubin Oxidase. Chemistry Letters, 2019, 48, 686-689.	1.3	16
44	Diffusion-controlled Detection of Glucose with Microelectrodes in Mediated Bioelectrocatalytic Oxidation. Analytical Sciences, 2013, 29, 279-281.	1.6	15
45	Binder/surfactant-free biocathode with bilirubin oxidase for gas-diffusion-type system. Electrochemistry Communications, 2016, 66, 58-61.	4.7	15
46	Characteristics of fast mediated bioelectrocatalytic reaction near microelectrodes. Physical Chemistry Chemical Physics, 2014, 16, 8905-8910.	2.8	14
47	Construction of a bioelectrochemical formate generating system from carbon dioxide and dihydrogen. Electrochemistry Communications, 2018, 97, 73-76.	4.7	14
48	Simultaneous Detection of Lactate Enantiomers Based on Diffusion-controlled Bioelectrocatalysis. Analytical Sciences, 2018, 34, 1137-1142.	1.6	13
49	Performance analysis of an oxidase/peroxidase-based mediatorless amperometric biosensor. Journal of Electroanalytical Chemistry, 2019, 841, 73-78.	3.8	13
50	Fabrication of a Phosphate Ion Selective Electrode Based on Modified Molybdenum Metal. Analytical Sciences, 2020, 36, 201-205.	1.6	13
51	Recent Progress in Applications of Enzymatic Bioelectrocatalysis. Catalysts, 2020, 10, 1413.	3.5	13
52	Direct electron transfer-type bioelectrocatalysis by membrane-bound aldehyde dehydrogenase from Gluconobacter oxydans and cyanide effects on its bioelectrocatalytic properties. Electrochemistry Communications, 2021, 123, 106911.	4.7	13
53	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
54	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 Poissonâ€“Boltzmann Equation. Journal of Physical Chemistry B, 2016, 120, 3122-3128.	2.6	12

#	Article	IF	Citations
55	Influence of Charging Current and Potential Drop on the Propagation of the Change in the Membrane Potential. Electroanalysis, 2014, 26, 1858-1865.	2.9	11
56	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. Journal of Electroanalytical Chemistry, 2020, 877, 114651.	3.8	11
57	Construction of Nitrate-selective Electrodes and Monitoring of Nitrates in Hydroponic Solutions. Analytical Sciences, 2018, 34, 1373-1377.	1.6	10
58	Automatic Management of Nutrient Solution for Hydroponicsâ€"Construction of Multi-ion Statâ€". Analytical Sciences, 2020, 36, 1141-1144.	1.6	10
59	Multiple electron transfer pathways of tungsten-containing formate dehydrogenase in direct electron transfer-type bioelectrocatalysis. Chemical Communications, 2022, 58, 6478-6481.	4.1	10
60	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
61	Fabrication and Characterization of Ultrathin-ring Electrodes for Pseudo-steady-state Amperometric Detection. Analytical Sciences, 2015, 31, 603-607.	1.6	9
62	Construction of an Automatic Nutrient Solution Management System for Hydroponics-Adjustment of the K+-Concentration and Volume of Water. Analytical Sciences, 2019, 35, 595-598.	1.6	9
63	Effects of Elimination of Î± Helix Regions on Direct Electron Transfer-type Bioelectrocatalytic Properties of Copper Efflux Oxidase. Electrochemistry, 2020, 88, 185-189.	1.4	9
64	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
65	Electrostatic roles in electron transfer from [NiFe] hydrogenase to cytochrome c 3 from Desulfovibrio vulgaris Miyazaki F. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2017, 1865, 481-487.	2.3	8
66	Discussion on Direct Electron Transfer-Type Bioelectrocatalysis of Downsized and Axial-Ligand Exchanged Variants of d-Fructose Dehydrogenase. Electrochemistry, 2020, 88, 195-199.	1.4	8
67	Cyclic voltammetry and electrochemical impedance simulations of the mediator-type enzyme electrode reaction using finite element method. Electrochimica Acta, 2021, 367, 137483.	5.2	8
68	The origin of hyperpolarization based on the directional conduction of action potential using a model nerve cell system. Bioelectrochemistry, 2019, 128, 155-164.	4.6	7
69	Potentiometric coulometry using a liquid-film-modified electrode as a reversible surface-confined system. Journal of Electroanalytical Chemistry, 2016, 780, 114-118.	3.8	6
70	Electrochemical Study on the Extracellular Electron Transfer Pathway from Shewanella Strain Hac319 to Electrodes. Analytical Sciences, 2018, 34, 1177-1182.	1.6	6
71	Carbon-nanotube-caged microbial electrodes for bioelectrocatalysis. Enzyme and Microbial Technology, 2018, 117, 41-44.	3.2	6
72	Significance of Nano-Structures of Carbon Materials for Direct-Electron-Transfer-type Bioelectrocatalysis of Bilirubin Oxidase. Electrochemistry, 2020, 88, 374-379.	1.4	6

#	Article	IF	Citations
73	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
74	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) —. Bunseki Kagaku, 2016, 65, 249-258.	0.2	4
75	A model of the potential-dependent adsorption of charged redox-active species at the electrode surface. Electrochimica Acta, 2018, 259, 542-551.	5.2	4
76	Electrochemical pH sensor based on a hydrogen-storage palladium electrode with Teflon covering to increase stability. Electrochemistry Communications, 2019, 101, 73-77.	4.7	4
77	Cyanide sensitivity in direct electron transfer-type bioelectrocatalysis by membrane-bound alcohol dehydrogenase from Gluconobacter oxydans. Bioelectrochemistry, 2021, 143, 107992.	4.6	4
78	Coupling of Proton Transport across Planar Lipid Bilayer and Electron Transport Catalyzed by Membrane-bound Enzyme D-Fructose Dehydrogenase. Electrochemistry, 2016, 84, 328-333.	1.4	3
79	Inhibition of Ion Transport through Gramicidin A Channels by the Addition of Local Anesthetic Procaine. Electroanalysis, 2018, 30, 304-309.	2.9	3
80	Rapid Fabrication of Nanoporous Gold as a Suitable Platform for the Direct Electron Transfer-type Bioelectrocatalysis of Bilirubin Oxidase. Electrochemistry, 2020, 88, 444-446.	1.4	3
81	Effects of N-linked glycans of bilirubin oxidase on direct electron transfer-type bioelectrocatalysis. Bioelectrochemistry, 2022, 146, 108141.	4.6	3
82	Facilitated Transport of Ions and Glucose by Amphotericin B Across Lipid Bilayers in the Presence or Absence of Cholesterol. Electroanalysis, 2014, 26, 625-631.	2.9	2
83	Electrochemical interpretation of parabolic relation between the hydrophobicity and the permeability of tetraalkylammonium chlorides. Journal of Electroanalytical Chemistry, 2016, 782, 161-167.	3.8	2
84	Permselectivity of Gramicidin A Channels Based on Singleâ€channel Recordings. Electroanalysis, 2020, 32, 1093-1099.	2.9	2
85	Enhancement of the Direct Electron Transfer-type Bioelectrocatalysis of Bilirubin Oxidase at the Interface between Carbon Particles. Electrochemistry, 2021, 89, 43-48.	1.4	2
86	Pollution Control of Nitrate-selective Membrane by the Inner Solution and On-site Monitoring of Nitrate Concentration in Soil. Analytical Sciences, 2021, 37, 887-891.	1.6	2
87	Improvement in the Power Output of a Reverse Electrodialysis System by the Addition of Poly(sodium) Tj ETQq1 1 0.784314 rgBT /Ove	1.4	2
88	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
89	Severe Problems of the Voltageâ€Clamp Method in Concurrent Monitoring of Membrane Potentials. Electroanalysis, 2022, 34, 1299-1307.	2.9	2
90	Electroanalytical Chemistry Based on the Theories of an Electrical Double Layer and a Reaction-diffusion Layer. Bunseki Kagaku, 2018, 67, 387-395.	0.2	1

#	Article	IF	Citations
91	The Redox Potential Measurements for Heme Moieties in Variants of D-Fructose Dehydrogenase Based on Mediator-assisted Potentiometric Titration. Electrochemistry, 2021, 89, 337-339.	1.4	1
92	Applications to Biosensors. , 2021, , 105-114.		1
93	Inhibition of direct-electron-transfer-type bioelectrocatalysis of bilirubin oxidase by silver ions. Analytical Sciences, 2022, , 1.	1.6	1
94	The 16th Forum of Fundamentals of Electrochemistry. Review of Polarography, 2012, 58, 34-34.	0.1	0
95	Significance of Nanostructures of an Electrode Surface in Direct Electron Transfer-Type Bioelectrocatalysis of Redox Enzymes. ACS Symposium Series, 2020, , 147-163.	0.5	0
96	Characteristic Properties of Redox Enzymes as Electrocatalysts. , 2021, , 79-91.		0
97	Protein-Engineering Approach for Improvement of DET-Type Bioelectrocatalytic Performance. , 2021, , 93-104.		0
98	Development of Electrochemical Sensors for Nutrient Components. Bunseki Kagaku, 2021, 70, 501-510.	0.2	0
99	Kinetic Analysis of Oxygen Dissolution by Bubble-attaching Electrodes. Bunseki Kagaku, 2021, 70, 551-555.	0.2	0
100	Ion transport across bilayer lipid membranes in the presence of tetraphenylborate. Analytical Sciences, 2022, , 1.	1.6	0