Leslie A Sombers

List of Publications by Year
in descending order

47 papers	2,734 citations	186265 28 h-index	233421 45 g-index
47 all docs	47 docs citations	47 times ranked	2744 citing authors

#	Article	IF	Citations
1	Phasic Dopamine Release Evoked by Abused Substances Requires Cannabinoid Receptor Activation. Journal of Neuroscience, 2007, 27, 791-795.	3.6	334
2	Synaptic Overflow of Dopamine in the Nucleus Accumbens Arises from Neuronal Activity in the Ventral Tegmental Area. Journal of Neuroscience, 2009, 29, 1735-1742.	3.6	201
3	Voltammetric Detection of Hydrogen Peroxide at Carbon Fiber Microelectrodes. Analytical Chemistry, 2010, 82, 5205-5210.	6.5	186
4	Dopamine release is heterogeneous within microenvironments of the rat nucleus accumbens. European Journal of Neuroscience, 2007, 26, 2046-2054.	2.6	155
5	Carbon Nanotube Yarn Electrodes for Enhanced Detection of Neurotransmitter Dynamics in Live Brain Tissue. ACS Nano, 2013, 7, 7864-7873.	14.6	125
6	The Effects of Vesicular Volume on Secretion through the Fusion Pore in Exocytotic Release from PC12 Cells. Journal of Neuroscience, 2004, 24, 303-309.	3.6	123
7	Artificial cells: Unique insights into exocytosis using liposomes and lipid nanotubes. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 400-404.	7.1	122
8	Fast-Scan Cyclic Voltammetry: Chemical Sensing in the Brain and Beyond. Analytical Chemistry, 2018, 90, 490-504.	6.5	122
9	Dopamine Detection with Fast-Scan Cyclic Voltammetry Used with Analog Background Subtraction. Analytical Chemistry, 2008, 80, 4040-4048.	6.5	121
10	Sources contributing to the average extracellular concentration of dopamine in the nucleus accumbens. Journal of Neurochemistry, 2012, 121, 252-262.	3.9	115
11	Specific Oxygen-Containing Functional Groups on the Carbon Surface Underlie an Enhanced Sensitivity to Dopamine at Electrochemically Pretreated Carbon Fiber Microelectrodes. Langmuir, 2010, 26, 9116-9122.	3.5	93
12	Correlation between Vesicle Quantal Size and Fusion Pore Release in Chromaffin Cell Exocytosis. Biophysical Journal, 2005, 88, 4411-4420.	0.5	86
13	Quantitation of Hydrogen Peroxide Fluctuations and Their Modulation of Dopamine Dynamics in the Rat Dorsal Striatum Using Fast-Scan Cyclic Voltammetry. ACS Chemical Neuroscience, 2013, 4, 782-789.	3.5	78
14	The Hydroxyl Radical is a Critical Intermediate in the Voltammetric Detection of Hydrogen Peroxide. Journal of the American Chemical Society, 2016, 138, 2516-2519.	13.7	77
15	In Situ Electrode Calibration Strategy for Voltammetric Measurements In Vivo. Analytical Chemistry, 2013, 85, 11568-11575.	6.5	63
16	Enzyme-Modified Carbon-Fiber Microelectrode for the Quantification of Dynamic Fluctuations of Nonelectroactive Analytes Using Fast-Scan Cyclic Voltammetry. Analytical Chemistry, 2013, 85, 8780-8786.	6.5	48
17	Loaded dopamine is preferentially stored in the halo portion of PC12 cell dense core vesicles. Journal of Neurochemistry, 2005, 93, 1122-1131.	3.9	47
18	Selective and Mechanically Robust Sensors for Electrochemical Measurements of Real-Time Hydrogen Peroxide Dynamics in Vivo. Analytical Chemistry, 2018, 90, 888-895.	6.5	44

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19	Multiple Scan Rate Voltammetry for Selective Quantification of Real-Time Enkephalin Dynamics. Analytical Chemistry, 2014, 86, 7806-7812.	6.5	43
20	Carbon-Fiber Nanoelectrodes for Real-Time Discrimination of Vesicle Cargo in the Native Cellular Environment. ACS Nano, 2020, 14, 2917-2926.	14.6	42
21	Peroxygenase and Oxidase Activities of Dehaloperoxidase-Hemoglobin from Amphitrite ornata. Journal of the American Chemical Society, 2014, 136, 7914-7925.	13.7	41
22	Unmasking the Effects of L-DOPA on Rapid Dopamine Signaling with an Improved Approach for Nafion Coating Carbon-Fiber Microelectrodes. Analytical Chemistry, 2016, 88, 8129-8136.	6.5	41
23	Characterization of a Multiple-Scan-Rate Voltammetric Waveform for Real-Time Detection of Met-Enkephalin. ACS Chemical Neuroscience, 2019, 10, 2022-2032.	3.5	40
24	Real-Time Chemical Measurements of Dopamine Release in the Brain. Methods in Molecular Biology, 2013, 964, 275-294.	0.9	38
25	Simultaneous Voltammetric Measurements of Glucose and Dopamine Demonstrate the Coupling of Glucose Availability with Increased Metabolic Demand in the Rat Striatum. ACS Chemical Neuroscience, 2017, 8, 272-280.	3.5	38
26	Trace metal complexation by the triscatecholate siderophore protochelin: structure and stability. BioMetals, 2012, 25, 393-412.	4.1	35
27	Drift Subtraction for Fast-Scan Cyclic Voltammetry Using Double-Waveform Partial-Least-Squares Regression. Analytical Chemistry, 2019, 91, 7319-7327.	6.5	33
28	Comparison of electrode materials for the detection of rapid hydrogen peroxide fluctuations using background-subtracted fast scan cyclic voltammetry. Analyst, The, 2011, 136, 3550.	3.5	31
29	Carbon-Fiber Microbiosensor for Monitoring Rapid Lactate Fluctuations in Brain Tissue Using Fast-Scan Cyclic Voltammetry. Analytical Chemistry, 2018, 90, 12994-12999.	6.5	27
30	Background Signal as an in Situ Predictor of Dopamine Oxidation Potential: Improving Interpretation of Fast-Scan Cyclic Voltammetry Data. ACS Chemical Neuroscience, 2017, 8, 411-419.	3.5	24
31	Differentiated PC12 Cells. Annals of the New York Academy of Sciences, 2002, 971, 86-88.	3.8	21
32	Spectroelectrochemical Characterization of the Dynamic Carbon-Fiber Surface in Response to Electrochemical Conditioning. Langmuir, 2017, 33, 7838-7846.	3.5	19
33	Electrochemical Selectivity Achieved Using a Double Voltammetric Waveform and Partial Least Squares Regression: Differentiating Endogenous Hydrogen Peroxide Fluctuations from Shifts in pH. Analytical Chemistry, 2018, 90, 1767-1776.	6.5	18
34	Simultaneous voltammetric detection of glucose and lactate fluctuations in rat striatum evoked by electrical stimulation of the midbrain. Analytical and Bioanalytical Chemistry, 2020, 412, 6611-6624.	3.7	18
35	Quantitative Comparison of Enzyme Immobilization Strategies for Glucose Biosensing in Realâ€Time Using Fastâ€Scan Cyclic Voltammetry Coupled with Carbonâ€Fiber Microelectrodes. ChemPhysChem, 2018, 19, 1197-1204.	2.1	16
36	High Osmolarity and <scp>L</scp>â€DOPA Augment Release via the Fusion Pore in PC12 Cells. ChemPhysChem, 2007, 8, 2471-2477.	2.1	13

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37	Interpreting Dynamic Interfacial Changes at Carbon Fiber Microelectrodes Using Electrochemical Impedance Spectroscopy. Langmuir, 2020, 36, 4214-4223.	3.5	11
38	Reducing the Sampling Rate of Biochemical Measurements Using Fast-Scan Cyclic Voltammetry for In Vivo Applications. IEEE Sensors Journal, 2014, 14, 2975-2980.	4.7	9
39	Local Î¼-Opioid Receptor Antagonism Blunts Evoked Phasic Dopamine Release in the Nucleus Accumbens of Rats. ACS Chemical Neuroscience, 2019, 10, 1935-1940.	3.5	8
40	Neurotransmitter Readily Escapes Detection at the Opposing Microelectrode Surface in Typical Amperometric Measurements of Exocytosis at Single Cells. Analytical Chemistry, 2022, 94, 9548-9556.	6.5	8
41	NMDA Receptor-Dependent Cholinergic Modulation of Mesolimbic Dopamine Cell Bodies: Neurochemical and Behavioral Studies. ACS Chemical Neuroscience, 2019, 10, 1497-1505.	3.5	7
42	Multicore Vesicles: Hyperosmolarity and l-DOPA Induce Homotypic Fusion of Dense Core Vesicles. Cellular and Molecular Neurobiology, 2007, 27, 681-685.	3.3	5
43	Reducing Data Density in Fast-Scan Cyclic Voltammetry Measurements of Dopamine Dynamics. Journal of the Electrochemical Society, 2018, 165, G3042-G3050.	2.9	3
44	Fast-Scan Voltammetry for In Vivo Measurements of Neurochemical Dynamics. Neuromethods, 2021, , 93-123.	0.3	3
45	Simultaneous Measurement of Striatal Dopamine and Hydrogen Peroxide Transients Associated with L-DOPA Induced Rotation in Hemiparkinsonian Rats. ACS Measurement Science Au, 2022, 2, 120-131.	4.4	2
46	ENZYME-BASED MICROBIOSENSORS FOR SELECTIVE QUANTIFICATION OF RAPID MOLECULAR FLUCTUATIONS IN BRAIN TISSUE. , 2015, , 137-160.		0
47	Electrochemical Monitoring of Exocytosis from Individual PC12 Cells in Culture. , 2002, , 25-73.		0