Daryl R Kipke

List of Publications by Year
in descending order

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86	7,829	94433	110387
papers	citations	37 h-index	64 g-index

87	87	87	6695
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	CNS Recording: Devices and Techniques. Series on Bioengineering and Biomedical Engineering, 2017, , 467-488.	0.1	0
2	A Novel Lead Design for Modulation and Sensing of Deep Brain Structures. IEEE Transactions on Biomedical Engineering, 2016, 63, 148-157.	4.2	31
3	Tools for Probing Local Circuits: High-Density Silicon Probes Combined with Optogenetics. Neuron, 2015, 86, 92-105.	8.1	284
4	High gamma power in ECoG reflects cortical electrical stimulation effects on unit activity in layers V/VI. Journal of Neural Engineering, 2013, 10, 066002.	3.5	21
5	Voltage Biasing, Cyclic Voltammetry, & Electrical Impedance Spectroscopy for Neural Interfaces. Journal of Visualized Experiments, 2012, , .	0.3	9
6	Surgical Implantation of Chronic Neural Electrodes for Recording Single Unit Activity and Electrocorticographic Signals. Journal of Visualized Experiments, 2012, , .	0.3	25
7	Acquiring Brain Signals from within the Brain. , 2012, , 81-103.		5
8	Ultrasmall implantable composite microelectrodes with bioactive surfaces for chronic neural interfaces. Nature Materials, 2012, 11, 1065-1073.	27.5	601
9	Hybrid Conducting Polymerâ€“Hydrogel Conduits for Axonal Growth and Neural Tissue Engineering. Advanced Healthcare Materials, 2012, 1, 762-767.	7.6	117
10	Theoretical analysis of intracortical microelectrode recordings. Journal of Neural Engineering, 2011, 8, 045006.	3.5	98
11	Microscale Electrode Implantation during Nerve Repair. Plastic and Reconstructive Surgery, 2011, 128, 270e-278e.	1.4	17
12	Polarity of cortical electrical stimulation differentially affects neuronal activity of deep and superficial layers of rat motor cortex. Brain Stimulation, 2011, 4, 228-241.	1.6	22
13	Novel multi-sided, microelectrode arrays for implantable neural applications. Biomedical Microdevices, 2011, 13, 441-451.	2.8	80
14	Investigation of the material properties of alginate for the development of hydrogel repair of dura mater. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 16-33.	3.1	45
15	Poly(3,4-ethylenedioxythiophene) (PEDOT) polymer coatings facilitate smaller neural recording electrodes. Journal of Neural Engineering, 2011, 8, 014001.	3.5	225
16	Use of a Bayesian maximum-likelihood classifier to generate training data for brainâ€“machine interfaces. Journal of Neural Engineering, 2011, 8, 046009.	3.5	16
17	In Vivo Electrical Conductivity across Critical Nerve Gaps Using Poly(3,4-ethylenedioxythiophene)-Coated Neural Interfaces. Plastic and Reconstructive Surgery, 2010, 126, 1865-1873.	1.4	24
18	Development of Closed-Loop Neural Interface Technology in a Rat Model: Combining Motor Cortex Operant Conditioning With Visual Cortex Microstimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 117-126.	4.9	25

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19	An alginate hydrogel dura mater replacement for use with intracortical electrodes. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2010, 95B, 421-429.	3.4	16
20	Conducting polymers on hydrogel-coated neural electrode provide sensitive neural recordings in auditory cortex. Acta Biomaterialia, 2010, 6, 57-62.	8.3	186
21	Conductingâ€Polymer Nanotubes Improve Electrical Properties, Mechanical Adhesion, Neural Attachment, and Neurite Outgrowth of Neural Electrodes. Small, 2010, 6, 421-429.	10.0	362
22	Mechanical characterization of conducting polymer actuated neural probes under physiological settings. , 2010, , .		1
23	A 64 Channel Programmable Closed-Loop Neurostimulator With 8 Channel Neural Amplifier and Logarithmic ADC. IEEE Journal of Solid-State Circuits, 2010, 45, 1935-1945.	5.4	121
24	A Tunable Biquad Switched-Capacitor Amplifier-Filter for Neural Recording. IEEE Transactions on Biomedical Circuits and Systems, 2010, 4, 295-300.	4.0	27
25	Insertion of a three dimensional silicon microelectrode assembly through a thick meningeal membrane. , 2009, 2009, 1616-8.		6
26	In vivo performance of a microelectrode neural probe with integrated drug delivery. Neurosurgical Focus, 2009, 27, E8.	2.3	50
27	Using a Common Average Reference to Improve Cortical Neuron Recordings From Microelectrode Arrays. Journal of Neurophysiology, 2009, 101, 1679-1689.	1.8	359
28	Interfacing Conducting Polymer Nanotubes with the Central Nervous System: Chronic Neural Recording using Poly(3,4â€ethylenedioxythiophene) Nanotubes. Advanced Materials, 2009, 21, 3764-3770.	21.0	246
29	The insulation performance of reactive parylene films in implantable electronic devices. Biomaterials, 2009, 30, 6158-6167.	11.4	119
30	Flavopiridol reduces the impedance of neural prostheses in vivo without affecting recording quality. Journal of Neuroscience Methods, 2009, 183, 149-157.	2.5	48
31	Insertion shuttle with carboxyl terminated self-assembled monolayer coatings for implanting flexible polymer neural probes in the brain. Journal of Neuroscience Methods, 2009, 184, 199-205.	2.5	168
32	Validation of a novel three-dimensional electrode array within auditory cortex. , 2009, 2009, 2066-9.		4
33	Lower layers in the motor cortex are more effective targets for penetrating microelectrodes in cortical prostheses. Journal of Neural Engineering, 2009, 6, 026004.	3.5	10
34	Implantable microelectrode arrays for simultaneous electrophysiological and neurochemical recordings. Journal of Neuroscience Methods, 2008, 174, 62-70.	2.5	101
35	Advanced Neurotechnologies for Chronic Neural Interfaces: New Horizons and Clinical Opportunities. Journal of Neuroscience, 2008, 28, 11830-11838.	3.6	256
36	Cytotoxic analysis of the conducting polymer PEDOT using myocytes. , 2008, 2008, 1841-4.		29

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37	Development of Neural Interfaces for Chronic Use in Neuromotor Prosthetics. , 2007, , .		0
38	Linear Electrode Depth Estimation in Rat Motor Cortex by Laminar Analysis of Ketamine-Xylazine-Induced Oscillations. , 2007, , .		1
39	"Talking Directly to the Brain: Implantable Microscale Neural Interfaces for Neuroprostheses and Neuromodulation". , 2007, , .		0
40	Fast wave propagation in auditory cortex of an awake cat using a chronic microelectrode array. Journal of Neural Engineering, 2007, 4, 68-78.	3.5	11
41	PRELIMINARY INVESTIGATION OF CALCIUM ALGINATE GEL AS A BIOCOMPATIBLE MATERIAL FOR ENDOVASCULAR ANEURYSM EMBOLIZATION IN VIVO. Neurosurgery, 2007, 60, 1119-1128.	1.1	33
42	The Electrocorticogram as a Feedback Control Signal for Deep Brain Stimulation of the Subthalamic Nucleus in the hemi-Parkinsonian Rat. , 2007, , .		1
43	Complex impedance spectroscopy for monitoring tissue responses to inserted neural implants. Journal of Neural Engineering, 2007, 4, 410-423.	3.5	353
44	Decoding the Direction of Movements from Interneuron and Projection Cell Populations in the Basal Ganglia. , 2007, , .		0
45	In-vivo Evaluation of Chronically Implanted Neural Microelectrode Arrays Modified with Poly (3,4-ethylenedioxythiophene) Nanotubes. , 2007, , .		17
46	In vivo stability and biocompatibility of implanted calcium alginate disks. Journal of Biomedical Materials Research - Part A, 2007, 83A, 1128-1137.	4.0	72
47	Neural probe design for reduced tissue encapsulation in CNS. Biomaterials, 2007, 28, 3594-3607.	11.4	417
48	Spatiotemporal pH dynamics following insertion of neural microelectrode arrays. Journal of Neuroscience Methods, 2007, 160, 276-287.	2.5	66
49	Local Drug Delivery System for Dynamic Control of Neural Environment using Parylene-Based Microelectrodes. , 2007, , 3542-3545.		3
50	Chronic neural recordings using silicon microelectrode arrays electrochemically deposited with a poly(3,4-ethylenedioxythiophene) (PEDOT) film. Journal of Neural Engineering, 2006, 3, 59-70.	3.5	570
51	Laminar Analysis of Movement Direction Information in Local Field Potentials of the Rat Motor Cortex. , 2006, 2006, 2589-92.		2
52	Voltage Pulses Change Neural Interface Properties and Improve Unit Recordings With Chronically Implanted Microelectrodes. IEEE Transactions on Biomedical Engineering, 2006, 53, 333-340.	4.2	113
53	Suitability of the Cingulate Cortex for Neural Control. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2006, 14, 401-409.	4.9	15
54	Optimization of Microelectrode Design for Cortical Recording Based on Thermal Noise Considerations. , 2006, 2006, 3361-4.		16

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55	Fabrication of Polymer Neural Probes with Sub-cellular Features for Reduced Tissue Encapsulation. , 2006, 2006, 4606-9.		27
56	The role of flexible polymer interconnects in chronic tissue response induced by intracortical microelectrodes - a modeling and an in vivo study. , 2006, 2006, 3588-91.		21
57	Neural Interface Dynamics Following Insertion of Hydrous Iridium Oxide Microelectrode Arrays. , 2006, 2006, 3178-81.		5
58	Laminar Analysis of Movement Direction Information in Local Field Potentials of the Rat Motor Cortex. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
59	Neural Interface Dynamics Following Insertion of Hydrous Iridium Oxide Microelectrode Arrays. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
60	Optimization of Microelectrode Design for Cortical Recording Based on Thermal Noise Considerations. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
61	The role of flexible polymer interconnects in chronic tissue response induced by intracortical microelectrodes - a modeling and an in vivo study. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
62	Fabrication of Polymer Neural Probes with Sub-cellular Features for Reduced Tissue Encapsulation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
63	Calcium Alginate Gel as a Biocompatible Material for Endovascular Arteriovenous Malformation Embolization: Six-month Results in an Animal Model. Neurosurgery, 2005, 56, 793-801.	1.1	45
64	Enhanced contrast sensitivity in auditory cortex as cats learn to discriminate sound frequencies. Cognitive Brain Research, 2005, 23, 171-184.	3.0	37
65	Repeated voltage biasing improves unit recordings by reducing resistive tissue impedances. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2005, 13, 160-165.	4.9	114
66	Cortical microstimulation in auditory cortex of rat elicits best-frequency dependent behaviors. Journal of Neural Engineering, 2005, 2, 42-51.	3.5	53
67	NaÃ¯ve coadaptive cortical control. Journal of Neural Engineering, 2005, 2, 52-63.	3.5	94
68	A finite-element model of the mechanical effects of implantable microelectrodes in the cerebral cortex. Journal of Neural Engineering, 2005, 2, 103-113.	3.5	317
69	Microstimulation in auditory cortex provides a substrate for detailed behaviors. Hearing Research, 2005, 210, 112-117.	2.0	66
70	Multi-site incorporation of bioactive matrices into MEMS-based neural probes. Journal of Neural Engineering, 2005, 2, L23-L28.	3.5	25
71	Characterization of Implantable Microfabricated Fluid Delivery Devices. IEEE Transactions on Biomedical Engineering, 2004, 51, 138-145.	4.2	41
72	Chronic Neural Recording Using Silicon-Substrate Microelectrode Arrays Implanted in Cerebral Cortex. IEEE Transactions on Biomedical Engineering, 2004, 51, 896-904.	4.2	410

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73	CNS RECORDING ELECTRODES AND TECHNIQUES. Series on Bioengineering and Biomedical Engineering, 2004, , 761-785.	0.1	4
74	NEXT GENERATION OF CORTICAL DEVICES. Series on Bioengineering and Biomedical Engineering, 2004, , 1197-1216.	0.1	1
75	Single electrode micro-stimulation of rat auditory cortex: an evaluation of behavioral performance. Hearing Research, 2003, 179, 62-71.	2.0	42
76	Silicon-substrate intracortical microelectrode arrays for long-term recording of neuronal spike activity in cerebral cortex. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2003, 11, 151-155.	4.9	329
77	In Vivo Assessment of Calcium Alginate Gel for Endovascular Embolization of a Cerebral Arteriovenous Malformation Model Using the Swine Rete Mirabile. Neurosurgery, 2002, 51, 453-459.	1.1	35
78	Flow properties of liquid calcium alginate polymer injected through medical microcatheters for endovascular embolization. Journal of Biomedical Materials Research Part B, 2002, 61, 533-540.	3.1	56
79	Calcium alginate gel: A biocompatible and mechanically stable polymer for endovascular embolization. Journal of Biomedical Materials Research Part B, 2001, 54, 76-86.	3.1	198
80	Functional connectivity in auditory cortex using chronic, multichannel unit recordings. Neurocomputing, 1999, 26-27, 347-354.	5.9	9
81	Stability of chronic multichannel neural recordings: Implications for a long-term neural interface. Neurocomputing, 1999, 26-27, 1069-1076.	5.9	49
82	Long-term neural recording characteristics of wire microelectrode arrays implanted in cerebral cortex. Brain Research Protocols, 1999, 4, 303-313.	1.6	359
83	Mechanisms of the cochlear nucleus octopus cellâ€™s onset response: Synaptic effectiveness and threshold. Journal of the Acoustical Society of America, 1998, 103, 1940-1950.	1.1	10
84	Sensitivity of the cochlear nucleus octopus cell to synaptic and membrane properties: A modeling study. Journal of the Acoustical Society of America, 1997, 102, 403-412.	1.1	12
85	A computational model of the cochlear nucleus octopus cell. Journal of the Acoustical Society of America, 1997, 102, 391-402.	1.1	16
86	Shared-stimulus driving and connectivity in groups of neurons in the dorsal cochlear nucleus. Hearing Research, 1991, 55, 24-38.	2.0	8