John P Wikswo

List of Publications by Year
in descending order

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166 papers	7,430 citations	61984 43 h-index	66911 78 g-index
168 all docs	168 docs citations	168 times ranked	8087 citing authors

#	Article	IF	Citations
1	Using a magnetometer to image a twoâ€dimensional current distribution. Journal of Applied Physics, 1989, 65, 361-372.	2.5	395
2	Recreating blood-brain barrier physiology and structure on chip: A novel neurovascular microfluidic bioreactor. Biomicrofluidics, 2015, 9, 054124.	2.4	326
3	Scaling and systems biology for integrating multiple organs-on-a-chip. Lab on A Chip, 2013, 13, 3496.	6.0	253
4	Effects of flow and diffusion on chemotaxis studies in a microfabricated gradient generator. Lab on A Chip, 2005, 5, 611.	6.0	242
5	A Low Temperature Transfer of ALH84001 from Mars to Earth. Science, 2000, 290, 791-795.	12.6	205
6	Microfluidic Single-Cell Array Cytometry for the Analysis of Tumor Apoptosis. Analytical Chemistry, 2009, 81, 5517-5523.	6.5	197
7	Functional Coupling of Human Microphysiology Systems: Intestine, Liver, Kidney Proximal Tubule, Blood-Brain Barrier and Skeletal Muscle. Scientific Reports, 2017, 7, 42296.	3.3	193
8	The relevance and potential roles of microphysiological systems in biology and medicine. Experimental Biology and Medicine, 2014, 239, 1061-1072.	2.4	185
9	Engineering Challenges for Instrumenting and Controlling Integrated Organ-on-Chip Systems. IEEE Transactions on Biomedical Engineering, 2013, 60, 682-690.	4.2	155
10	SCANNING SQUID MICROSCOPY. Annual Review of Materials Research, 1999, 29, 117-148.	5.5	145
11	A Simplified, Fully Defined Differentiation Scheme for Producing Blood-Brain Barrier Endothelial Cells from Human iPSCs. Stem Cell Reports, 2019, 12, 1380-1388.	4.8	143
12	Experimental and Theoretical Analysis of Phase Singularity Dynamics in Cardiac Tissue. Journal of Cardiovascular Electrophysiology, 2001, 12, 716-722.	1.7	136
13	Microfluidic single cell arrays to interrogate signalling dynamics of individual, patient-derived hematopoietic stem cells. Lab on A Chip, 2009, 9, 2659.	6.0	134
14	Metabolic consequences of inflammatory disruption of the blood-brain barrier in an organ-on-chip model of the human neurovascular unit. Journal of Neuroinflammation, 2016, 13, 306.	7.2	129
15	Microfluidic platform for real-time signaling analysis of multiple single T cells in parallel. Lab on A Chip, 2008, 8, 1700.	6.0	127
16	Quatrefoil Reentry in Myocardinm: An Optical Imaging Study of the Induction Mechanism. Journal of Cardiovascular Electrophysiology, 1999, 10, 574-586.	1.7	116
17	Automated refinement and inference of analytical models for metabolic networks. Physical Biology, 2011, 8, 055011.	1.8	108
18	Measurement Techniques for Cellular Biomechanics In Vitro. Experimental Biology and Medicine, 2008, 233, 792-809.	2.4	107

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19	Amino acids as metabolic substrates during cardiac ischemia. Experimental Biology and Medicine, 2012, 237, 1369-1378.	2.4	107
20	Rapid stimulation causes electrical remodeling in cultured atrial myocytes. Journal of Molecular and Cellular Cardiology, 2005, 38, 299-308.	1.9	98
21	A Bidomain Model for the Extracellular Potential and Magnetic Field of Cardiac Tissue. IEEE Transactions on Biomedical Engineering, 1986, BME-33, 467-469.	4.2	97
22	I-Wire Heart-on-a-Chip I: Three-dimensional cardiac tissue constructs for physiology and pharmacology. Acta Biomaterialia, 2017, 48, 68-78.	8.3	97
23	NanoLiterBioReactor: Long-Term Mammalian Cell Culture at Nanofabricated Scale. Biomedical Microdevices, 2004, 6, 325-339.	2.8	90
24	Use of topological charge to determine filament location and dynamics in a numerical model of scroll wave activity. IEEE Transactions on Biomedical Engineering, 2002, 49, 1086-1093.	4.2	89
25	A Simple Nonlinear Model of Electrical Activity in the Intestine. Journal of Theoretical Biology, 2000, 204, 21-28.	1.7	87
26	The future of the EEG and MEG. Electroencephalography and Clinical Neurophysiology, 1993, 87, 1-9.	0.3	86
27	A microfluidic device to confine a single cardiac myocyte in a sub-nanoliter volume on planar microelectrodes for extracellular potential recordings. Lab on A Chip, 2004, 4, 357.	6.0	83
28	The magnetic field of a single axon: A volume conductor model. Mathematical Biosciences, 1985, 76, 1-36.	1.9	65
29	Possible sources of new information in the magnetocardiogram. Journal of Theoretical Biology, 1982, 95, 721-729.	1.7	63
30	Multianalyte microphysiometry as a tool in metabolomics and systems biology. Journal of Electroanalytical Chemistry, 2006, 587, 333-339.	3.8	63
31	Parallel Phosphatidylinositol 3-Kinase (PI3K)-dependent and Src-dependent Pathways Lead to CXCL8-mediated Rac2 Activation and Chemotaxis. Journal of Biological Chemistry, 2008, 283, 26538-26547.	3.4	61
32	Techniques and assays for the study of angiogenesis. Experimental Biology and Medicine, 2014, 239, 1476-1488.	2.4	61
33	A theoretical model for magneto-acoustic imaging of bioelectric currents. IEEE Transactions on Biomedical Engineering, 1994, 41, 723-728.	4.2	59
34	Magnetoenterography (MENG). Digestive Diseases and Sciences, 1996, 41, 2293-2301.	2.3	59
35	Magnetic determination of the spatial extent of a single cortical current source: a theoretical analysis. Electroencephalography and Clinical Neurophysiology, 1988, 69, 266-276.	0.3	57
36	Neurovascular unit on a chip: implications for translational applications. Stem Cell Research and Therapy, 2013, 4, S18.	5.5	56

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37	Spatial and temporal frequency-dependent conductivities in volume-conduction calculations for skeletal muscle. Mathematical Biosciences, 1988, 88, 159-189.	1.9	54
38	Modification of the Cytosensorâ„¢ microphysiometer to simultaneously measure extracellular acidification and oxygen consumption rates. Analytica Chimica Acta, 2003, 496, 93-101.	5.4	50
39	Fitting tissue chips and microphysiological systems into the grand scheme of medicine, biology, pharmacology, and toxicology. Experimental Biology and Medicine, 2017, 242, 1559-1572.	2.4	50
40	How Do Control-Based Approaches Enter into Biology?. Annual Review of Biomedical Engineering, 2011, 13, 369-396.	12.3	48
41	SiO2-coated porous anodic alumina membranes for high flow rate electroosmotic pumping. Nanotechnology, 2007, 18, 275705.	2.6	47
42	The IL Sequence in the LLKIL Motif in CXCR2 Is Required for Full Ligand-induced Activation of Erk, Akt, and Chemotaxis in HL60 Cells. Journal of Biological Chemistry, 2006, 281, 35931-35941.	3.4	46
43	I-Wire Heart-on-a-Chip II: Biomechanical analysis of contractile, three-dimensional cardiomyocyte tissue constructs. Acta Biomaterialia, 2017, 48, 79-87.	8.3	46
44	Noninvasive Diagnosis of Mesenteric Ischemia Using a SQUID Magnetometer. Annals of Surgery, 1995, 221, 696-705.	4.2	45
45	Predicting susceptibility to SARSâ€CoVâ€2 infection based on structural differences in ACE2 across species. FASEB Journal, 2020, 34, 15946-15960.	0.5	44
46	A model for compound action potentials and currents in a nerve bundle I: The forward calculation. Annals of Biomedical Engineering, 1991, 19, 43-72.	2.5	43
47	Examination of Optical Depth Effects on Fluorescence Imaging of Cardiac Propagation. Biophysical Journal, 2003, 85, 4134-4145.	0.5	43
48	Metabolic Discrimination of Select List Agents by Monitoring Cellular Responses in a Multianalyte Microphysiometer. Sensors, 2009, 9, 2117-2133.	3.8	43
49	Single-Nanocrystal Spectroscopy of White-Light-Emitting CdSe Nanocrystals. Journal of Physical Chemistry A, 2011, 115, 4076-4081.	2.5	43
50	Automated Cell Transport in Optical Tweezers-Assisted Microfluidic Chambers. IEEE Transactions on Automation Science and Engineering, 2013, 10, 980-989.	5.2	42
51	Grand Challenges in Interfacing Engineering With Life Sciences and Medicine. IEEE Transactions on Biomedical Engineering, 2013, 60, 589-598.	4.2	42
52	The magnetic field of cortical current sources: the application of a spatial filtering model to the forward and inverse problems. Electroencephalography and Clinical Neurophysiology, 1990, 76, 73-85.	0.3	41
53	Magnetic shield for wideâ€bandwidth magnetic measurements for nondestructive testing and biomagnetism. Review of Scientific Instruments, 1991, 62, 2654-2661.	1.3	40
54	Bipolar Stimulation of Cardiac Tissue Using an Anisotropic Bidomain Model. Journal of Cardiovascular Electrophysiology, 1994, 5, 258-267.	1.7	40

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55	Structuring Microbial Metabolic Responses to Multiplexed Stimuli via Self-Organizing Metabolomics Maps. Chemistry and Biology, 2015, 22, 661-670.	6.0	40
56	Scalar multipole expansions and their dipole equivalents. Journal of Applied Physics, 1985, 57, 4301-4308.	2.5	38
57	A comparison of scalar multipole expansions. Journal of Applied Physics, 1984, 56, 3039-3049.	2.5	37
58	Noninvasive detection of ischemic bowel. Journal of Vascular Surgery, 1999, 30, 309-319.	1.1	37
59	Phenotypic Mapping of Metabolic Profiles Using Self-Organizing Maps of High-Dimensional Mass Spectrometry Data. Analytical Chemistry, 2014, 86, 6563-6571.	6.5	37
60	A Microfabricated Nanocalorimeter:â€‰ Design, Characterization, and Chemical Calibration. Analytical Chemistry, 2008, 80, 2728-2733.	6.5	36
61	Quantification of Transmembrane Currents during Action Potential Propagation in the Heart. Biophysical Journal, 2013, 104, 268-278.	0.5	36
62	Capabilities of a Toroid-Amplifier System for Magnetic Measurement of Current in Biological Tissue. IEEE Transactions on Biomedical Engineering, 1986, BME-33, 910-921.	4.2	34
63	Integrated, High-Throughput, Multiomics Platform Enables Data-Driven Construction of Cellular Responses and Reveals Global Drug Mechanisms of Action. Journal of Proteome Research, 2017, 16, 1364-1375.	3.7	34
64	The electrical potential and the magnetic field of an axon in a nerve bundle. Mathematical Biosciences, 1985, 76, 37-57.	1.9	33
65	Diagnosing intestinal ischemia using a noncontact superconducting quantum interference device. American Journal of Surgery, 1994, 167, 586-592.	1.8	33
66	Panoramic Optical Imaging of Electrical Propagation in Isolated Heart. Journal of Biomedical Optics, 1999, 4, 200.	2.6	33
67	The effects of tubulin-binding agents on stretch-induced ventricular arrhythmias. European Journal of Pharmacology, 2001, 417, 131-140.	3.5	33
68	The effects of spiral anisotropy on the electric potential and the magnetic field at the apex of the heart. Mathematical Biosciences, 1988, 88, 191-221.	1.9	32
69	Thick-tissue bioreactor as a platform for long-term organotypic culture and drug delivery. Lab on A Chip, 2012, 12, 4560.	6.0	32
70	Microfluidic switching system for analyzing chemotaxis responses of wortmannin-inhibited HL-60 cells. Biomedical Microdevices, 2008, 10, 499-507.	2.8	31
71	A model for compound action potentials and currents in a nerve bundle III: A comparison of the conduction velocity distributions calculated from compound action currents and potentials. Annals of Biomedical Engineering, 1991, 19, 97-121.	2.5	30
72	Quantitative Systems Pharmacology for Neuroscience Drug Discovery and Development: Current Status, Opportunities, and Challenges. CPT: Pharmacometrics and Systems Pharmacology, 2020, 9, 5-20.	2.5	29

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73	Noninvasive magnetic detection of cardiac mechanical activity: Theory. Medical Physics, 1980, 7, 297-306.	3.0	28
74	A Low-Noise Low Input Impedance Amplifier for Magnetic Measurements of Nerve Action Currents. IEEE Transactions on Biomedical Engineering, 1983, BME-30, 215-221.	4.2	28
75	A metering rotary nanopump for microfluidic systems. Lab on A Chip, 2010, 10, 3218.	6.0	28
76	Metabolic consequences of interleukin-6 challenge in developing neurons and astroglia. Journal of Neuroinflammation, 2014, 11, 183.	7.2	28
77	Effects of Elevated Extracellular Potassium on the Stimulation Mechanism of Diastolic Cardiac Tissue. Biophysical Journal, 2003, 84, 3470-3479.	0.5	27
78	Noninvasive magnetic detection of cardiac mechanical activity: Experiments. Medical Physics, 1980, 7, 307-314.	3.0	26
79	Mobility of Protozoa through Narrow Channels. Applied and Environmental Microbiology, 2005, 71, 4628-4637.	3.1	26
80	Characterization of transport in microfluidic gradient generators. Microfluidics and Nanofluidics, 2008, 4, 273-285.	2.2	26
81	Dynamic Dosing Assay Relating Real-Time Respiration Responses of Staphylococcus aureus Biofilms to Changing Microchemical Conditions. Analytical Chemistry, 2013, 85, 5411-5419.	6.5	26
82	Real-Time Monitoring of Cellular Bioenergetics with a Multianalyte Screen-Printed Electrode. Analytical Chemistry, 2015, 87, 7857-7864.	6.5	26
83	Advances in bloodâ€“brain barrier modeling in microphysiological systems highlight critical differences in opioid transport due to cortisol exposure. Fluids and Barriers of the CNS, 2020, 17, 38.	5.0	26
84	Model-controlled hydrodynamic focusing to generate multiple overlapping gradients of surface-immobilized proteins in microfluidic devices. Lab on A Chip, 2008, 8, 238-244.	6.0	25
85	Magnetic Measurements of Action Currents in a Single Nerve Axon: A Core-Conductor Model. IEEE Transactions on Biomedical Engineering, 1985, BME-32, 136-140.	4.2	24
86	High Resolution Magnetic Images of Planar Wave Fronts Reveal Bidomain Properties of Cardiac Tissue. Biophysical Journal, 2004, 87, 4326-4332.	0.5	24
87	Virtual electrode effects around an artificial heterogeneity during field stimulation of cardiac tissue. Heart Rhythm, 2006, 3, 751-752.	0.7	24
88	Real-Time Cellular Exometabolome Analysis with a Microfluidic-Mass Spectrometry Platform. PLoS ONE, 2015, 10, e0117685.	2.5	24
89	The Potential of Dual Camera Systems for Multimodal Imaging of Cardiac Electrophysiology and Metabolism. Experimental Biology and Medicine, 2009, 234, 1355-1373.	2.4	23
90	A Microfluidic-Enabled Mechanical Microcompressor for the Immobilization of Live Single- and Multi-Cellular Specimens. Microscopy and Microanalysis, 2014, 20, 141-151.	0.4	23

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91	Ultrathin Polymer Membranes with Patterned, Micrometric Pores for Organs-on-Chips. ACS Applied Materials & Interfaces, 2016, 8, 22629-22636.	8.0	23
92	Organs-on-Chips as Bridges for Predictive Toxicology. Applied in Vitro Toxicology, 2016, 2, 97-102.	1.1	23
93	A spatio-temporal dipole simulation of gastrointestinal magnetic fields. IEEE Transactions on Biomedical Engineering, 2003, 50, 836-847.	4.2	22
94	The Magnetic Inverse Problem. , 0, , 139-267.		22
95	Circadian hormone control in a human-on-a-chip: In vitro biologyâ€™s ignored component?. Experimental Biology and Medicine, 2017, 242, 1714-1731.	2.4	22
96	Improved instrumentation for measuring the magnetic field of cellular action currents. Review of Scientific Instruments, 1982, 53, 1846-1850.	1.3	21
97	An improved method for magnetic identification and localization of cracks in conductors. Journal of Nondestructive Evaluation, 1993, 12, 109-119.	2.4	21
98	Interaction Dynamics of a Pair of Vortex Filament Rings. Physical Review Letters, 2003, 90, 238303.	7.8	21
99	The Effects of Cholera Toxin on Cellular Energy Metabolism. Toxins, 2010, 2, 632-648.	3.4	21
100	The microfluidic multitrap nanophysiometer for hematologic cancer cell characterization reveals temporal sensitivity of the calcein-AM efflux assay. Scientific Reports, 2014, 4, 5117.	3.3	20
101	A flexible, quantum dot-labeled cantilever post array for studying cellular microforces. Sensors and Actuators A: Physical, 2007, 136, 385-397.	4.1	19
102	Microfabricated scaffold-guided endothelial morphogenesis in three-dimensional culture. Biomedical Microdevices, 2011, 13, 837-846.	2.8	19
103	Magnetically attachable stencils and the non-destructive analysis of the contribution made by the underlying matrix to cell migration. Biomaterials, 2012, 33, 8189-8203.	11.4	19
104	Poly(vinyl alcohol) as a structure release layer for the microfabrication of polymer composite structures. Journal of Micromechanics and Microengineering, 2007, 17, N41-N46.	2.6	18
105	Biomolecular Signatures of Diabetic Wound Healing by Structural Mass Spectrometry. Analytical Chemistry, 2013, 85, 3651-3659.	6.5	18
106	Biology coming full circle: Joining the whole and the parts. Experimental Biology and Medicine, 2015, 240, 3-7.	2.4	18
107	Apodized pickup coils for improved spatial resolution of SQUID magnetometers. Review of Scientific Instruments, 1990, 61, 2439-2448.	1.3	17
108	Modeling the measurements of cellular fluxes in microbioreactor devices using thin enzyme electrodes. Journal of Mathematical Chemistry, 2011, 49, 251-275.	1.5	17

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109	Several small shocks beat one big one. Nature, 2011, 475, 181-182.	27.8	17
110	The Microbiome and the Gutâ€“Liverâ€“Brain Axis for CentralÂNervousÂSystem Clinical Pharmacology: Challenges in Specifying and Integrating In Vitro and In Silico Models. Clinical Pharmacology and Therapeutics, 2020, 108, 929-948.	4.7	17
111	A model for compound action potentials and currents in a nerve bundle II: A sensitivity analysis of model parameters for the forward and inverse calculations. Annals of Biomedical Engineering, 1991, 19, 73-96.	2.5	16
112	A Dual-Column Solid Phase Extraction Strategy for Online Collection and Preparation of Continuously Flowing Effluent Streams for Mass Spectrometry. Analytical Chemistry, 2012, 84, 8467-8474.	6.5	16
113	Systems-level view of cocaine addiction: The interconnection of the immune and nervous systems. Experimental Biology and Medicine, 2014, 239, 1433-1442.	2.4	16
114	High-resolution high-speed synchronous epifluorescence imaging of cardiac activation. Review of Scientific Instruments, 1997, 68, 213-217.	1.3	15
115	Protozoan Migration in Bent Microfluidic Channels. Applied and Environmental Microbiology, 2008, 74, 1945-1949.	3.1	15
116	Multichamber multipotentiostat system for cellular microphysiometry. Sensors and Actuators B: Chemical, 2014, 204, 536-543.	7.8	15
117	Study of Chemotaxis and Cellâ€“Cell Interactions in Cancer with Microfluidic Devices. Methods in Enzymology, 2016, 570, 19-45.	1.0	15
118	Engineered microfluidic bioreactor for examining the three-dimensional breast tumor microenvironment. Biomicrofluidics, 2018, 12, 034102.	2.4	15
119	Optimization of a clipâ€on SQUID current probe. Review of Scientific Instruments, 1983, 54, 1017-1022.	1.3	14
120	A mathematical analysis of the magnetic field produced by flaws in two-dimensional current-carrying conductors. Journal of Nondestructive Evaluation, 1992, 11, 89-101.	2.4	14
121	A New Finite-Element Approach to Reconstruct a Bounded and Discontinuous Two-Dimensional Current Image from a Magnetic Field Map. Journal of Computational Physics, 1995, 122, 150-164.	3.8	14
122	Techniques for depth-selective, low-frequency eddy current analysis for SQUID-based nondestructive testing. Journal of Nondestructive Evaluation, 1995, 14, 149-167.	2.4	13
123	Tape underlayment rotary-node (TURN) valves for simple on-chip microfluidic flow control. Biomedical Microdevices, 2010, 12, 135-144.	2.8	13
124	Superconducting quantum interference device magnetometer for diagnosis of ischemia caused by mesenteric venous thrombosis. World Journal of Surgery, 1997, 21, 173-177.	1.6	12
125	Magnetic Fields Induced by Electrochemical Reactions:Â Aluminum Alloy Corrosion Sensing by SQUID Magnetometry on a Macroscopic Scale. Journal of Physical Chemistry B, 2002, 106, 12549-12555.	2.6	12
126	Experimental Evidence of Improved Transthoracic Defibrillation With Electroporation-Enhancing Pulses. IEEE Transactions on Biomedical Engineering, 2006, 53, 1901-1910.	4.2	12

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127	Effects of unipolar stimulation on voltage and calcium distributions in the isolated rabbit heart. Basic Research in Cardiology, 2008, 103, 537-551.	5.9	12
128	Looking to the future of organs-on-chips: interview with Professor John Wikswo. Future Science OA, 2017, 3, FSO163.	1.9	12
129	Rapid prototyping of cell culture microdevices using parylene-coated 3D prints. Lab on A Chip, 2021, 21, 4814-4822.	6.0	12
130	High-Resolution High-Speed Panoramic Cardiac Imaging System. IEEE Transactions on Biomedical Engineering, 2008, 55, 1241-1243.	4.2	11
131	Partial independence of bioelectric and biomagnetic fields and its implications for encephalography and cardiography. Physical Review E, 2009, 79, 051908.	2.1	11
132	Macro to nano: a simple method for transporting cultured cells from milliliter scale to nanoliter scale. Experimental Biology and Medicine, 2010, 235, 777-783.	2.4	11
133	Regional increase of extracellular potassium leads to electrical instability and reentry occurrence through the spatial heterogeneity of APD restitution. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 301, H209-H220.	3.2	11
134	Consistent system of rectangular and spherical co-ordinates for electrocardiography and magnetocardiography. Medical and Biological Engineering and Computing, 1977, 15, 413-415.	2.8	10
135	A numerical study of the use of magnetometers to detect hidden flaws in conducting objects. Journal of Applied Physics, 1996, 79, 2122-2135.	2.5	10
136	Spatiotemporal Dynamics of Damped Propagation in Excitable Cardiac Tissue. Physical Review Letters, 2003, 91, 208104.	7.8	10
137	Development of novel murine mammary imaging windows to examine wound healing effects on leukocyte trafficking in mammary tumors with intravital imaging. Intravital, 2016, 5, e1125562.	2.0	10
138	External Control of the GAL Network in S. cerevisiae: A View from Control Theory. PLoS ONE, 2011, 6, e19353.	2.5	10
139	Three-Dimensional Visualization of Phase Singularities on the Isolated Rabbit Heart. Journal of Cardiovascular Electrophysiology, 2002, 13, 1311-1311.	1.7	9
140	Voltage-calcium state-space dynamics during initiation of reentry. Heart Rhythm, 2006, 3, 247-248.	0.7	9
141	Migration of isogenic cell lines quantified by dynamic multivariate analysis of single-cell motility. Cell Adhesion and Migration, 2008, 2, 127-136.	2.7	9
142	Measurements of Transmembrane Potential and Magnetic Field at the Apex of the Heart. Biophysical Journal, 2010, 99, 3113-3118.	0.5	9
143	Effect of the heart-lung boundary on the magnetocardiogram. Journal of Electrocardiology, 1986, 19, 23-32.	0.9	8
144	Quantum Dot Probes for Monitoring Dynamic Cellular Response: Reporters of T Cell Activation. IEEE Transactions on Nanobioscience, 2006, 5, 268-272.	3.3	8

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145	Remote detection of corrosion activity by SQUID magnetometry across a multiphase medium under electrolyte flow conditions. Corrosion Science, 2005, 47, 621-633.	6.6	7
146	Micro-Mirrors for Nanoscale Three-Dimensional Microscopy. ACS Nano, 2009, 3, 493-497.	14.6	7
147	A bistable, multiport valve enables microformulators creating microclinical analyzers that reveal aberrant glutamate metabolism in astrocytes derived from a tuberous sclerosis patient. Sensors and Actuators B: Chemical, 2021, 341, 129972.	7.8	7
148	A microfluidic system that replicates pharmacokinetic (PK) profiles in vitro improves prediction of in vivo efficacy in preclinical models. PLoS Biology, 2022, 20, e3001624.	5.6	7
149	Remote sensing of aluminum alloy corrosion by SQUID magnetometry. Journal of Solid State Electrochemistry, 2004, 8, 435-441.	2.5	6
150	Magnetometric corrosion sensing under hydrodynamic conditions. Journal of Solid State Electrochemistry, 2006, 10, 700-707.	2.5	6
151	A high-voltage cardiac stimulator for field shocks of a whole heart in a bath. Review of Scientific Instruments, 2007, 78, 104302.	1.3	4
152	Gastrointestinal arrhythmias are associated with statistically significant fluctuations in systemic information dimension. Physiological Measurement, 2008, 29, N33-N40.	2.1	4
153	Biomagnetic Detection of Injury Currents in Rabbit Ischemic Intestine. Digestive Diseases and Sciences, 2005, 50, 1561-1568.	2.3	3
154	Universal serial bus powered and controlled isolated constant-current physiological stimulator. Review of Scientific Instruments, 2008, 79, 126103.	1.3	3
155	Diastolic Field Stimulation: the Role of Shock Duration in Epicardial Activation and Propagation. Biophysical Journal, 2013, 105, 523-532.	0.5	3
156	Glutamine and glutamate limit the shortening of action potential duration in anoxia-challenged rabbit hearts. Physiological Reports, 2015, 3, e12535.	1.7	3
157	Virtual Electrode Theory of Pacing. , 2021, , 147-179.		3
158	Delayed Activation and Retrograde Propagation in Cardiac Muscle: Implication of Virtual Electrode Effects. Annals of Biomedical Engineering, 2000, 28, 1318-1325.	2.5	1
159	Optical mapping of calcium distribution reveals make and break excitation modes. Heart Rhythm, 2005, 2, S216.	0.7	1
160	Transmembrane Current Imaging in the Heart during Pacing and Fibrillation. Biophysical Journal, 2013, 105, 1710-1719.	0.5	1
161	SQUID measurements for thermal aging of stator windings. AIP Conference Proceedings, 2001, , .	0.4	0
162	SQUID measurements of magnetization for a magnetically tagged composite material. AIP Conference Proceedings, 2001, , .	0.4	0

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163	NanoLiterBioReactor: Monitoring of Long-Term Mammalian Cell Physiology at Nanofabricated Scale. Materials Research Society Symposia Proceedings, 2004, 823, W9.5.1/O5.5.1.	0.1	0
164	NanoLiterBioReactor: Monitoring of Long-Term Mammalian Cell Physiology at Nanofabricated Scale. Materials Research Society Symposia Proceedings, 2004, 820, 126.	0.1	0
165	Pachinko biology: Gambling on single cells. , 2009, , .		0
166	Organotypic Neurovascular Unit and Electrochemical Platform for Predictive Toxicology. ECS Meeting Abstracts, 2019, MA2019-02, 2423-2423.	0.0	0