Shigeru Amemiya

List of Publications by Year
in descending order

79	5,148	76196	88477
papers	citations	40 h-index	70 g-index

83	83	83	3500
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Potentiometric Selectivity Coefficients of Ion-Selective Electrodes. Part I. Inorganic Cations (Technical Report). Pure and Applied Chemistry, 2000, 72, 1851-2082.	0.9	923
2	Scanning Electrochemical Microscopy. Annual Review of Analytical Chemistry, 2008, 1, 95-131.	2.8	381
3	A Chloride Ion-Selective Solvent Polymeric Membrane Electrode Based on a Hydrogen Bond Forming Ionophore. Analytical Chemistry, 1997, 69, 1038-1044.	3.2	160
4	Biological applications of scanning electrochemical microscopy: chemical imaging of single living cells and beyond. Analytical and Bioanalytical Chemistry, 2006, 386, 458-471.	1.9	123
5	High Lipophilicity of Perfluoroalkyl Carboxylate and Sulfonate: Implications for Their Membrane Permeability. Journal of the American Chemical Society, 2009, 131, 2290-2296.	6.6	122
6	Voltammetric Heparin-Selective Electrode Based on Thin Liquid Membrane with Conducting Polymer-Modified Solid Support. Analytical Chemistry, 2006, 78, 6893-6902.	3.2	121
7	Stripping Analysis of Nanomolar Perchlorate in Drinking Water with a Voltammetric Ion-Selective Electrode Based on Thin-Layer Liquid Membrane. Analytical Chemistry, 2008, 80, 6056-6065.	3.2	115
8	Origins of Nanoscale Damage to Glass-Sealed Platinum Electrodes with Submicrometer and Nanometer Size. Analytical Chemistry, 2013, 85, 6198-6202.	3.2	104
9	Studies of charge transfer at liquid|liquid interfaces and bilayer lipid membranes by scanning electrochemical microscopy. Journal of Electroanalytical Chemistry, 2000, 483, 7-17.	1.9	100
10	Scanning Electrochemical Microscopy. 40. Voltammetric Ion-Selective Micropipet Electrodes for Probing Ion Transfer at Bilayer Lipid Membranes. Analytical Chemistry, 2000, 72, 4940-4948.	3.2	99
11	Origin of Non-Nernstian Anion Response Slopes of Metalloporphyrin-Based Liquid/Polymer Membrane Electrodes. Analytical Chemistry, 2000, 72, 5766-5773.	3.2	98
12	Voltammetry of the Phase Transfer of Polypeptide Protamines across Polarized Liquid/Liquid Interfaces. Journal of the American Chemical Society, 2003, 125, 11832-11833.	6.6	98
13	Water Protects Graphitic Surface from Airborne Hydrocarbon Contamination. ACS Nano, 2016, 10, 349-359.	7.3	97
14	Cyclic Voltammetry at Micropipet Electrodes for the Study of Ion-Transfer Kinetics at Liquid/Liquid Interfaces. Analytical Chemistry, 2007, 79, 9276-9285.	3.2	87
15	Permeability of the Nuclear Envelope at Isolated Xenopus Oocyte Nuclei Studied by Scanning Electrochemical Microscopy. Analytical Chemistry, 2005, 77, 2147-2156.	3.2	85
16	Quantitative Imaging of Ion Transport through Single Nanopores by High-Resolution Scanning Electrochemical Microscopy. Journal of the American Chemical Society, 2012, 134, 9856-9859.	6.6	83
17	Scanning Electrochemical Microscopy. 41. Theory and Characterization of Ring Electrodes. Analytical Chemistry, 2001, 73, 2261-2267.	3.2	80
18	Organic Contamination of Highly Oriented Pyrolytic Graphite As Studied by Scanning Electrochemical Microscopy. Analytical Chemistry, 2015, 87, 4836-4843.	3.2	78

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19	Kinetic Study of Rapid Transfer of Tetraethylammonium at the 1,2-Dichloroethane/Water Interface by Nanopipet Voltammetry of Common Ions. Analytical Chemistry, 2010, 82, 77-83.	3.2	77
20	Nanoscale Mechanism of Molecular Transport through the Nuclear Pore Complex As Studied by Scanning Electrochemical Microscopy. Journal of the American Chemical Society, 2013, 135, 2321-2329.	6.6	76
21	Quasi-Steady-State Voltammetry of Rapid Electron Transfer Reactions at the Macroscopic Substrate of the Scanning Electrochemical Microscope. Analytical Chemistry, 2011, 83, 828-835.	3.2	74
22	Stabilizing Nanometer Scale Tip-to-Substrate Gaps in Scanning Electrochemical Microscopy Using an Isothermal Chamber for Thermal Drift Suppression. Analytical Chemistry, 2012, 84, 3489-3492.	3.2	74
23	Co-Ion Interference for Ion-Selective Electrodes Based on Charged and Neutral Ionophores:â€‰ A Comparison. Analytical Chemistry, 1998, 70, 4291-4303.	3.2	72
24	Voltammetric Detection of Heparin at Polarized Blood Plasma/1,2-Dichloroethane Interfaces. Analytical Chemistry, 2005, 77, 5711-5719.	3.2	72
25	Facilitated Protamine Transfer at Polarized Water/1,2-Dichloroethane Interfaces Studied by Cyclic Voltammetry and Chronoamperometry at Micropipet Electrodes. Analytical Chemistry, 2004, 76, 6877-6886.	3.2	71
26	Scanning Electrochemical Microscopy. 38. Application of SECM to the Study of Charge Transfer through Bilayer Lipid Membranes. Analytical Chemistry, 1999, 71, 4300-4305.	3.2	68
27	Ion-Selective Permeability of an Ultrathin Nanoporous Silicon Membrane as Probed by Scanning Electrochemical Microscopy Using Micropipet-Supported ITIES Tips. Analytical Chemistry, 2010, 82, 7127-7134.	3.2	68
28	A Phase Boundary Potential Model for Apparently â€œTwice-Nernstianâ€•Responses of Liquid Membrane Ion-Selective Electrodes. Analytical Chemistry, 1998, 70, 445-454.	3.2	67
29	Chemical Sensing with Chemically Modified Electrodes that Mimic Gating at Biomembranes Incorporating Ion-Channel Receptors. Electroanalysis, 1998, 10, 1149-1158.	1.5	63
30	Probing Heterogeneous Electron Transfer at an Unbiased Conductor by Scanning Electrochemical Microscopy in the Feedback Mode. Analytical Chemistry, 2007, 79, 2735-2744.	3.2	63
31	Subnanomolar Ion Detection by Stripping Voltammetry with Solid-Supported Thin Polymeric Membrane. Analytical Chemistry, 2009, 81, 7262-7270.	3.2	57
32	Electrochemical Mechanism of Ionâ€“Ionophore Recognition at Plasticized Polymer Membrane/Water Interfaces. Journal of the American Chemical Society, 2011, 133, 16300-16308.	6.6	57
33	Nanopipet Voltammetry of Common Ions across the Liquidâ^'Liquid Interface. Theory and Limitations in Kinetic Analysis of Nanoelectrode Voltammograms. Analytical Chemistry, 2010, 82, 84-90.	3.2	55
34	Scanning Electrochemical Microscopy of Individual Single-Walled Carbon Nanotubes. Analytical Chemistry, 2010, 82, 1605-1607.	3.2	55
35	Electrochemical heparin sensing at liquid/liquid interfaces and polymeric membranes. Analytical and Bioanalytical Chemistry, 2011, 399, 571-579.	1.9	55
36	Stripping Voltammetry of Nanomolar Potassium and Ammonium Ions Using a Valinomycin-Doped Double-Polymer Electrode. Analytical Chemistry, 2012, 84, 7979-7986.	3.2	54

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37	A Structureâ^'Permeability Relationship of Ultrathin Nanoporous Silicon Membrane:â€‰ A Comparison with the Nuclear Envelope. Journal of the American Chemical Society, 2008, 130, 4230-4231.	6.6	52
38	Electrochemical sensing and imaging based on ion transfer at liquid/liquid interfaces. Electrochimica Acta, 2013, 110, 836-845.	2.6	52
39	Ultrafast Electron Transfer Kinetics of Graphene Grown by Chemical Vapor Deposition. Angewandte Chemie - International Edition, 2015, 54, 15134-15137.	7.2	49
40	Focused-Ion-Beam-Milled Carbon Nanoelectrodes for Scanning Electrochemical Microscopy. Journal of the Electrochemical Society, 2016, 163, H3032-H3037.	1.3	45
41	A Generalized Model for Apparently â€œNon-Nernstianâ€•Equilibrium Responses of Ionophore-Based Ion-Selective Electrodes. 1. Independent Complexation of the Ionophore with Primary and Secondary Ions. Analytical Chemistry, 2003, 75, 3329-3339.	3.2	42
42	Ion-Transfer Voltammetry of Perfluoroalkanesulfonates and Perfluoroalkanecarboxylates: Picomolar Detection Limit and High Lipophilicity. Analytical Chemistry, 2014, 86, 11230-11237.	3.2	41
43	Ion Permeability of the Nuclear Pore Complex and Ion-Induced Macromolecular Permeation as Studied by Scanning Electrochemical and Fluorescence Microscopy. Analytical Chemistry, 2014, 86, 2090-2098.	3.2	41
44	Chronoamperometry at Micropipet Electrodes for Determination of Diffusion Coefficients and Transferred Charges at Liquid/Liquid Interfaces. Analytical Chemistry, 2004, 76, 5570-5578.	3.2	40
45	Electrochemical Recognition of Synthetic Heparin Mimetic at Liquid/Liquid Microinterfaces. Journal of the American Chemical Society, 2008, 130, 7436-7442.	6.6	38
46	Subnanomolar Detection Limit of Stripping Voltammetric Ca²⁺-Selective Electrode: Effects of Analyte Charge and Sample Contamination. Analytical Chemistry, 2014, 86, 7939-7946.	3.2	36
47	Origin of Asymmetry of Paired Nanogap Voltammograms Based on Scanning Electrochemical Microscopy: Contamination Not Adsorption. Analytical Chemistry, 2016, 88, 8323-8331.	3.2	33
48	Local Feedback Mode of Scanning Electrochemical Microscopy for Electrochemical Characterization of One-Dimensional Nanostructure:Â Theory and Experiment with Nanoband Electrode as Model Substrate. Analytical Chemistry, 2006, 78, 1946-1957.	3.2	32
49	Voltammetric Mechanism of Multiion Detection with Thin Ionophore-Based Polymeric Membrane. Analytical Chemistry, 2016, 88, 5827-5834.	3.2	32
50	Fabrication and characterization of conical microelectrode probes templated by selectively etched optical fibers for scanning electrochemical microscopy. Electrochemistry Communications, 2004, 6, 615-620.	2.3	30
51	Generalized Theory for Nanoscale Voltammetric Measurements of Heterogeneous Electron-Transfer Kinetics at Macroscopic Substrates by Scanning Electrochemical Microscopy. Analytical Chemistry, 2011, 83, 5928-5935.	3.2	30
52	Scanning Electrochemical Microscopy of Carbon Nanomaterials and Graphite. Accounts of Chemical Research, 2016, 49, 2007-2014.	7.6	29
53	Voltammetric Extraction of Heparin and Low-Molecular-Weight Heparin across 1,2-Dichloroethane/Water Interfaces. Langmuir, 2009, 25, 13653-13660.	1.6	28
54	Potentiometric Ion-Selective Electrodes. , 2007, , 261-294.		26

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55	Characterization of Nanopipet-Supported ITIES Tips for Scanning Electrochemical Microscopy of Single Solid-State Nanopores. Analytical Chemistry, 2017, 89, 9946-9952.	3.2	24
56	In Situ Detection of the Adsorbed Fe(II) Intermediate and the Mechanism of Magnetite Electrodeposition by Scanning Electrochemical Microscopy. Journal of the American Chemical Society, 2017, 139, 15891-15899.	6.6	23
57	Ultraflat, Pristine, and Robust Carbon Electrode for Fast Electron-Transfer Kinetics. Analytical Chemistry, 2017, 89, 13532-13540.	3.2	22
58	Voltammetric Measurement of Adsorption Isotherm for Ferrocene Derivatives on Highly Oriented Pyrolytic Graphite. Analytical Chemistry, 2018, 90, 13632-13639.	3.2	21
59	Spatially Resolved Detection of a Nanometer-Scale Gap by Scanning Electrochemical Microscopy. Analytical Chemistry, 2009, 81, 4788-4791.	3.2	19
60	Double-Polymer-Modified Pencil Lead for Stripping Voltammetry of Perchlorate in Drinking Water. Journal of Chemical Education, 2012, 89, 1323-1326.	1.1	19
61	Voltammetric Characterization of Ionâ€“Ionophore Complexation Using Thin Polymeric Membranes: Asymmetric Thin-Layer Responses. Analytical Chemistry, 2015, 87, 8564-8572.	3.2	19
62	Self-Inhibitory Electron Transfer of the Co(III)/Co(II)-Complex Redox Couple at Pristine Carbon Electrode. Analytical Chemistry, 2018, 90, 11115-11123.	3.2	19
63	Scanning electrochemical microscopy of one-dimensional nanostructure: Effects of nanostructure dimensions on the tip feedback current under unbiased conditions. Journal of Electroanalytical Chemistry, 2009, 629, 78-86.	1.9	18
64	Channel Mimetic Sensing Membranes for Nucleotides Based on Multitopic Hydrogen Bonding. Israel Journal of Chemistry, 1997, 37, 267-275.	1.0	17
65	Extraction or Adsorption? Voltammetric Assessment of Protamine Transfer at Ionophore-Based Polymeric Membranes. Analytical Chemistry, 2015, 87, 5348-5355.	3.2	16
66	Voltammetric Ion Selectivity of Thin Ionophore-Based Polymeric Membranes: Kinetic Effect of Ion Hydrophilicity. Analytical Chemistry, 2016, 88, 8893-8901.	3.2	14
67	Adsorption and Electronâ€Transfer Mechanisms of Ferrocene Carboxylates and Sulfonates at Highly Oriented Pyrolytic Graphite. ChemElectroChem, 2019, 6, 5651-5660.	1.7	14
68	Comment on â€œImpact of Adsorption on Scanning Electrochemical Microscopy Voltammetry and Implications for Nanogap Measurementsâ€: Assessment of Heterogeneous Self-Exchange Reaction at Conductor and Insulator. Analytical Chemistry, 2017, 89, 7269-7272.	3.2	13
69	Probing High Permeability of Nuclear Pore Complexes by Scanning Electrochemical Microscopy: Ca²⁺ Effects on Transport Barriers. Analytical Chemistry, 2019, 91, 5446-5454.	3.2	11
70	Nanoscale Scanning Electrochemical Microscopy. Electroanalytical Chemistry, A Series of Advances, 2015, , 1-72.	1.7	10
71	Nanogap-Based Electrochemical Measurements at Double-Carbon-Fiber Ultramicroelectrodes. Analytical Chemistry, 2018, 90, 11746-11750.	3.2	9
72	Nanoscale Intelligent Imaging Based on Real-Time Analysis of Approach Curve by Scanning Electrochemical Microscopy. Analytical Chemistry, 2019, 91, 10227-10235.	3.2	9

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73	Simultaneous Intelligent Imaging of Nanoscale Reactivity and Topography by Scanning Electrochemical Microscopy. Analytical Chemistry, 2021, 93, 8906-8914.	3.2	8
74	Simulation of Fast-Scan Nanogap Voltammetry at Double-Cylinder Ultramicroelectrodes. Journal of the Electrochemical Society, 2018, 165, G3026-G3032.	1.3	7
75	Nanoscale electrostatic gating of molecular transport through nuclear pore complexes as probed by scanning electrochemical microscopy. Chemical Science, 2019, 10, 7929-7936.	3.7	6
76	Perspectiveâ€"Beyond the Century-Long Paradigm of Hydrogen Electrochemistry through the Laviron–Amatore Paradox. Journal of the Electrochemical Society, 2020, 167, 146514.	1.3	6
77	Nanoelectrochemical Study of Molecular Transport through the Nuclear Pore Complex. Chemical Record, 2021, 21, 1430-1441.	2.9	3
78	Real-Time Modulation of Hydrogen Evolution Activity of Graphene Electrodes Using Mechanical Strain. ACS Applied Materials & Interfaces, 2022, 14, 10691-10700.	4.0	2
79	Chemical Sensing with Chemically Modified Electrodes that Mimic Gating at Biomembranes Incorporating Ion-Channel Receptors. , 0, .		1