Amir M Sodagar

List of Publications by Year
in descending order

40 papers	802 citations	759233 12 h-index	610901 24 g-index
40 all docs	40 docs citations	40 times ranked	762 citing authors

#	Article	IF	Citations
1	An Implantable 64-Channel Wireless Microsystem for Single-Unit Neural Recording. IEEE Journal of Solid-State Circuits, 2009, 44, 2591-2604.	5.4	194
2	A Fully Integrated Mixed-Signal Neural Processor for Implantable Multichannel Cortical Recording. IEEE Transactions on Biomedical Engineering, 2007, 54, 1075-1088.	4.2	113
3	A Wireless Implantable Microsystem for Multichannel Neural Recording. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 2565-2573.	4.6	84
4	Analysis and Design of Tunable Amplifiers for Implantable Neural Recording Applications. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2011, 1, 546-556.	3.6	82
5	Modeling and Experimental Validation of a Capacitive Link for Wireless Power Transfer to Biomedical Implants. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 923-927.	3.0	56
6	Data Compression in Brain-Machine/Computer Interfaces Based on the Walshâ€“Hadamard Transform. IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 129-137.	4.0	38
7	A Method for Compression of Intra-Cortically-Recorded Neural Signals Dedicated to Implantable Brainâ€“Machine Interfaces. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 485-497.	4.9	29
8	Nonlinear Signal-Specific ADC for Efficient Neural Recording in Brain-Machine Interfaces. IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 371-381.	4.0	28
9	Modeling and Characterization of Capacitive Elements With Tissue as Dielectric Material for Wireless Powering of Neural Implants. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 1093-1099.	4.9	28
10	Analysis and design of a highâ€compliance ultraâ€high output resistance current mirror employing positive shunt feedback. International Journal of Circuit Theory and Applications, 2015, 43, 1935-1952.	2.0	16
11	Versatile Stimulation Back-End With Programmable Exponential Current Pulse Shapes for a Retinal Visual Prosthesis. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 1243-1253.	4.9	14
12	Extremely-Wide-Range Supply-Independent CMOS Voltage References for Telemetry-Powering Applications. Analog Integrated Circuits and Signal Processing, 2006, 46, 253-261.	1.4	13
13	Temperature Compensation in CMOS Peaking Current References. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 1139-1143.	3.0	11
14	A framework for on-implant spike sorting based on salient feature selection. Nature Communications, 2020, 11, 3278.	12.8	11
15	A 128â€channel discrete cosine transformâ€based neural signal processor for implantable neural recording microsystems. International Journal of Circuit Theory and Applications, 2015, 43, 489-501.	2.0	9
16	A compact ECoG system with bidirectional capacitive data telemetry. , 2014, , .		8
17	Fully-Integrated, High-Efficiency, Multi-Output Charge Pump for High-Density Microstimulators. , 2018, , .		8
18	Fully-implantable, multi-channel, microstimulator with tracking supply ribbon and energy recovery. , 2016, 2016, 1818-1821.		6

#	Article	IF	Citations
19	Fully implantable, multiâ€channel microstimulator with tracking supply ribbon, multiâ€output charge pump and energy recovery. IET Circuits, Devices and Systems, 2021, 15, 104-120.	1.4	6
20	Reduced-Memory Direct Digital Frequency Synthesizer Using Parabolic Initial Guess. Analog Integrated Circuits and Signal Processing, 2003, 34, 89-96.	1.4	5
21	Chronic Neural Recording with a 64-Channel Cortical Microsystem. , 2007, , .		5
22	Multi-Channel ADC with Improved Bit Rate and Power Consumption for ElectroCorticoGraphy Systems. , 2019, , .		5
23	Wireless, miniaturized, semi-implantable electrocorticography microsystem validated in vivo. Scientific Reports, 2020, 10, 21261.	3.3	5
24	Hardware-Efficient, On-the-Fly, On-Implant Spike Sorter Dedicated to Brain-Implantable Microsystems. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2022, 30, 1098-1106.	3.1	4
25	A low-power, generic biostimulator with arbitrary pulse shape, based on a central control core. IEICE Electronics Express, 2013, 10, 20120868-20120868.	0.8	3
26	Spatial Redundancy Reduction in Multi-Channel Implantable Neural Recording Microsystems. , 2020, 2020, 898-901.		3
27	Anti-logarithmic quantization for data reduction in multi-channel intra-cortical neural recording implants. , 2012, , .		2
28	LOW-POWER, LOW-VOLTAGE, DUAL-OUTPUT, SECOND GENERATION CURRENT CONVEYOR AND ITS APPLICATION IN LOW-PASS FILTER DESIGN. Journal of Circuits, Systems and Computers, 2013, 22, 1350044.	1.5	2
29	SPV experiments for a retinal visual prosthesis: Introducing a new feature: â€œblinkingâ€• , 2017, , .		2
30	Design and Implementation of an Ultrasonic Link for Concurrent Telemetry of Multiple Data Streams to Implantable Biomedical Microsystems. , 2018, , .		2
31	High-Rate Ultrasonic Link for Data Telemetry to Implantable Biomedical Microsystems Using Pulse Excitation. , 2018, , .		2
32	A modified whitening transform for the reduction of spatial data redundancy in multichannel neural recording implants. International Journal of Circuit Theory and Applications, 2018, 46, 2283-2298.	2.0	2
33	Extracting Iso-Disparity Strip Width using a Statistical Model in a Stereo Vision System. , 2020, , .		2
34	Reduction of spatial data redundancy in implantable multi-channel neural recording microsystems. , 2014, , .		1
35	Implantable Biomedical Microsystems: A New Graduate Course in Biomedical Circuits and Systems. IEEE Transactions on Education, 2014, 57, 48-53.	2.4	1
36	Design, fabrication, and test of flexible thin-film microelectrode arrays for neural interfaces. , 2017, , .		1

#	Article	IF	Citations
37	Intertwined-pulse modulation for compressive data telemetry. Scientific Reports, 2022, 12, .	3.3	1
38	Design, Implementation, and Test of an Adiabatic Stimulation Back-End for Implantable Optical Stimulation Microsystems. , 2018, , .		0
39	Fast Detection of Ground Plane in Stereo Vision Systems Based on Iso-Disparity Strip Pattern. IEEE Sensors Journal, 2021, , 1-1.	4.7	0
40	Implantable microsystems for high-resolution interfacing to the brain. Basic and Clinical Neuroscience, 2013, 4, 186-7.	0.6	0