

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
g-index

90
all docs

90
docs citations

90
times ranked

2956
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	Characterisation of a Platinum-based Electrochemical Biosensor for Real-time Neurochemical Analysis of Choline. <i>Electroanalysis</i> , 2019, 31, 129-136.	2.9	13
4	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
5	Multicomponent analysis using a confocal Raman microscope. <i>Applied Optics</i> , 2018, 57, E118.	1.8	4
6	Quantifying the concentration of glucose, urea, and lactic acid in mixture by confocal Raman microscopy. , 2018, , .		0
7	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
8	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
9	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
10	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
11	<i>In-Vitro</i> Development and Characterisation of a Superoxide Dismutase-Based Biosensor.. <i>ChemistrySelect</i> , 2017, 2, 4157-4164.	1.5	7
12	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
13	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
14	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
15	Real-time effects of insulin-induced hypoglycaemia on hippocampal glucose and oxygen. <i>Brain Research</i> , 2015, 1598, 76-87.	2.2	8
16	Increased brain nitric oxide levels following ethanol administration. <i>Nitric Oxide - Biology and Chemistry</i> , 2015, 47, 52-57.	2.7	22
17	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
18	A microelectrochemical biosensor for real-time in vivo monitoring of brain extracellular choline. <i>Analyst</i> , 2015, 140, 3738-3745.	3.5	37

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19	A review of Raman for multicomponent analysis. Proceedings of SPIE, 2014, , .	0.8	3
20	Dissociable Effects of Antipsychotics on Ketamine-Induced Changes in Regional Oxygenation and Inter-Regional Coherence of Low Frequency Oxygen Fluctuations in the Rat. Neuropsychopharmacology, 2014, 39, 1635-1644.	5.4	23
21	Aversive Prediction Error Signals in the Amygdala. Journal of Neuroscience, 2014, 34, 9024-9033.	3.6	64
22	Variation in Serotonin Transporter Expression Modulates Fear-Evoked Hemodynamic Responses and Theta-Frequency Neuronal Oscillations in the Amygdala. Biological Psychiatry, 2014, 75, 901-908.	1.3	23
23	Differential Contributions of Infralimbic Prefrontal Cortex and Nucleus Accumbens during Reward-Based Learning and Extinction. Journal of Neuroscience, 2014, 34, 596-607.	3.6	23
24	Highly selective and stable microdisc biosensors for l-glutamate monitoring. Sensors and Actuators B: Chemical, 2013, 178, 606-614.	7.8	26
25	Hemodynamic responses in amygdala and hippocampus distinguish between aversive and neutral cues during Pavlovian fear conditioning in behaving rats. European Journal of Neuroscience, 2013, 37, 498-507.	2.6	25
26	Simultaneous recording of hippocampal oxygen and glucose in real time using constant potential amperometry in the freely-moving rat. Journal of Neuroscience Methods, 2013, 215, 110-120.	2.5	34
27	An Investigation of Hypofrontality in an Animal Model of Schizophrenia Using Real-Time Microelectrochemical Sensors for Glucose, Oxygen, and Nitric Oxide. ACS Chemical Neuroscience, 2013, 4, 825-831.	3.5	27
28	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. Journal of Parkinson's Disease, 2013, 3, 351-362.	2.8	10
29	Real-Time In Vivo Sensing of Neurochemicals. , 2012, , 111-129.		0
30	Changes in reward-related signals in the rat nucleus accumbens measured by in vivo oxygen amperometry are consistent with fMRI BOLD responses in man. NeuroImage, 2012, 60, 2169-2181.	4.2	29
31	In vivo characterisation of a Nafion®-modified Pt electrode for real-time nitric oxide monitoring in brain extracellular fluid. Analytical Methods, 2012, 4, 550.	2.7	24
32	A comparison of the effects of the dopamine partial agonists aripiprazole and (α ¹)-3-PPP with quinpirole on stimulated dopamine release in the rat striatum: Studies using fast cyclic voltammetry in vitro. European Journal of Pharmacology, 2012, 686, 60-65.	3.5	7
33	Brain nitric oxide: Regional characterisation of a real-time microelectrochemical sensor. Journal of Neuroscience Methods, 2012, 209, 13-21.	2.5	25
34	Brain tissue oxygen amperometry in behaving rats demonstrates functional dissociation of dorsal and ventral hippocampus during spatial processing and anxiety. European Journal of Neuroscience, 2011, 33, 322-337.	2.6	67
35	Close temporal coupling of neuronal activity and tissue oxygen responses in rodent whisker barrel cortex. European Journal of Neuroscience, 2011, 34, 1983-1996.	2.6	28
36	Characterisation of carbon paste electrodes for real-time amperometric monitoring of brain tissue oxygen. Journal of Neuroscience Methods, 2011, 195, 135-142.	2.5	59

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37	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
38	Information processing deficits and nitric oxide signalling in the phencyclidine model of schizophrenia. <i>Psychopharmacology</i> , 2010, 212, 643-651.	3.1	11
39	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
40	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
41	Biotelemetric Monitoring of Brain Neurochemistry in Conscious Rats Using Microsensors and Biosensors. <i>Sensors</i> , 2009, 9, 2511-2523.	3.8	44
42	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
43	Remediation of chromium(VI) at polypyrrole-coated titanium. <i>Journal of Applied Electrochemistry</i> , 2009, 39, 1251-1257.	2.9	12
44	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
45	Increased cortical nitric oxide release after phencyclidine administration. <i>Synapse</i> , 2009, 63, 1083-1088.	1.2	22
46	Development of a voltammetric technique for monitoring brain dopamine metabolism: compensation for interference caused by DOPAC electrogenerated during homovanillic acid detection. <i>Analyst, The</i> , 2009, 134, 893.	3.5	13
47	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
48	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
49	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
50	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
51	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
52	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
53	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
54	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

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55	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
56	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
57	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
58	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
59	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
60	Brain Tissue Oxygen: In Vivo Monitoring with Carbon Paste Electrodes. <i>Sensors</i> , 2005, 5, 473-487.	3.8	38
61	Formation of adherent polypyrrole coatings on Ti and Ti-6Al-4V alloy. <i>Synthetic Metals</i> , 2005, 148, 111-118.	3.9	24
62	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
63	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
64	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
65	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
66	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
67	The role of astrocytes and noradrenaline in neuronal glucose metabolism. <i>Acta Physiologica Scandinavica</i> , 1999, 167, 275-284.	2.2	87
68	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
69	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
70	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
71	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
72	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

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73	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
74	Monitoring Brain Chemistry In Vivo: Voltammetric Techniques, Sensors, and Behavioral Applications. <i>Critical Reviews in Neurobiology</i> , 1998, 12, 69-127.	3.1	99
75	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
76	Biosensor for Neurotransmitter L-Glutamic Acid Designed for Efficient Use of L-Glutamate Oxidase and Effective Rejection of Interference. <i>Analyst, The</i> , 1997, 122, 1419-1424.	3.5	122
77	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
78	Determination of Brain Extracellular Glucose in Vivo with an Implanted Biosensor. , 1997, , 577-581.		0
79	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
80	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
81	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
82	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
83	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
84	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
85	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
86	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