

Nick Donaldson

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/11154609/publications.pdf>

Version: 2024-02-01

76
papers

1,088
citations

430874

18
h-index

434195

31
g-index

77
all docs

77
docs citations

77
times ranked

836
citing authors

#	ARTICLE	IF	CITATIONS
1	The Design of a Low Noise, Multi-Channel Recording System for Use in Implanted Peripheral Nerve Interfaces. <i>Sensors</i> , 2022, 22, 3450.	3.8	0
2	Silicone encapsulation of thin-film SiO _x , SiO _x N _y and SiC for modern electronic medical implants: a comparative long-term ageing study. <i>Journal of Neural Engineering</i> , 2021, 18, 055003.	3.5	13
3	The effects of FES cycling combined with virtual reality racing biofeedback on voluntary function after incomplete SCI: a pilot study. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2019, 16, 149.	4.6	10
4	An ASIC for Recording and Stimulation in Stacked Microchannel Neural Interfaces. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2019, 13, 259-270.	4.0	11
5	Killing the goose. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2019, 233, 135-137.	1.8	1
6	A Capacitance-to-Digits Readout Circuit for Integrated Humidity Sensors for Monitoring the In-Package Humidity of Ultra-Small Medical Implants. , 2018, , .		1
7	Integrated Devices for Micro-Package Integrity Monitoring in mm-Scale Neural Implants. , 2018, , .		3
8	A MicroChannel Neural Interface ASIC. , 2018, , .		1
9	Four-Wire Interface ASIC for a Multi-Implant Link. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2017, 64, 3056-3067.	5.4	19
10	An Integrated Passive Phase-Shift Keying Modulator for Biomedical Implants With Power Telemetry Over a Single Inductive Link. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2017, 11, 64-77.	4.0	60
11	An implantable ENG detector with in-system velocity selective recording (VSR) capability. <i>Medical and Biological Engineering and Computing</i> , 2017, 55, 885-895.	2.8	3
12	An implantable wireless multi-channel neural prosthesis for epidural stimulation. , 2016, , .		2
13	An Implantable Stimulator With Safety Sensors in Standard CMOS Process for Active Books. <i>IEEE Sensors Journal</i> , 2016, 16, 7161-7172.	4.7	5
14	Advances in Scalable Implantable Systems for Neurostimulation Using Networked ASICs. <i>IEEE Design and Test</i> , 2016, 33, 8-23.	1.2	6
15	Flexible active electrode arrays with ASICs that fit inside the rat's spinal canal. <i>Biomedical Microdevices</i> , 2015, 17, 106.	2.8	16
16	A Summary of Current and New Methods in Velocity Selective Recording (VSR) of Electroneurogram (ENG). , 2015, , .		4
17	An Implantable Versatile Electrode-Driving ASIC for Chronic Epidural Stimulation in Rats. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2015, 9, 387-400.	4.0	21
18	A High-Power CMOS Class-D Amplifier for Inductive-Link Medical Transmitters. <i>IEEE Transactions on Power Electronics</i> , 2015, 30, 4477-4488.	7.9	15

#	ARTICLE	IF	CITATIONS
19	A CMOS Smart Temperature and Humidity Sensor with Combined Readout. <i>Sensors</i> , 2014, 14, 17192-17211.	3.8	17
20	Evaluation and optimization of the mechanical strength of bonds between metal foil and aluminium pads on thin ASICs using gold ball studs as micro-rivets. , 2014, , .		2
21	Fibre-selective discrimination of physiological ENG using velocity selective recording: Report on pilot rat experiments. , 2014, 2014, 2645-8.		8
22	An enhancement to velocity selective discrimination of neural recordings: Extraction of neuronal firing rates. , 2014, 2014, 4111-4.		5
23	Prolonging the Lifetime of PEEK Packages for Implantable Electronic Devices Using Commercially Available Vacuum Thin Film Coatings. <i>Journal of Microelectronics and Electronic Packaging</i> , 2014, 11, 128-136.	0.7	3
24	Controlled silicon IC thinning on individual die level for active implant integration using a purely mechanical process. , 2014, , .		5
25	A Capacitive Humidity Sensor Suitable for CMOS Integration. <i>IEEE Sensors Journal</i> , 2013, 13, 4487-4495.	4.7	17
26	A 1-Wire® communication interface between a control hub and locally powered epidural stimulators. , 2013, , .		0
27	Humidity-to-Frequency Sensor in CMOS Technology With Wireless Readout. <i>IEEE Sensors Journal</i> , 2013, 13, 900-908.	4.7	49
28	An Integrated Amplifier With Passive Neutralization of Myoelectric Interference From Neural Recording Tripoles. <i>IEEE Sensors Journal</i> , 2013, 13, 3236-3248.	4.7	27
29	Design of an implantable stimulator ASIC with self-adapting supply. , 2013, , .		2
30	A dedicated electrode driving ASIC for epidural spinal cord stimulation in rats. , 2013, , .		4
31	Fibre-selective recording from the peripheral nerves of frogs using a multi-electrode cuff. <i>Journal of Neural Engineering</i> , 2013, 10, 036016.	3.5	46
32	The Application of PEEK to the Packaging of Implantable Electronic Devices: Water Permeation Calculation Method and Maximum Achievable Lifetime with Desiccant. <i>Journal of Microelectronics and Electronic Packaging</i> , 2013, 10, 15-22.	0.7	9
33	An Implantable Closed-Loop Vestibular Prosthesis. <i>Biosystems and Biorobotics</i> , 2013, , 1321-1324.	0.3	0
34	A telemetry operated vestibular prosthesis. , 2012, , .		2
35	Active Books: The Design of an Implantable Stimulator That Minimizes Cable Count Using Integrated Circuits Very Close to Electrodes. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2012, 6, 216-227.	4.0	32
36	Moisture Ingress Into Packages With Walls of Varying Thickness And/OR Properties: A Simple Calculation Method. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2012, 2, 1796-1801.	2.5	26

#	ARTICLE	IF	CITATIONS
37	Towards a closed-loop transmitter system with integrated class-D amplifier for coupling-insensitive powering of implants. , 2012, , .		5
38	An implantable 3-D vestibular stimulator with neural recording. , 2012, , .		3
39	A fast passive phase shift keying modulator for inductively coupled implanted medical devices. , 2012, , .		14
40	The theory of velocity selective neural recording: a study based on simulation. Medical and Biological Engineering and Computing, 2012, 50, 309-318.	2.8	23
41	Safety of multi-channel stimulation implants: a single blocking capacitor per channel is not sufficient after single-fault failure. Medical and Biological Engineering and Computing, 2012, 50, 403-410.	2.8	4
42	The permeability of silicone rubber to metal compounds: Relevance to implanted devices. Journal of Biomedical Materials Research - Part A, 2012, 100A, 588-598.	4.0	15
43	Neural Interfaces for Implanted Stimulators. , 2011, , 749-766.		5
44	A stimulator ASIC with capability of neural recording during inter-phase delay. , 2011, , .		1
45	An Integrated Stimulator With DC-Isolation and Fine Current Control for Implanted Nerve Tripoles. IEEE Journal of Solid-State Circuits, 2011, 46, 1701-1714.	5.4	16
46	A Stimulator ASIC Featuring Versatile Management for Vestibular Protheses. IEEE Transactions on Biomedical Circuits and Systems, 2011, 5, 147-159.	4.0	46
47	The Limits of Hermeticity Test Methods for Micropackages. Artificial Organs, 2011, 35, 242-244.	1.9	37
48	An implantable humidity-to-frequency sensor in CMOS technology. , 2011, , .		5
49	Towards an adaptive modified quasi-tripole amplifier configuration for EMG neutralization in neural recording tripoles. , 2010, , .		4
50	Stimulation management for a multichannel vestibular neural prosthesis. , 2010, , .		6
51	A dual-mode neural stimulator capable of delivering constant current in current-mode and high stimulus charge in semi-voltage-mode. , 2010, , .		3
52	Comparison of methods for interference neutralisation in tripolar nerve recording cuffs. , 2010, , .		0
53	A current generator circuit for tripolar stimulation and insensitive to temperature and supply variations. , 2010, , .		0
54	High-Power Integrated Stimulator Output Stages With Floating Discharge Over a Wide Voltage Range for Nerve Stimulation. IEEE Transactions on Biomedical Circuits and Systems, 2010, 4, 39-48.	4.0	14

#	ARTICLE	IF	CITATIONS
55	A DC-isolated fine-controlled neural stimulator. , 2010, , .		2
56	Design of a stimulator ASIC for an implantable vestibular neural prosthesis. , 2010, , .		3
57	Design of a stimulator ASIC for active electrode books. , 2010, , .		1
58	An implanted system for multi-site nerve cuff-based ENG recording using velocity selectivity. Analog Integrated Circuits and Signal Processing, 2009, 58, 91-104.	1.4	13
59	Platinum electrode noise in the ENG spectrum. Medical and Biological Engineering and Computing, 2008, 46, 997-1003.	2.8	31
60	Design of an Implant for Preventing Incontinence After Spinal Cord Injury. Artificial Organs, 2008, 32, 586-591.	1.9	11
61	An Integrated Implantable Stimulator That is Fail-Safe Without Off-Chip Blocking-Capacitors. IEEE Transactions on Biomedical Circuits and Systems, 2008, 2, 231-244.	4.0	99
62	Implantable Stimulator Failures: Causes, Outcomes, and Solutions. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5787-90.	0.5	2
63	A Fully Integrated Fail-safe Stimulator Output Stage Dedicated to FES Stimulation. , 2007, , .		16
64	A Safe Transmission Strategy for Power and Data Recovery in Biomedical Implanted Devices. , 2007, , .		1
65	On the Noise Performance of Pt Electrodes. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 434-6.	0.5	6
66	Passive Neutralization of Myoelectric Interference From Neural Recording Tripoles. IEEE Transactions on Biomedical Engineering, 2007, 54, 1067-1074.	4.2	18
67	Myoelectric and Common-Mode Interference Rejection in a Quasi-Tripole Amplifier Configuration. , 2007, , .		1
68	An ENG Amplifier with Passive EMG Neutralization. , 2007, , .		2
69	Recent advances in the design of implantable stimulator output stages. , 2007, , .		8
70	Comparison of Transconductance Reduction Techniques for the Design of a Very Large Time-Constant CMOS Integrator. , 2006, , .		4
71	A Miniaturized, Power-Efficient Stimulator Output Stage Based on the Bridge Rectifier Circuit. , 2006, , .		0
72	Very Low-Noise ENG Amplifier System Using CMOS Technology. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2006, 14, 427-437.	4.9	49

#	ARTICLE	IF	CITATIONS
73	Velocity-Selective Recording from Frog Nerve Using a Multi-Contact Cuff Electrode. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
74	On Cuff Imbalance and Tripolar ENG Amplifier Configurations. IEEE Transactions on Biomedical Engineering, 2005, 52, 314-320.	4.2	40
75	Real Time Foot Drop Correction using Machine Learning and Natural Sensors. Neuromodulation, 2002, 5, 41-53.	0.8	44
76	Neuroprostheses for leg function after spinal-cord injury. Lancet, The, 1997, 350, 711.	13.7	86