

Stephen E Sadow

List of Publications by Year in descending order

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45
papers

559
citations

840776

11
h-index

677142

22
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48
all docs

48
docs citations

48
times ranked

750
citing authors

#	ARTICLE	IF	CITATIONS
1	Silicon carbide: a versatile material for biosensor applications. <i>Biomedical Microdevices</i> , 2013, 15, 353-368.	2.8	172
2	A Comprehensive Study of Hydrogen Etching on the Major SiC Polytypes and Crystal Orientations. <i>Materials Science Forum</i> , 0, 615-617, 589-592.	0.3	46
3	Single-crystal Silicon Carbide: A Biocompatible and Hemocompatible Semiconductor for Advanced Biomedical Applications. <i>Materials Research Society Symposia Proceedings</i> , 2010, 1246, 1.	0.1	39
4	Wide-range (0.33%â€“100%) 3C-SiC resistive hydrogen gas sensor development. <i>Applied Physics Letters</i> , 2004, 85, 416-418.	3.3	27
5	Atomic layer deposition of Pb(Zr,Ti)Ox on 4H-SiC for metal-ferroelectric-insulator-semiconductor diodes. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	26
6	Fabrication of a Monolithic Implantable Neural Interface from Cubic Silicon Carbide. <i>Micromachines</i> , 2019, 10, 430.	2.9	25
7	Demonstration of a Robust All-Silicon-Carbide Intracortical Neural Interface. <i>Micromachines</i> , 2018, 9, 412.	2.9	24
8	Electronic Nose With Detection Method for Alcohol, Acetone, and Carbon Monoxide in Coronavirus Disease 2019 Breath Simulation Model. <i>IEEE Sensors Journal</i> , 2021, 21, 15935-15943.	4.7	23
9	Silicon Carbide Technology for Advanced Human Healthcare Applications. <i>Micromachines</i> , 2022, 13, 346.	2.9	22
10	Thermal detection mechanism of SiC based hydrogen resistive gas sensors. <i>Applied Physics Letters</i> , 2006, 89, 182102.	3.3	17
11	Culture of Mammalian Cells on Single Crystal SiC Substrates. <i>Materials Research Society Symposia Proceedings</i> , 2006, 950, 1.	0.1	15
12	Mechanical Properties of 3C-SiC Films for MEMS Applications. <i>Materials Research Society Symposia Proceedings</i> , 2007, 1049, 1.	0.1	14
13	Patterned substrate with inverted silicon pyramids for 3C-SiC epitaxial growth: A comparison with conventional (001) Si substrate. <i>Journal of Materials Research</i> , 2013, 28, 94-103.	2.6	14
14	Silicon Carbide and MRI: Towards Developing a MRI Safe Neural Interface. <i>Micromachines</i> , 2021, 12, 126.	2.9	10
15	A Flexible a-SiC-Based Neural Interface Utilizing Pyrolyzed-Photoresist Film (C) Active Sites. <i>Micromachines</i> , 2021, 12, 821.	2.9	10
16	Enhancement of X-ray-Excited Red Luminescence of Chromium-Doped Zinc Gallate via Ultrasmall Silicon Carbide Nanocrystals. <i>Chemistry of Materials</i> , 2021, 33, 2457-2465.	6.7	9
17	A Biocompatible SiC RF Antenna for In-Vivo Sensing Applications. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1433, 119.	0.1	8
18	Demonstration of 3C-SiC MEMS Structures on Polysilicon-on-oxide Substrates. <i>Materials Research Society Symposia Proceedings</i> , 2010, 1246, 1.	0.1	6

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19	Stress nature investigation on heteroepitaxial 3C-SiC film on (100) Si substrates. Journal of Materials Research, 2013, 28, 129-135.	2.6	6
20	Development of an all-SiC neuronal interface device. MRS Advances, 2016, 1, 3679-3684.	0.9	6
21	Biocompatibility Assessment of SiC Surfaces After Functionalization with Self Assembled Organic Monolayers. Materials Research Society Symposia Proceedings, 2009, 1235, 1.	0.1	5
22	The Development of Silicon Carbide Based Electrode Devices for Central Nervous System Biomedical Implants. Materials Research Society Symposia Proceedings, 2009, 1236, 1.	0.1	4
23	Surface morphology and structure of hydrogen etched 3C-SiC(001) on Si(001). Materials Research Society Symposia Proceedings, 2006, 911, 2.	0.1	3
24	SiC RF Sensor for Continuous Glucose Monitoring. MRS Advances, 2016, 1, 3691-3696.	0.9	3
25	Multiplication of Basal Plane Dislocations via Interaction with c-Axis Threading Dislocations in 4H-SiC. Materials Research Society Symposia Proceedings, 2006, 911, 4.	0.1	2
26	Atomic Structure of Non-Basal-Plane SiC Surfaces: Hydrogen Etching and Surface Phase Transformations. Materials Research Society Symposia Proceedings, 2006, 911, 1.	0.1	2
27	Study of the Adhesion and Biocompatibility of Nanocrystalline Diamond (NCD) Films on 3C-SiC Substrates. Materials Research Society Symposia Proceedings, 2009, 1203, 1.	0.1	2
28	Silicon Carbide Waveguides for Optogenetic Neural Stimulation. Materials Research Society Symposia Proceedings, 2012, 1433, 19.	0.1	2
29	Valence and conduction band offsets at beryllium oxide interfaces with silicon carbide and III-V nitrides. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2019, 37, 041206.	1.2	2
30	Recent advances in SiC biomedical devices. , 2022, , 1-48.		2
31	Thermal detection mechanism of SiC-Based Resistive Gas Sensors. Materials Research Society Symposia Proceedings, 2006, 911, 6.	0.1	1
32	Characterization of 3C-SiC (100) as a platform for detecting the onset of acute myocardial infarction (AMI). Materials Research Society Symposia Proceedings, 2012, 1433, 49.	0.1	1
33	Photosensitive Capacitance Effect In High-purity Semi-insulating 4H-SiC. Materials Research Society Symposia Proceedings, 2014, 1693, 148.	0.1	1
34	Investigating the surface changes of silicon in vitro within physiological environments for neurological application. Materials Research Society Symposia Proceedings, 2014, 1621, 237-242.	0.1	1
35	Development of SOI FETs Based on Core-Shell Si/SiC Nanowires for Sensing in Liquid Environments. Materials Science Forum, 2019, 963, 701-706.	0.3	1
36	Technical advance in silico and in vitro development of a new bipolar radiofrequency ablation device for renal denervation. BMC Cardiovascular Disorders, 2021, 21, 500.	1.7	1

#	ARTICLE	IF	CITATIONS
37	The Development of Monolithic Silicon Carbide Intracortical Neural Interfaces for Long-Term Human Implantation. Materials Science Forum, 0, 1062, 195-203.	0.3	1
38	Afterglow Thermal Oxidation of Silicon Carbide. Materials Research Society Symposia Proceedings, 2002, 742, 471.	0.1	0
39	Nondestructive defect measurement and surface analysis of 3C-SiC on Si (001) by electron channeling contrast imaging. Materials Research Society Symposia Proceedings, 2008, 1068, 1.	0.1	0
40	Editorial for the Special Issue on SiC Based Miniaturized Devices. Micromachines, 2020, 11, 405.	2.9	0
41	Silicon Carbide for Advanced In-Vivo Medical Devices. Engineering Proceedings, 2021, 4, .	0.4	0
42	Low Complexity Beam Steering Antenna Array Using Beamforming Network Subarrays. , 2022, , .		0
43	A monolithic "all-SiC" neural interface for long-term human applications. , 2022, , 125-159.		0
44	Ultrathin neural interfaces constructed from carbon and amorphous silicon carbide. , 2022, , 197-216.		0
45	The development of a fully MRI-compatible silicon carbide neural interface. , 2022, , 161-195.		0