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	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
2	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
3	Virtual Electrode Theory of Pacing. , 2021, , 147-179.		3
4	Rapid prototyping of cell culture microdevices using parylene-coated 3D prints. Lab on A Chip, 2021, 21, 4814-4822.	6.0	12
5	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
6	Predicting susceptibility to SARSâ€CoVâ€2 infection based on structural differences in ACE2 across species. FASEB Journal, 2020, 34, 15946-15960.	0.5	44
7	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
8	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
9	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
10	Organotypic Neurovascular Unit and Electrochemical Platform for Predictive Toxicology. ECS Meeting Abstracts, 2019, MA2019-02, 2423-2423.	0.0	0
11	Engineered microfluidic bioreactor for examining the three-dimensional breast tumor microenvironment. Biomicrofluidics, 2018, 12, 034102.	2.4	15
12	Looking to the future of organs-on-chips: interview with Professor John Wikswo. Future Science OA, 2017, 3, FSO163.	1.9	12
13	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
14	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
15	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
16	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
17	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
18	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

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19	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
20	Study of Chemotaxis and Cellâ€“Cell Interactions in Cancer with Microfluidic Devices. Methods in Enzymology, 2016, 570, 19-45.	1.0	15
21	Ultrathin Polymer Membranes with Patterned, Micrometric Pores for Organs-on-Chips. ACS Applied Materials & Interfaces, 2016, 8, 22629-22636.	8.0	23
22	Organs-on-Chips as Bridges for Predictive Toxicology. Applied in Vitro Toxicology, 2016, 2, 97-102.	1.1	23
23	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
24	Glutamine and glutamate limit the shortening of action potential duration in anoxia-challenged rabbit hearts. Physiological Reports, 2015, 3, e12535.	1.7	3
25	Recreating blood-brain barrier physiology and structure on chip: A novel neurovascular microfluidic bioreactor. Biomicrofluidics, 2015, 9, 054124.	2.4	326
26	Real-Time Cellular Exometabolome Analysis with a Microfluidic-Mass Spectrometry Platform. PLoS ONE, 2015, 10, e0117685.	2.5	24
27	Biology coming full circle: Joining the whole and the parts. Experimental Biology and Medicine, 2015, 240, 3-7.	2.4	18
28	Real-Time Monitoring of Cellular Bioenergetics with a Multianalyte Screen-Printed Electrode. Analytical Chemistry, 2015, 87, 7857-7864.	6.5	26
29	Structuring Microbial Metabolic Responses to Multiplexed Stimuli via Self-Organizing Metabolomics Maps. Chemistry and Biology, 2015, 22, 661-670.	6.0	40
30	Metabolic consequences of interleukin-6 challenge in developing neurons and astroglia. Journal of Neuroinflammation, 2014, 11, 183.	7.2	28
31	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
32	Multichamber multipotentiostat system for cellular microphysiometry. Sensors and Actuators B: Chemical, 2014, 204, 536-543.	7.8	15
33	Phenotypic Mapping of Metabolic Profiles Using Self-Organizing Maps of High-Dimensional Mass Spectrometry Data. Analytical Chemistry, 2014, 86, 6563-6571.	6.5	37
34	The relevance and potential roles of microphysiological systems in biology and medicine. Experimental Biology and Medicine, 2014, 239, 1061-1072.	2.4	185
35	Techniques and assays for the study of angiogenesis. Experimental Biology and Medicine, 2014, 239, 1476-1488.	2.4	61
36	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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37	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
38	Scaling and systems biology for integrating multiple organs-on-a-chip. Lab on A Chip, 2013, 13, 3496.	6.0	253
39	Quantification of Transmembrane Currents during Action Potential Propagation in the Heart. Biophysical Journal, 2013, 104, 268-278.	0.5	36
40	Engineering Challenges for Instrumenting and Controlling Integrated Organ-on-Chip Systems. IEEE Transactions on Biomedical Engineering, 2013, 60, 682-690.	4.2	155
41	Automated Cell Transport in Optical Tweezers-Assisted Microfluidic Chambers. IEEE Transactions on Automation Science and Engineering, 2013, 10, 980-989.	5.2	42
42	Neurovascular unit on a chip: implications for translational applications. Stem Cell Research and Therapy, 2013, 4, S18.	5.5	56
43	Transmembrane Current Imaging in the Heart during Pacing and Fibrillation. Biophysical Journal, 2013, 105, 1710-1719.	0.5	1
44	Diastolic Field Stimulation: the Role of Shock Duration in Epicardial Activation and Propagation. Biophysical Journal, 2013, 105, 523-532.	0.5	3
45	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
46	Biomolecular Signatures of Diabetic Wound Healing by Structural Mass Spectrometry. Analytical Chemistry, 2013, 85, 3651-3659.	6.5	18
47	Grand Challenges in Interfacing Engineering With Life Sciences and Medicine. IEEE Transactions on Biomedical Engineering, 2013, 60, 589-598.	4.2	42
48	Thick-tissue bioreactor as a platform for long-term organotypic culture and drug delivery. Lab on A Chip, 2012, 12, 4560.	6.0	32
49	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
50	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
51	Amino acids as metabolic substrates during cardiac ischemia. Experimental Biology and Medicine, 2012, 237, 1369-1378.	2.4	107
52	Single-Nanocrystal Spectroscopy of White-Light-Emitting CdSe Nanocrystals. Journal of Physical Chemistry A, 2011, 115, 4076-4081.	2.5	43
53	How Do Control-Based Approaches Enter into Biology?. Annual Review of Biomedical Engineering, 2011, 13, 369-396.	12.3	48
54	Automated refinement and inference of analytical models for metabolic networks. Physical Biology, 2011, 8, 055011.	1.8	108

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55	Modeling the measurements of cellular fluxes in microbioreactor devices using thin enzyme electrodes. Journal of Mathematical Chemistry, 2011, 49, 251-275.	1.5	17
56	Microfabricated scaffold-guided endothelial morphogenesis in three-dimensional culture. Biomedical Microdevices, 2011, 13, 837-846.	2.8	19
57	Several small shocks beat one big one. Nature, 2011, 475, 181-182.	27.8	17
58	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
59	External Control of the GAL Network in S. cerevisiae: A View from Control Theory. PLoS ONE, 2011, 6, e19353.	2.5	10
60	Tape underlayment rotary-node (TURN) valves for simple on-chip microfluidic flow control. Biomedical Microdevices, 2010, 12, 135-144.	2.8	13
61	The Effects of Cholera Toxin on Cellular Energy Metabolism. Toxins, 2010, 2, 632-648.	3.4	21
62	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
63	Measurements of Transmembrane Potential and Magnetic Field at the Apex of the Heart. Biophysical Journal, 2010, 99, 3113-3118.	0.5	9
64	A metering rotary nanopump for microfluidic systems. Lab on A Chip, 2010, 10, 3218.	6.0	28
65	Pachinko biology: Gambling on single cells. , 2009, , .		0
66	Partial independence of bioelectric and biomagnetic fields and its implications for encephalography and cardiography. Physical Review E, 2009, 79, 051908.	2.1	11
67	Metabolic Discrimination of Select List Agents by Monitoring Cellular Responses in a Multianalyte Microphysiometer. Sensors, 2009, 9, 2117-2133.	3.8	43
68	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
69	Microfluidic Single-Cell Array Cytometry for the Analysis of Tumor Apoptosis. Analytical Chemistry, 2009, 81, 5517-5523.	6.5	197
70	Micro-Mirrors for Nanoscale Three-Dimensional Microscopy. ACS Nano, 2009, 3, 493-497.	14.6	7
71	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
72	Microfluidic switching system for analyzing chemotaxis responses of wortmannin-inhibited HL-60 cells. Biomedical Microdevices, 2008, 10, 499-507.	2.8	31

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73	Characterization of transport in microfluidic gradient generators. Microfluidics and Nanofluidics, 2008, 4, 273-285.	2.2	26
74	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
75	High-Resolution High-Speed Panoramic Cardiac Imaging System. IEEE Transactions on Biomedical Engineering, 2008, 55, 1241-1243.	4.2	11
76	A Microfabricated Nanocalorimeter:â€‰ Design, Characterization, and Chemical Calibration. Analytical Chemistry, 2008, 80, 2728-2733.	6.5	36
77	Microfluidic platform for real-time signaling analysis of multiple single T cells in parallel. Lab on A Chip, 2008, 8, 1700.	6.0	127
78	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
79	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
80	Protozoan Migration in Bent Microfluidic Channels. Applied and Environmental Microbiology, 2008, 74, 1945-1949.	3.1	15
81	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
82	Measurement Techniques for Cellular Biomechanics In Vitro. Experimental Biology and Medicine, 2008, 233, 792-809.	2.4	107
83	Gastrointestinal arrhythmias are associated with statistically significant fluctuations in systemic information dimension. Physiological Measurement, 2008, 29, N33-N40.	2.1	4
84	Universal serial bus powered and controlled isolated constant-current physiological stimulator. Review of Scientific Instruments, 2008, 79, 126103.	1.3	3
85	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
86	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
87	SiO2-coated porous anodic alumina membranes for high flow rate electroosmotic pumping. Nanotechnology, 2007, 18, 275705.	2.6	47
88	A flexible, quantum dot-labeled cantilever post array for studying cellular microforces. Sensors and Actuators A: Physical, 2007, 136, 385-397.	4.1	19
89	Voltage-calcium state-space dynamics during initiation of reentry. Heart Rhythm, 2006, 3, 247-248.	0.7	9
90	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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91	Virtual electrode effects around an artificial heterogeneity during field stimulation of cardiac tissue. Heart Rhythm, 2006, 3, 751-752.	0.7	24
92	Multianalyte microphysiometry as a tool in metabolomics and systems biology. Journal of Electroanalytical Chemistry, 2006, 587, 333-339.	3.8	63
93	Magnetometric corrosion sensing under hydrodynamic conditions. Journal of Solid State Electrochemistry, 2006, 10, 700-707.	2.5	6
94	Experimental Evidence of Improved Transthoracic Defibrillation With Electroporation-Enhancing Pulses. IEEE Transactions on Biomedical Engineering, 2006, 53, 1901-1910.	4.2	12
95	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
96	Biomagnetic Detection of Injury Currents in Rabbit Ischemic Intestine. Digestive Diseases and Sciences, 2005, 50, 1561-1568.	2.3	3
97	Mobility of Protozoa through Narrow Channels. Applied and Environmental Microbiology, 2005, 71, 4628-4637.	3.1	26
98	Optical mapping of calcium distribution reveals make and break excitation modes. Heart Rhythm, 2005, 2, S216.	0.7	1
99	Effects of flow and diffusion on chemotaxis studies in a microfabricated gradient generator. Lab on A Chip, 2005, 5, 611.	6.0	242
100	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
101	Rapid stimulation causes electrical remodeling in cultured atrial myocytes. Journal of Molecular and Cellular Cardiology, 2005, 38, 299-308.	1.9	98
102	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
103	NanoLiterBioReactor: Monitoring of Long-Term Mammalian Cell Physiology at Nanofabricated Scale. Materials Research Society Symposia Proceedings, 2004, 820, 126.	0.1	0
104	NanoLiterBioReactor: Long-Term Mammalian Cell Culture at Nanofabricated Scale. Biomedical Microdevices, 2004, 6, 325-339.	2.8	90
105	Remote sensing of aluminum alloy corrosion by SQUID magnetometry. Journal of Solid State Electrochemistry, 2004, 8, 435-441.	2.5	6
106	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
107	High Resolution Magnetic Images of Planar Wave Fronts Reveal Bidomain Properties of Cardiac Tissue. Biophysical Journal, 2004, 87, 4326-4332.	0.5	24
108	A spatio-temporal dipole simulation of gastrointestinal magnetic fields. IEEE Transactions on Biomedical Engineering, 2003, 50, 836-847.	4.2	22

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109	Modification of the Cytosensorâ„¢ microphysiometer to simultaneously measure extracellular acidification and oxygen consumption rates. Analytica Chimica Acta, 2003, 496, 93-101.	5.4	50
110	Effects of Elevated Extracellular Potassium on the Stimulation Mechanism of Diastolic Cardiac Tissue. Biophysical Journal, 2003, 84, 3470-3479.	0.5	27
111	Examination of Optical Depth Effects on Fluorescence Imaging of Cardiac Propagation. Biophysical Journal, 2003, 85, 4134-4145.	0.5	43
112	Interaction Dynamics of a Pair of Vortex Filament Rings. Physical Review Letters, 2003, 90, 238303.	7.8	21
113	Spatiotemporal Dynamics of Damped Propagation in Excitable Cardiac Tissue. Physical Review Letters, 2003, 91, 208104.	7.8	10
114	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
115	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
116	Three-Dimensional Visualization of Phase Singularities on the Isolated Rabbit Heart. Journal of Cardiovascular Electrophysiology, 2002, 13, 1311-1311.	1.7	9
117	SQUID measurements for thermal aging of stator windings. AIP Conference Proceedings, 2001, , .	0.4	0
118	SQUID measurements of magnetization for a magnetically tagged composite material. AIP Conference Proceedings, 2001, , .	0.4	0
119	Experimental and Theoretical Analysis of Phase Singularity Dynamics in Cardiac Tissue. Journal of Cardiovascular Electrophysiology, 2001, 12, 716-722.	1.7	136
120	The effects of tubulin-binding agents on stretch-induced ventricular arrhythmias. European Journal of Pharmacology, 2001, 417, 131-140.	3.5	33
121	A Simple Nonlinear Model of Electrical Activity in the Intestine. Journal of Theoretical Biology, 2000, 204, 21-28.	1.7	87
122	Delayed Activation and Retrograde Propagation in Cardiac Muscle: Implication of Virtual Electrode Effects. Annals of Biomedical Engineering, 2000, 28, 1318-1325.	2.5	1
123	A Low Temperature Transfer of ALH84001 from Mars to Earth. Science, 2000, 290, 791-795.	12.6	205
124	Panoramic Optical Imaging of Electrical Propagation in Isolated Heart. Journal of Biomedical Optics, 1999, 4, 200.	2.6	33
125	Quatrefoil Reentry in Myocardinm: An Optical Imaging Study of the Induction Mechanism. Journal of Cardiovascular Electrophysiology, 1999, 10, 574-586.	1.7	116
126	SCANNING SQUID MICROSCOPY. Annual Review of Materials Research, 1999, 29, 117-148.	5.5	145

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127	Noninvasive detection of ischemic bowel. Journal of Vascular Surgery, 1999, 30, 309-319.	1.1	37
128	High-resolution high-speed synchronous epifluorescence imaging of cardiac activation. Review of Scientific Instruments, 1997, 68, 213-217.	1.3	15
129	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
130	Magnetoenterography (MENG). Digestive Diseases and Sciences, 1996, 41, 2293-2301.	2.3	59
131	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
132	Noninvasive Diagnosis of Mesenteric Ischemia Using a SQUID Magnetometer. Annals of Surgery, 1995, 221, 696-705.	4.2	45
133	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
134	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
135	Bipolar Stimulation of Cardiac Tissue Using an Anisotropic Bidomain Model. Journal of Cardiovascular Electrophysiology, 1994, 5, 258-267.	1.7	40
136	Diagnosing intestinal ischemia using a noncontact superconducting quantum interference device. American Journal of Surgery, 1994, 167, 586-592.	1.8	33
137	A theoretical model for magneto-acoustic imaging of bioelectric currents. IEEE Transactions on Biomedical Engineering, 1994, 41, 723-728.	4.2	59
138	An improved method for magnetic identification and localization of cracks in conductors. Journal of Nondestructive Evaluation, 1993, 12, 109-119.	2.4	21
139	The future of the EEG and MEG. Electroencephalography and Clinical Neurophysiology, 1993, 87, 1-9.	0.3	86
140	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
141	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
142	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
143	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
144	Magnetic shield for wideâ€bandwidth magnetic measurements for nondestructive testing and biomagnetism. Review of Scientific Instruments, 1991, 62, 2654-2661.	1.3	40

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145	Apodized pickup coils for improved spatial resolution of SQUID magnetometers. Review of Scientific Instruments, 1990, 61, 2439-2448.	1.3	17
146	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
147	Using a magnetometer to image a twoâ€dimensional current distribution. Journal of Applied Physics, 1989, 65, 361-372.	2.5	395
148	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
149	Spatial and temporal frequency-dependent conductivities in volume-conduction calculations for skeletal muscle. Mathematical Biosciences, 1988, 88, 159-189.	1.9	54
150	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
151	Effect of the heart-lung boundary on the magnetocardiogram. Journal of Electrocardiology, 1986, 19, 23-32.	0.9	8
152	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
153	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
154	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
155	Scalar multipole expansions and their dipole equivalents. Journal of Applied Physics, 1985, 57, 4301-4308.	2.5	38
156	The magnetic field of a single axon: A volume conductor model. Mathematical Biosciences, 1985, 76, 1-36.	1.9	65
157	The electrical potential and the magnetic field of an axon in a nerve bundle. Mathematical Biosciences, 1985, 76, 37-57.	1.9	33
158	A comparison of scalar multipole expansions. Journal of Applied Physics, 1984, 56, 3039-3049.	2.5	37
159	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
160	Optimization of a clipâ€on SQUID current probe. Review of Scientific Instruments, 1983, 54, 1017-1022.	1.3	14
161	Improved instrumentation for measuring the magnetic field of cellular action currents. Review of Scientific Instruments, 1982, 53, 1846-1850.	1.3	21
162	Possible sources of new information in the magnetocardiogram. Journal of Theoretical Biology, 1982, 95, 721-729.	1.7	63

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163	Noninvasive magnetic detection of cardiac mechanical activity: Experiments. Medical Physics, 1980, 7, 307-314.	3.0	26
164	Noninvasive magnetic detection of cardiac mechanical activity: Theory. Medical Physics, 1980, 7, 297-306.	3.0	28
165	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
166	The Magnetic Inverse Problem. , 0, , 139-267.		22