

Leslie A Sombers

List of Publications by Year in descending order

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47
papers

2,734
citations

186265

28
h-index

233421

45
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docs citations

47
times ranked

2744
citing authors

#	ARTICLE	IF	CITATIONS
1	Simultaneous Measurement of Striatal Dopamine and Hydrogen Peroxide Transients Associated with L-DOPA Induced Rotation in Hemiparkinsonian Rats. <i>ACS Measurement Science Au</i> , 2022, 2, 120-131.	4.4	2
2	Neurotransmitter Readily Escapes Detection at the Opposing Microelectrode Surface in Typical Amperometric Measurements of Exocytosis at Single Cells. <i>Analytical Chemistry</i> , 2022, 94, 9548-9556.	6.5	8
3	Fast-Scan Voltammetry for In Vivo Measurements of Neurochemical Dynamics. <i>NeuroMethods</i> , 2021, , 93-123.	0.3	3
4	Simultaneous voltammetric detection of glucose and lactate fluctuations in rat striatum evoked by electrical stimulation of the midbrain. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 6611-6624.	3.7	18
5	Carbon-Fiber Nanoelectrodes for Real-Time Discrimination of Vesicle Cargo in the Native Cellular Environment. <i>ACS Nano</i> , 2020, 14, 2917-2926.	14.6	42
6	Interpreting Dynamic Interfacial Changes at Carbon Fiber Microelectrodes Using Electrochemical Impedance Spectroscopy. <i>Langmuir</i> , 2020, 36, 4214-4223.	3.5	11
7	Drift Subtraction for Fast-Scan Cyclic Voltammetry Using Double-Waveform Partial-Least-Squares Regression. <i>Analytical Chemistry</i> , 2019, 91, 7319-7327.	6.5	33
8	Characterization of a Multiple-Scan-Rate Voltammetric Waveform for Real-Time Detection of Met-Enkephalin. <i>ACS Chemical Neuroscience</i> , 2019, 10, 2022-2032.	3.5	40
9	NMDA Receptor-Dependent Cholinergic Modulation of Mesolimbic Dopamine Cell Bodies: Neurochemical and Behavioral Studies. <i>ACS Chemical Neuroscience</i> , 2019, 10, 1497-1505.	3.5	7
10	Local μ -Opioid Receptor Antagonism Blunts Evoked Phasic Dopamine Release in the Nucleus Accumbens of Rats. <i>ACS Chemical Neuroscience</i> , 2019, 10, 1935-1940.	3.5	8
11	Quantitative Comparison of Enzyme Immobilization Strategies for Glucose Biosensing in Real-Time Using Fast-Scan Cyclic Voltammetry Coupled with Carbon-Fiber Microelectrodes. <i>ChemPhysChem</i> , 2018, 19, 1197-1204.	2.1	16
12	Electrochemical Selectivity Achieved Using a Double Voltammetric Waveform and Partial Least Squares Regression: Differentiating Endogenous Hydrogen Peroxide Fluctuations from Shifts in pH. <i>Analytical Chemistry</i> , 2018, 90, 1767-1776.	6.5	18
13	Fast-Scan Cyclic Voltammetry: Chemical Sensing in the Brain and Beyond. <i>Analytical Chemistry</i> , 2018, 90, 490-504.	6.5	122
14	Selective and Mechanically Robust Sensors for Electrochemical Measurements of Real-Time Hydrogen Peroxide Dynamics in Vivo. <i>Analytical Chemistry</i> , 2018, 90, 888-895.	6.5	44
15	Carbon-Fiber Microbiosensor for Monitoring Rapid Lactate Fluctuations in Brain Tissue Using Fast-Scan Cyclic Voltammetry. <i>Analytical Chemistry</i> , 2018, 90, 12994-12999.	6.5	27
16	Reducing Data Density in Fast-Scan Cyclic Voltammetry Measurements of Dopamine Dynamics. <i>Journal of the Electrochemical Society</i> , 2018, 165, G3042-G3050.	2.9	3
17	Simultaneous Voltammetric Measurements of Glucose and Dopamine Demonstrate the Coupling of Glucose Availability with Increased Metabolic Demand in the Rat Striatum. <i>ACS Chemical Neuroscience</i> , 2017, 8, 272-280.	3.5	38
18	Background Signal as an in Situ Predictor of Dopamine Oxidation Potential: Improving Interpretation of Fast-Scan Cyclic Voltammetry Data. <i>ACS Chemical Neuroscience</i> , 2017, 8, 411-419.	3.5	24

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19	Spectroelectrochemical Characterization of the Dynamic Carbon-Fiber Surface in Response to Electrochemical Conditioning. <i>Langmuir</i> , 2017, 33, 7838-7846.	3.5	19
20	Unmasking the Effects of L-DOPA on Rapid Dopamine Signaling with an Improved Approach for Nafion Coating Carbon-Fiber Microelectrodes. <i>Analytical Chemistry</i> , 2016, 88, 8129-8136.	6.5	41
21	The Hydroxyl Radical is a Critical Intermediate in the Voltammetric Detection of Hydrogen Peroxide. <i>Journal of the American Chemical Society</i> , 2016, 138, 2516-2519.	13.7	77
22	ENZYME-BASED MICROBIOSENSORS FOR SELECTIVE QUANTIFICATION OF RAPID MOLECULAR FLUCTUATIONS IN BRAIN TISSUE. , 2015, , 137-160.		0
23	Multiple Scan Rate Voltammetry for Selective Quantification of Real-Time Enkephalin Dynamics. <i>Analytical Chemistry</i> , 2014, 86, 7806-7812.	6.5	43
24	Peroxygenase and Oxidase Activities of Dehaloperoxidase-Hemoglobin from <i>Amphitrite ornata</i> . <i>Journal of the American Chemical Society</i> , 2014, 136, 7914-7925.	13.7	41
25	Reducing the Sampling Rate of Biochemical Measurements Using Fast-Scan Cyclic Voltammetry for In Vivo Applications. <i>IEEE Sensors Journal</i> , 2014, 14, 2975-2980.	4.7	9
26	Real-Time Chemical Measurements of Dopamine Release in the Brain. <i>Methods in Molecular Biology</i> , 2013, 964, 275-294.	0.9	38
27	Carbon Nanotube Yarn Electrodes for Enhanced Detection of Neurotransmitter Dynamics in Live Brain Tissue. <i>ACS Nano</i> , 2013, 7, 7864-7873.	14.6	125
28	Quantitation of Hydrogen Peroxide Fluctuations and Their Modulation of Dopamine Dynamics in the Rat Dorsal Striatum Using Fast-Scan Cyclic Voltammetry. <i>ACS Chemical Neuroscience</i> , 2013, 4, 782-789.	3.5	78
29	Enzyme-Modified Carbon-Fiber Microelectrode for the Quantification of Dynamic Fluctuations of Nonelectroactive Analytes Using Fast-Scan Cyclic Voltammetry. <i>Analytical Chemistry</i> , 2013, 85, 8780-8786.	6.5	48
30	In Situ Electrode Calibration Strategy for Voltammetric Measurements In Vivo. <i>Analytical Chemistry</i> , 2013, 85, 11568-11575.	6.5	63
31	Sources contributing to the average extracellular concentration of dopamine in the nucleus accumbens. <i>Journal of Neurochemistry</i> , 2012, 121, 252-262.	3.9	115
32	Trace metal complexation by the triscatecholate siderophore protochelin: structure and stability. <i>BioMetals</i> , 2012, 25, 393-412.	4.1	35
33	Comparison of electrode materials for the detection of rapid hydrogen peroxide fluctuations using background-subtracted fast scan cyclic voltammetry. <i>Analyst</i> , The, 2011, 136, 3550.	3.5	31
34	Specific Oxygen-Containing Functional Groups on the Carbon Surface Underlie an Enhanced Sensitivity to Dopamine at Electrochemically Pretreated Carbon Fiber Microelectrodes. <i>Langmuir</i> , 2010, 26, 9116-9122.	3.5	93
35	Voltammetric Detection of Hydrogen Peroxide at Carbon Fiber Microelectrodes. <i>Analytical Chemistry</i> , 2010, 82, 5205-5210.	6.5	186
36	Synaptic Overflow of Dopamine in the Nucleus Accumbens Arises from Neuronal Activity in the Ventral Tegmental Area. <i>Journal of Neuroscience</i> , 2009, 29, 1735-1742.	3.6	201

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37	Dopamine Detection with Fast-Scan Cyclic Voltammetry Used with Analog Background Subtraction. <i>Analytical Chemistry</i> , 2008, 80, 4040-4048.	6.5	121
38	Phasic Dopamine Release Evoked by Abused Substances Requires Cannabinoid Receptor Activation. <i>Journal of Neuroscience</i> , 2007, 27, 791-795.	3.6	334
39	High Osmolarity and L -DOPA Augment Release via the Fusion Pore in PC12 Cells. <i>ChemPhysChem</i> , 2007, 8, 2471-2477.	2.1	13
40	Dopamine release is heterogeneous within microenvironments of the rat nucleus accumbens. <i>European Journal of Neuroscience</i> , 2007, 26, 2046-2054.	2.6	155
41	Multicore Vesicles: Hyperosmolarity and L-DOPA Induce Homotypic Fusion of Dense Core Vesicles. <i>Cellular and Molecular Neurobiology</i> , 2007, 27, 681-685.	3.3	5
42	Loaded dopamine is preferentially stored in the halo portion of PC12 cell dense core vesicles. <i>Journal of Neurochemistry</i> , 2005, 93, 1122-1131.	3.9	47
43	Correlation between Vesicle Quantal Size and Fusion Pore Release in Chromaffin Cell Exocytosis. <i>Biophysical Journal</i> , 2005, 88, 4411-4420.	0.5	86
44	The Effects of Vesicular Volume on Secretion through the Fusion Pore in Exocytotic Release from PC12 Cells. <i>Journal of Neuroscience</i> , 2004, 24, 303-309.	3.6	123
45	Artificial cells: Unique insights into exocytosis using liposomes and lipid nanotubes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 400-404.	7.1	122
46	Differentiated PC12 Cells. <i>Annals of the New York Academy of Sciences</i> , 2002, 971, 86-88.	3.8	21
47	Electrochemical Monitoring of Exocytosis from Individual PC12 Cells in Culture. , 2002, , 25-73.		0