

John Lowry

List of Publications by Year in descending order

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86
papers

3,707
citations

87888

38
h-index

138484

58
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90
docs citations

90
times ranked

2956
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterization of Glucose Oxidase-Modified Poly(phenylenediamine)-Coated Electrodes in vitro and in vivo: Homogeneous Interference by Ascorbic Acid in Hydrogen Peroxide Detection. <i>Analytical Chemistry</i> , 1994, 66, 1754-1761.	6.5	181
2	Safety, Efficacy, and Cost Effectiveness of Evidence-Based Guidelines for the Management of Acute Low Back Pain in Primary Care. <i>Spine</i> , 2001, 26, 2615-2622.	2.0	148
3	Coordinated Acetylcholine Release in Prefrontal Cortex and Hippocampus Is Associated with Arousal and Reward on Distinct Timescales. <i>Cell Reports</i> , 2017, 18, 905-917.	6.4	139
4	Biosensor for Neurotransmitter L-Glutamic Acid Designed for Efficient Use of L-Glutamate Oxidase and Effective Rejection of Interference. <i>Analyst</i> , 1997, 122, 1419-1424.	3.5	122
5	Comparisons of platinum, gold, palladium and glassy carbon as electrode materials in the design of biosensors for glutamate. <i>Biosensors and Bioelectronics</i> , 2004, 19, 1521-1528.	10.1	122
6	An amperometric glucose-oxidase/poly(o-phenylenediamine) biosensor for monitoring brain extracellular glucose: in vivo characterisation in the striatum of freely-moving rats. <i>Journal of Neuroscience Methods</i> , 1998, 79, 65-74.	2.5	103
7	Continuous Monitoring of Extracellular Glucose Concentrations in the Striatum of Freely Moving Rats with an Implanted Glucose Biosensor. <i>Journal of Neurochemistry</i> , 1998, 70, 391-396.	3.9	100
8	An integrative dynamic model of brain energy metabolism using in vivo neurochemical measurements. <i>Journal of Computational Neuroscience</i> , 2009, 27, 391-414.	1.0	99
9	Monitoring Brain Chemistry In Vivo: Voltammetric Techniques, Sensors, and Behavioral Applications. <i>Critical Reviews in Neurobiology</i> , 1998, 12, 69-127.	3.1	99
10	Characterization in vitro and in vivo of the oxygen dependence of an enzyme/polymer biosensor for monitoring brain glucose. <i>Journal of Neuroscience Methods</i> , 2002, 119, 135-142.	2.5	94
11	The role of astrocytes and noradrenaline in neuronal glucose metabolism. <i>Acta Physiologica Scandinavica</i> , 1999, 167, 275-284.	2.2	87
12	Control of the Oxygen Dependence of an Implantable Polymer/Enzyme Composite Biosensor for Glutamate. <i>Analytical Chemistry</i> , 2006, 78, 2352-2359.	6.5	79
13	Designing sensitive and selective polymer/enzyme composite biosensors for brain monitoring in vivo. <i>TrAC - Trends in Analytical Chemistry</i> , 2008, 27, 78-88.	11.4	79
14	Measurement of brain tissue oxygen at a carbon paste electrode can serve as an index of increases in regional cerebral blood flow. <i>Journal of Neuroscience Methods</i> , 1997, 71, 177-182.	2.5	75
15	Acute Inflammation Alters Brain Energy Metabolism in Mice and Humans: Role in Suppressed Spontaneous Activity, Impaired Cognition, and Delirium. <i>Journal of Neuroscience</i> , 2020, 40, 5681-5696.	3.6	71
16	Partial characterization in vitro of glucose oxidase-modified poly(phenylenediamine)-coated electrodes for neurochemical analysis in vivo. <i>Electroanalysis</i> , 1994, 6, 369-379.	2.9	70
17	Homogeneous mechanism of ascorbic acid interference in hydrogen peroxide detection at enzyme-modified electrodes. <i>Analytical Chemistry</i> , 1992, 64, 453-456.	6.5	69
18	Oxygen tolerance of an implantable polymer/enzyme composite glutamate biosensor displaying polycation-enhanced substrate sensitivity. <i>Biosensors and Bioelectronics</i> , 2007, 22, 1466-1473.	10.1	68

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19	Brain tissue oxygen amperometry in behaving rats demonstrates functional dissociation of dorsal and ventral hippocampus during spatial processing and anxiety. <i>European Journal of Neuroscience</i> , 2011, 33, 322-337.	2.6	67
20	Aversive Prediction Error Signals in the Amygdala. <i>Journal of Neuroscience</i> , 2014, 34, 9024-9033.	3.6	64
21	Modifications of Poly(o-phenylenediamine) Permselective Layer on Pt-Ir for Biosensor Application in Neurochemical Monitoring. <i>Sensors</i> , 2007, 7, 420-437.	3.8	61
22	Evidence for uncoupling of oxygen and glucose utilization during neuronal activation in rat striatum.. <i>Journal of Physiology</i> , 1997, 498, 497-501.	2.9	60
23	Real-Time Monitoring of Brain Tissue Oxygen Using a Miniaturized Biotelemetric Device Implanted in Freely Moving Rats. <i>Analytical Chemistry</i> , 2009, 81, 2235-2241.	6.5	60
24	Characterisation of carbon paste electrodes for real-time amperometric monitoring of brain tissue oxygen. <i>Journal of Neuroscience Methods</i> , 2011, 195, 135-142.	2.5	59
25	Real-time electrochemical monitoring of brain tissue oxygen: A surrogate for functional magnetic resonance imaging in rodents. <i>NeuroImage</i> , 2010, 52, 549-555.	4.2	57
26	Real-time monitoring of brain energy metabolism in vivo using microelectrochemical sensors: the effects of anesthesia. <i>Bioelectrochemistry</i> , 2001, 54, 39-47.	4.6	56
27	Characterization of carbon paste electrodes in vitro for simultaneous amperometric measurement of changes in oxygen and ascorbic acid concentrations in vivo. <i>Analyst, The</i> , 1996, 121, 761.	3.5	53
28	An in vitro characterisation comparing carbon paste and Pt microelectrodes for real-time detection of brain tissue oxygen. <i>Analyst, The</i> , 2011, 136, 4028.	3.5	53
29	The efficiency of immobilised glutamate oxidase decreases with surface enzyme loading: an electrostatic effect, and reversal by a polycation significantly enhances biosensor sensitivity. <i>Analyst, The</i> , 2006, 131, 68-72.	3.5	49
30	Nitric oxide monitoring in brain extracellular fluid: characterisation of Nafion®-modified Pt electrodes in vitro and in vivo. <i>Analyst, The</i> , 2009, 134, 2012.	3.5	48
31	Development of an implantable d-serine biosensor for in vivo monitoring using mammalian d-amino acid oxidase on a poly (o-phenylenediamine) and Nafion-modified platinum-iridium disk electrode. <i>Biosensors and Bioelectronics</i> , 2010, 25, 1454-1459.	10.1	47
32	Biotelemetric Monitoring of Brain Neurochemistry in Conscious Rats Using Microsensors and Biosensors. <i>Sensors</i> , 2009, 9, 2511-2523.	3.8	44
33	Microelectrochemical sensors for in vivo brain analysis: an investigation of procedures for modifying Pt electrodes using Nafion®. <i>Analyst, The</i> , 2003, 128, 700-705.	3.5	43
34	Design and construction of a low cost single-supply embedded telemetry system for amperometric biosensor applications. <i>Sensors and Actuators B: Chemical</i> , 2007, 122, 118-126.	7.8	43
35	Anomalously High Concentrations of Brain Extracellular Uric Acid Detected with Chronically Implanted Probes: Implications for In Vivo Sampling Techniques. <i>Journal of Neurochemistry</i> , 1991, 57, 22-29.	3.9	42
36	Calibration of NO sensors for in-vivo voltammetry: laboratory synthesis of NO and the use of UV-visible spectroscopy for determining stock concentrations. <i>Analytical and Bioanalytical Chemistry</i> , 2005, 381, 964-971.	3.7	42

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37	Development and characterization in vitro of a catalase-based biosensor for hydrogen peroxide monitoring. <i>Biosensors and Bioelectronics</i> , 2007, 22, 2994-3000.	10.1	41
38	Behaviourally induced changes in extracellular levels of brain glutamate monitored at 1 s resolution with an implanted biosensor. <i>Analytical Communications</i> , 1998, 35, 87-89.	2.2	38
39	Brain Tissue Oxygen: In Vivo Monitoring with Carbon Paste Electrodes. <i>Sensors</i> , 2005, 5, 473-487.	3.8	38
40	A microelectrochemical biosensor for real-time in vivo monitoring of brain extracellular choline. <i>Analyst</i> , 2015, 140, 3738-3745.	3.5	37
41	Simultaneous recording of hippocampal oxygen and glucose in real time using constant potential amperometry in the freely-moving rat. <i>Journal of Neuroscience Methods</i> , 2013, 215, 110-120.	2.5	34
42	On the significance of brain extracellular uric acid detected with in-vivo monitoring techniques: a review. <i>Behavioural Brain Research</i> , 1995, 71, 33-49.	2.2	31
43	Relation between Cerebral Blood Flow and Extracellular Glucose in Rat Striatum during Mild Hypoxia and Hyperoxia. <i>Developmental Neuroscience</i> , 1998, 20, 52-58.	2.0	31
44	Development of a distributed, fully automated, bidirectional telemetry system for amperometric microsensor and biosensor applications. <i>Sensors and Actuators B: Chemical</i> , 2007, 126, 700-709.	7.8	31
45	Contributions by a Novel Edge Effect to the Permselectivity of an Electrosynthesized Polymer for Microbiosensor Applications. <i>Analytical Chemistry</i> , 2009, 81, 3911-3918.	6.5	31
46	Changes in reward-related signals in the rat nucleus accumbens measured by in vivo oxygen amperometry are consistent with fMRI BOLD responses in man. <i>NeuroImage</i> , 2012, 60, 2169-2181.	4.2	29
47	Strategies for reducing ascorbate interference at glucose oxidase modified conducting organic salt electrodes. <i>Journal of Electroanalytical Chemistry</i> , 1992, 334, 183-194.	3.8	28
48	Prefrontal GABAB Receptor Activation Attenuates Phencyclidine-Induced Impairments of Prepulse Inhibition: Involvement of Nitric Oxide. <i>Neuropsychopharmacology</i> , 2009, 34, 1673-1684.	5.4	28
49	Close temporal coupling of neuronal activity and tissue oxygen responses in rodent whisker barrel cortex. <i>European Journal of Neuroscience</i> , 2011, 34, 1983-1996.	2.6	28
50	An Investigation of Hypofrontality in an Animal Model of Schizophrenia Using Real-Time Microelectrochemical Sensors for Glucose, Oxygen, and Nitric Oxide. <i>ACS Chemical Neuroscience</i> , 2013, 4, 825-831.	3.5	27
51	Studies of the Source of Glucose in the Extracellular Compartment of the Rat Brain. <i>Developmental Neuroscience</i> , 1998, 20, 365-368.	2.0	26
52	Highly selective and stable microdisc biosensors for l-glutamate monitoring. <i>Sensors and Actuators B: Chemical</i> , 2013, 178, 606-614.	7.8	26
53	The relation between local cerebral blood flow and extracellular glucose concentration in rat striatum. <i>Experimental Physiology</i> , 1998, 83, 233-238.	2.0	25
54	Brain nitric oxide: Regional characterisation of a real-time microelectrochemical sensor. <i>Journal of Neuroscience Methods</i> , 2012, 209, 13-21.	2.5	25

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55	Hemodynamic responses in amygdala and hippocampus distinguish between aversive and neutral cues during Pavlovian fear conditioning in behaving rats. <i>European Journal of Neuroscience</i> , 2013, 37, 498-507.	2.6	25
56	Formation of adherent polypyrrole coatings on Ti and Ti-6Al-4V alloy. <i>Synthetic Metals</i> , 2005, 148, 111-118.	3.9	24
57	In vivo characterisation of a Nafion®-modified Pt electrode for real-time nitric oxide monitoring in brain extracellular fluid. <i>Analytical Methods</i> , 2012, 4, 550.	2.7	24
58	Dissociable Effects of Antipsychotics on Ketamine-Induced Changes in Regional Oxygenation and Inter-Regional Coherence of Low Frequency Oxygen Fluctuations in the Rat. <i>Neuropsychopharmacology</i> , 2014, 39, 1635-1644.	5.4	23
59	Variation in Serotonin Transporter Expression Modulates Fear-Evoked Hemodynamic Responses and Theta-Frequency Neuronal Oscillations in the Amygdala. <i>Biological Psychiatry</i> , 2014, 75, 901-908.	1.3	23
60	Differential Contributions of Infralimbic Prefrontal Cortex and Nucleus Accumbens during Reward-Based Learning and Extinction. <i>Journal of Neuroscience</i> , 2014, 34, 596-607.	3.6	23
61	Increased cortical nitric oxide release after phencyclidine administration. <i>Synapse</i> , 2009, 63, 1083-1088.	1.2	22
62	Increased brain nitric oxide levels following ethanol administration. <i>Nitric Oxide - Biology and Chemistry</i> , 2015, 47, 52-57.	2.7	22
63	Development of a microelectrochemical biosensor for the real-time detection of choline. <i>Sensors and Actuators B: Chemical</i> , 2017, 243, 412-420.	7.8	19
64	Novel integrated microdialysis-ampereometric system for in vitro detection of dopamine secreted from PC12 cells: Design, construction, and validation. <i>Analytical Biochemistry</i> , 2008, 380, 323-330.	2.4	18
65	In vivo characterisation of a catalase-based biosensor for real-time electrochemical monitoring of brain hydrogen peroxide in freely-moving animals. <i>Analytical Methods</i> , 2017, 9, 1253-1264.	2.7	16
66	The effect of NMDA-R antagonism on simultaneously acquired local field potentials and tissue oxygen levels in the brains of freely-moving rats. <i>Neuropharmacology</i> , 2017, 116, 343-350.	4.1	14
67	Development of a voltammetric technique for monitoring brain dopamine metabolism: compensation for interference caused by DOPAC electrogenerated during homovanillic acid detection. <i>Analyst</i> , 2009, 134, 893.	3.5	13
68	Characterisation of a Platinum-based Electrochemical Biosensor for Real-time Neurochemical Analysis of Choline. <i>Electroanalysis</i> , 2019, 31, 129-136.	2.9	13
69	Remediation of chromium(VI) at polypyrrole-coated titanium. <i>Journal of Applied Electrochemistry</i> , 2009, 39, 1251-1257.	2.9	12
70	Efficient glucose detection in anaerobic solutions using an enzyme-modified electrode designed to detect H ₂ O ₂ : implications for biomedical applications. <i>Journal of the Chemical Society Chemical Communications</i> , 1994, , 2483.	2.0	11
71	Information processing deficits and nitric oxide signalling in the phencyclidine model of schizophrenia. <i>Psychopharmacology</i> , 2010, 212, 643-651.	3.1	11
72	The effect of nicotine induced behavioral sensitization on dopamine D1 receptor pharmacology: An in vivo and ex vivo study in the rat. <i>European Neuropsychopharmacology</i> , 2015, 25, 933-943.	0.7	11

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73	In vitro physiological performance factors of a catalase-based biosensor for real-time electrochemical detection of brain hydrogen peroxide in freely-moving animals. <i>Analytical Methods</i> , 2016, 8, 7614-7622.	2.7	11
74	Continuous Real-Time in vivo Measurement of Cerebral Nitric Oxide Supports Theoretical Predictions of an Irreversible Switching in Cerebral ROS after Sufficient Exposure to External Toxins. <i>Journal of Parkinson's Disease</i> , 2013, 3, 351-362.	2.8	10
75	Frequency-Dependent Modulation of Dopamine Release by Nicotine and Dopamine D1 Receptor Ligands: An In Vitro Fast Cyclic Voltammetry Study in Rat Striatum. <i>Neurochemical Research</i> , 2016, 41, 945-950.	3.3	9
76	Real-time effects of insulin-induced hypoglycaemia on hippocampal glucose and oxygen. <i>Brain Research</i> , 2015, 1598, 76-87.	2.2	8
77	A comparison of the effects of the dopamine partial agonists aripiprazole and (âˆ-)3-PPP with quinpirole on stimulated dopamine release in the rat striatum: Studies using fast cyclic voltammetry in vitro. <i>European Journal of Pharmacology</i> , 2012, 686, 60-65.	3.5	7
78	<i>In-Vitro</i> Development and Characterisation of a Superoxide Dismutase-Based Biosensor.. <i>ChemistrySelect</i> , 2017, 2, 4157-4164.	1.5	7
79	Real-time changes in hippocampal energy demands during a spatial working memory task. <i>Behavioural Brain Research</i> , 2017, 326, 59-68.	2.2	4
80	Effects of a combination of 3,4-methylenedioxymethamphetamine and caffeine on real time stimulated dopamine release in the rat striatum: Studies using fast cyclic voltammetry. <i>Journal of Neuroscience Methods</i> , 2018, 300, 216-223.	2.5	4
81	Multicomponent analysis using a confocal Raman microscope. <i>Applied Optics</i> , 2018, 57, E118.	1.8	4
82	A review of Raman for multicomponent analysis. <i>Proceedings of SPIE</i> , 2014, , .	0.8	3
83	Real-Time In Vivo Sensing of Neurochemicals. , 2012, , 111-129.		0
84	Development and validation of a real-time microelectrochemical sensor for clinical monitoring of tissue oxygenation/perfusion. <i>Analytical Methods</i> , 2020, 12, 2453-2459.	2.7	0
85	Determination of Brain Extracellular Glucose in Vivo with an Implanted Biosensor. , 1997, , 577-581.		0
86	Quantifying the concentration of glucose, urea, and lactic acid in mixture by confocal Raman microscopy. , 2018, , .		0