Gregory S Mccarty

List of Publications by Year
in descending order

32 papers	1,330 citations	361413 20 h-index	434195 31 g-index
32 all docs	32 docs citations	32 times ranked	1567 citing authors

#	Article	IF	Citations
1	Carbon Microelectrodes with a Renewable Surface. Analytical Chemistry, 2010, 82, 2020-2028.	6.5	194
2	Electrochemical dopamine detection: Comparing gold and carbon fiber microelectrodes using background subtracted fast scan cyclic voltammetry. Journal of Electroanalytical Chemistry, 2008, 614, 113-120.	3.8	109
3	Characterization of Local pH Changes in Brain Using Fast-Scan Cyclic Voltammetry with Carbon Microelectrodes. Analytical Chemistry, 2010, 82, 9892-9900.	6.5	107
4	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
5	Simultaneous Decoupled Detection of Dopamine and Oxygen Using Pyrolyzed Carbon Microarrays and Fast-Scan Cyclic Voltammetry. Analytical Chemistry, 2009, 81, 6258-6265.	6.5	81
6	Simultaneous monitoring of dopamine concentration at spatially different brain locations in vivo. Biosensors and Bioelectronics, 2010, 25, 1179-1185.	10.1	80
7	Formation and Manipulation of Protopolymer Chains. Journal of the American Chemical Society, 2004, 126, 16772-16776.	13.7	75
8	Microfabricated FSCV-compatible microelectrode array for real-time monitoring of heterogeneous dopamine release. Analyst, The, 2010, 135, 1556.	3.5	75
9	In Situ Electrode Calibration Strategy for Voltammetric Measurements In Vivo. Analytical Chemistry, 2013, 85, 11568-11575.	6.5	63
10	Molecular Lithography for Wafer-Scale Fabrication of Molecular Junctions. Nano Letters, 2004, 4, 1391-1394.	9.1	48
11	Multiple Scan Rate Voltammetry for Selective Quantification of Real-Time Enkephalin Dynamics. Analytical Chemistry, 2014, 86, 7806-7812.	6.5	43
12	Carbon-Fiber Nanoelectrodes for Real-Time Discrimination of Vesicle Cargo in the Native Cellular Environment. ACS Nano, 2020, 14, 2917-2926.	14.6	42
13	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
14	Drift Subtraction for Fast-Scan Cyclic Voltammetry Using Double-Waveform Partial-Least-Squares Regression. Analytical Chemistry, 2019, 91, 7319-7327.	6.5	33
15	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
16	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
17	Microfabricated Collector-Generator Electrode Sensor for Measuring Absolute pH and Oxygen Concentrations. Analytical Chemistry, 2015, 87, 10556-10564.	6.5	23
18	Effects of Molecular Structure and Interfacial Ligation on the Precision of Cu-Bound Î±,Ï‰-Mercaptoalkanoic Acid â€œMolecular Rulerâ€• Stacks. Langmuir, 2007, 23, 638-648.	3.5	22

#	ARTICLE	IF	CITATIONS
19	In situ Monitoring of Adipogenesis with Human-Adipose-Derived Stem Cells Using Surface-Enhanced Raman Spectroscopy. Applied Spectroscopy, 2010, 64, 1227-1233.	2.2	21
20	Microfabricated microelectrode sensor for measuring background and slowly changing dopamine concentrations. Journal of Electroanalytical Chemistry, 2013, 693, 28-33.	3.8	20
21	Spectroelectrochemical Characterization of the Dynamic Carbon-Fiber Surface in Response to Electrochemical Conditioning. Langmuir, 2017, 33, 7838-7846.	3.5	19
22	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
23	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
24	Statistically Significant Raman Detection of Midsequence Single Nucleotide Polymorphisms. Analytical Chemistry, 2009, 81, 2013-2016.	6.5	12
25	Enhancing electrochemical detection by scaling solid state nanogaps. Journal of Electroanalytical Chemistry, 2010, 643, 9-14.	3.8	12
26	Interpreting Dynamic Interfacial Changes at Carbon Fiber Microelectrodes Using Electrochemical Impedance Spectroscopy. Langmuir, 2020, 36, 4214-4223.	3.5	11
27	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
28	Solid state nanogaps for differential measurements of molecular properties. Applied Physics Letters, 2009, 94, 122104.	3.3	6
29	Monitoring the addition of molecular species to electrodes utilizing inherent electronic properties. Journal of Applied Physics, 2006, 99, 064701.	2.5	5
30	Reducing Data Density in Fast-Scan Cyclic Voltammetry Measurements of Dopamine Dynamics. Journal of the Electrochemical Society, 2018, 165, G3042-G3050.	2.9	3
31	Using surface-enhanced Raman spectroscopy to probe for genetic markers on single-stranded DNA. Journal of Biomedical Optics, 2010, 15, 027014.	2.6	1
32	Design and characterization of a microfabricated hydrogen clearance blood flow sensor. Journal of Neuroscience Methods, 2016, 267, 132-140.	2.5	0