Kevin E Bennet

List of Publications by Year
in descending order

61 papers	1,566 citations	279798 23 h-index	330143 37 g-index
63 all docs	63 docs citations	63 times ranked	1903 citing authors

#	Article	IF	Citations
1	A neurochemical closed-loop controller for deep brain stimulation: toward individualized smart neuromodulation therapies. Frontiers in Neuroscience, 2014, 8, 169.	2.8	115
2	Wireless Fast-Scan Cyclic Voltammetry to Monitor Adenosine in Patients With Essential Tremor During Deep Brain Stimulation. Mayo Clinic Proceedings, 2012, 87, 760-765.	3.0	88
3	A Diamond-Based Electrode for Detection of Neurochemicals in the Human Brain. Frontiers in Human Neuroscience, 2016, 10, 102.	2.0	82
4	Wireless Instantaneous Neurotransmitter Concentration Systemâ€“based amperometric detection of dopamine, adenosine, and glutamate for intraoperative neurochemical monitoring. Journal of Neurosurgery, 2009, 111, 701-711.	1.6	78
5	Tracking tonic dopamine levels in vivo using multiple cyclic square wave voltammetry. Biosensors and Bioelectronics, 2018, 121, 174-182.	10.1	75
6	Development of the Wireless Instantaneous Neurotransmitter Concentration System for intraoperative neurochemical monitoring using fast-scan cyclic voltammetry. Journal of Neurosurgery, 2009, 111, 712-723.	1.6	71
7	The development of an implantable deep brain stimulation device with simultaneous chronic electrophysiological recording and stimulation in humans. Biosensors and Bioelectronics, 2021, 176, 112888.	10.1	60
8	Novel Bloodless Potassium Determination Using a Signalâ€Processed Singleâ€Lead ECG. Journal of the American Heart Association, 2016, 5, .	3.7	59
9	Monitoring In Vivo Changes in Tonic Extracellular Dopamine Level by Charge-Balancing Multiple Waveform Fast-Scan Cyclic Voltammetry. Analytical Chemistry, 2016, 88, 10962-10970.	6.5	56
10	Antibacterial and Biocompatible Titanium-Copper Oxide Coating May Be a Potential Strategy to Reduce Periprosthetic Infection: An In Vitro Study. Clinical Orthopaedics and Related Research, 2017, 475, 722-732.	1.5	55
11	Comonitoring of adenosine and dopamine using the Wireless Instantaneous Neurotransmitter Concentration System: proof of principle. Journal of Neurosurgery, 2010, 112, 539-548.	1.6	53
12	Wireless Instantaneous Neurotransmitter Concentration System: electrochemical monitoring of serotonin using fast-scan cyclic voltammetryâ€”a proof-of-principle study. Journal of Neurosurgery, 2010, 113, 656-665.	1.6	51
13	WINCS Harmoni: Closed-loop dynamic neurochemical control of therapeutic interventions. Scientific Reports, 2017, 7, 46675.	3.3	46
14	Centromedian-Parafascicular Deep Brain Stimulation Induces Differential Functional Inhibition of the Motor, Associative, and Limbic Circuits in Large Animals. Biological Psychiatry, 2013, 74, 917-926.	1.3	45
15	Development of Conductive Boron-Doped Diamond Electrode: A microscopic, Spectroscopic, and Voltammetric Study. Materials, 2013, 6, 5726-5741.	2.9	45
16	Subthalamic Nucleus Deep Brain Stimulation Induces Motor Network BOLD Activation: Use of a High Precision MRI Guided Stereotactic System for Nonhuman Primates. Brain Stimulation, 2014, 7, 603-607.	1.6	44
17	Noninvasive potassium determination using a mathematically processed ECG: Proof of concept for a novel â€œblood-less, blood testâ€. Journal of Electrocardiology, 2015, 48, 12-18.	0.9	38
18	Dopamine Release in the Nonhuman Primate Caudate and Putamen Depends upon Site of Stimulation in the Subthalamic Nucleus. Journal of Neuroscience, 2016, 36, 6022-6029.	3.6	38

#	Article	IF	Citations
19	Wireless instantaneous neurotransmitter concentration sensing system (WINCS) for intraoperative neurochemical monitoring. , 2009, 2009, 4856-9.		33
20	Noninvasive blood potassium measurement using signal-processed, single-lead ecg acquired from a handheld smartphone. Journal of Electrocardiology, 2017, 50, 620-625.	0.9	33
21	Raman Computational and Experimental Studies of Dopamine Detection. Biosensors, 2017, 7, 43.	4.7	33
22	Fast Cyclic Square-Wave Voltammetry To Enhance Neurotransmitter Selectivity and Sensitivity. Analytical Chemistry, 2018, 90, 13348-13355.	6.5	31
23	Evaluation of electrochemical methods for tonic dopamine detection inÂvivo. TrAC - Trends in Analytical Chemistry, 2020, 132, 116049.	11.4	31
24	Clinical applications of neurochemical and electrophysiological measurements for closed-loop neurostimulation. Neurosurgical Focus, 2020, 49, E6.	2.3	27
25	Sensitive and Selective Measurement of Serotonin in Vivo Using Fast Cyclic Square-Wave Voltammetry. Analytical Chemistry, 2020, 92, 774-781.	6.5	20
26	Label-Free Raman Imaging to Monitor Breast Tumor Signatures. Technology in Cancer Research and Treatment, 2017, 16, 461-469.	1.9	17
27	Cocaine-Induced Changes in Tonic Dopamine Concentrations Measured Using Multiple-Cyclic Square Wave Voltammetry in vivo. Frontiers in Pharmacology, 2021, 12, 705254.	3.5	17
28	Simultaneous Detection of Dopamine and Serotoninâ€"A Comparative Experimental and Theoretical Study of Neurotransmitter Interactions. Biosensors, 2019, 9, 3.	4.7	15
29	Investigation of the reduction process of dopamine using paired pulse voltammetry. Journal of Electroanalytical Chemistry, 2014, 717-718, 157-164.	3.8	13
30	Development of a miniature device for emerging deep brain stimulation paradigms. PLoS ONE, 2019, 14, e0212554.	2.5	12
31	Wireless control of intraspinal microstimulation in a rodent model of paralysis. Journal of Neurosurgery, 2015, 123, 232-242.	1.6	11
32	Microdialysis and microperfusion electrodes in neurologic disease monitoring. Fluids and Barriers of the CNS, 2021, 18, 52.	5.0	11
33	Dopamine measurement during prolonged deep brain stimulation: A proof-of-principle study of paired pulse voltammetry. Biomedical Engineering Letters, 2013, 3, 22-31.	4.1	10
34	Detection of norepinephrine in whole blood via fast scan cyclic voltammetry. , 2017, 2017, 111-116.		10
35	An investigation into closed-loop treatment of neurological disorders based on sensing mitochondrial dysfunction. Journal of NeuroEngineering and Rehabilitation, 2018, 15, 8.	4.6	10
36	Analysis of Carbon-Based Microelectrodes for Neurochemical Sensing. Materials, 2019, 12, 3186.	2.9	10

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37	Deep Brain Stimulation for Addictive Disordersâ€"Where Are We Now?. Neurotherapeutics, 2022, 19, 1193-1215.	4.4	10
38	Analysis of Serotonin Molecules on Silver Nanocolloidsâ€"A Raman Computational and Experimental Study. Sensors, 2017, 17, 1471.	3.8	9
39	A novel re-attachable stereotactic frame for MRI-guided neuronavigation and its validation in a large animal and human cadaver model. Journal of Neural Engineering, 2018, 15, 066003.	3.5	9
40	Tonic Serotonin MeasurementsIn VivoUsing N-Shaped Multiple Cyclic Square Wave Voltammetry. Analytical Chemistry, 2021, 93, 16987-16994.	6.5	9
41	Cocaine increases stimulation-evoked serotonin efflux in the nucleus accumbens. Journal of Neurophysiology, 2022, 127, 714-724.	1.8	9
42	Raman and Conductivity Analysis of Graphene for Biomedical Applications. Materials, 2016, 9, 897.	2.9	8
43	Multi-waveform fast-scan cyclic voltammetry mapping of adsorption/desorption kinetics of biogenic amines and their metabolites. Analytical Methods, 2018, 10, 2834-2843.	2.7	8
44	Raman Spectroscopic and Microscopic Analysis for Monitoring Renal Osteodystrophy Signatures. Biosensors, 2018, 8, 38.	4.7	7
45	Raman Microscopic Analysis of Internal Stress in Boron-Doped Diamond. Materials, 2015, 8, 2782-2793.	2.9	6
46	Comparative Computational and Experimental Detection of Adenosine Using Ultrasensitive Surface-Enhanced Raman Spectroscopy. Sensors, 2018, 18, 2696.	3.8	6
47	The development of ultraâ€"high field MRI guidance technology for neuronavigation. Journal of Neurosurgery, 2022, 137, 1265-1277.	1.6	6
48	Implementation of a chronic unilateral intraparenchymal drug delivery system in a swine model. Journal of Neuroscience Methods, 2014, 227, 29-34.	2.5	5
49	Assessment of Renal Osteodystrophy via Computational Analysis of Label-free Raman Detection of Multiple Biomarkers. Diagnostics, 2020, 10, 79.	2.6	5
50	A compact stereotactic system for image-guided surgical intervention. Journal of Neural Engineering, 2020, 17, 066014.	3.5	5
51	Radio frequency energy harvesting from a feeding source in a passive deep brain stimulation device for murine preclinical research. Medical Engineering and Physics, 2015, 37, 1020-1026.	1.7	3
52	Raman computational and experimental studies of dopamine molecules on silver nanocolloids. , 2017, , .		3
53	An Investigation Into Miniaturised Closed-Loop DBS Devices. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 671-680.	3.2	3
54	Development and validation of a rapidly deployable CT-guided stereotactic system for external ventricular drainage: preclinical study. Scientific Reports, 2021, 11, 17492.	3.3	3

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55	Enhanced Dopamine Sensitivity Using Steered Fast-Scan Cyclic Voltammetry. ACS Omega, 2021, 6, 33599-33606.	3.5	3
56	Miniature FSCV Devices: A Review. IEEE Sensors Journal, 2021, 21, 13006-13018.	4.7	2
57	Feasibility of Applying Fourier Transform Electrochemical Impedance Spectroscopy in Fast Cyclic Square Wave Voltammetry for the In Vivo Measurement of Neurotransmitters. Analytical Chemistry, 2021, 93, 15861-15869.	6.5	2
58	Assessing Nordihydroguaiaretic Acid Therapeutic Effect for Glioblastoma Multiforme. Sensors, 2022, 22, 2643.	3.8	2
59	ELECTROCHEMICAL RECORDINGS DURING DEEP BRAIN STIMULATION IN ANIMALS AND HUMANS: WINCS, MINCS, AND CLOSED-LOOP DBS. , 2015, , 225-250.		0
60	Instrumentation for electrochemical performance characterization of neural electrodes. Review of Scientific Instruments, 2017, 88, 085101.	1.3	0
61	Tailoring fast-scan cyclic voltammetry for tonic dopamine concentration measurement. , 2017, , .		0