Evan W Miller

List of Publications by Year
in descending order

78 papers	5,579 citations	109137 35 h-index	82410 72 g-index
116 all docs	116 docs citations	116 times ranked	7188 citing authors

#	Article	IF	Citations
1	Molecular Prosthetics for Long-Term Functional Imaging with Fluorescent Reporters. ACS Central Science, 2022, 8, 118-121.	5.3	12
2	Pulsus Alternans in Cardiogenic Shock Recapitulated in Single Cell Fluorescence Imaging of a Patientâ€™s Cardiomyocyte. Circulation: Heart Failure, 2022, 15, CIRCHEARTFAILURE121008855.	1.6	5
3	Neurophotonic Tools for Microscopic Measurements and Manipulation: Status Report. Neurophotonics, 2022, 9, 013001.	1.7	17
4	Metabolically driven maturation of human-induced-pluripotent-stem-cell-derived cardiac microtissues on microfluidic chips. Nature Biomedical Engineering, 2022, 6, 372-388.	11.6	42
5	Fluorescent Reporters for Sensing Membrane Potential: Tools for Bioelectricity. Bioelectricity, 2022, 4, 108-116.	0.6	3
6	Electrically controlling and optically observing the membrane potential of supported lipid bilayers. Biophysical Journal, 2022, 121, 2624-2637.	0.2	3
7	Bioorthogonal, Fluorogenic Targeting of Voltage-Sensitive Fluorophores for Visualizing Membrane Potential Dynamics in Cellular Organelles. Journal of the American Chemical Society, 2022, 144, 12138-12146.	6.6	16
8	Flipping the Switch: Reverse-Demand Voltage-Sensitive Fluorophores. Journal of the American Chemical Society, 2022, 144, 13050-13054.	6.6	7
9	Fluorescence lifetime predicts performance of voltage sensitive fluorophores in cardiomyocytes and neurons. RSC Chemical Biology, 2021, 2, 248-258.	2.0	8
10	VoltageFluor dyes and fluorescence lifetime imaging for optical measurement of membrane potential. Methods in Enzymology, 2021, 653, 267-293.	0.4	3
11	A silicon-rhodamine chemical-genetic hybrid for far red voltage imaging from defined neurons in brain slice. RSC Chemical Biology, 2021, 2, 1594-1599.	2.0	4
12	Imaging Reversible Mitochondrial Membrane Potential Dynamics with a Masked Rhodamine Voltage Reporter. Journal of the American Chemical Society, 2021, 143, 4095-4099.	6.6	38
13	Imaging Spontaneous Neuronal Activity with Voltageâ€Sensitive Dyes. Current Protocols, 2021, 1, e48.	1.3	0
14	Small Moleculeâ€“Protein Hybrid for Voltage Imaging via Quenching of Bioluminescence. ACS Sensors, 2021, 6, 1857-1863.	4.0	6
15	Phosphonofluoresceins: Synthesis, Spectroscopy, and Applications. Journal of the American Chemical Society, 2021, 143, 6194-6201.	6.6	24
16	Optical Spike Detection and Connectivity Analysis With a Far-Red Voltage-Sensitive Fluorophore Reveals Changes to Network Connectivity in Development and Disease. Frontiers in Neuroscience, 2021, 15, 643859.	1.4	8
17	In vitro safety â€œclinical trialâ€•of the cardiac liability of drug polytherapy. Clinical and Translational Science, 2021, 14, 1155-1165.	1.5	11
18	Integrated Isogenic Human Induced Pluripotent Stem Cellâ€“Based Liver and Heart Microphysiological Systems Predict Unsafe Drugâ€“Drug Interaction. Frontiers in Pharmacology, 2021, 12, 667010.	1.6	29

#	ARTICLE	IF	CITATIONS
19	Measuring Absolute Membrane Potential Across Space and Time. Annual Review of Biophysics, 2021, 50, 447-468.	4.5	16
20	Imaging Voltage in Complete Neuronal Networks Within Patterned Microislands Reveals Preferential Wiring of Excitatory Hippocampal Neurons. Frontiers in Neuroscience, 2021, 15, 643868.	1.4	6
21	All-Optical Electrophysiology in hiPSC-Derived Neurons With Synthetic Voltage Sensors. Frontiers in Cellular Neuroscience, 2021, 15, 671549.	1.8	3
22	Vinyl-Fluorene Molecular Wires for Voltage Imaging with Enhanced Sensitivity and Reduced Phototoxicity. Journal of the American Chemical Society, 2021, 143, 11903-11907.	6.6	7
23	Origins of Ca²⁺ Imaging with Fluorescent Indicators. Biochemistry, 2021, 60, 3547-3554.	1.2	11
24	Heart Muscle Microphysiological System for Cardiac Liability Prediction of Repurposed COVID-19 Therapeutics. Frontiers in Pharmacology, 2021, 12, 684252.	1.6	12
25	Optical Estimation of Absolute Membrane Potential Using One- and Two-Photon Fluorescence Lifetime Imaging Microscopy. Bioelectricity, 2021, 3, 197-203.	0.6	5
26	Voltage Imaging with a NIR-Absorbing Phosphine Oxide Rhodamine Voltage Reporter. Journal of the American Chemical Society, 2021, 143, 2304-2314.	6.6	13
27	A high-affinity, partial antagonist effect of 3,4-diaminopyridine mediates action potential broadening and enhancement of transmitter release at NMJs. Journal of Biological Chemistry, 2021, 296, 100302.	1.6	15
28	Voltage Imaging in Drosophila Using a Hybrid Chemical-Genetic Rhodamine Voltage Reporter. Frontiers in Neuroscience, 2021, 15, 754027.	1.4	4
29	Multimodal on-axis platform for all-optical electrophysiology with near-infrared probes in human stem-cell-derived cardiomyocytes. Progress in Biophysics and Molecular Biology, 2020, 154, 62-70.	1.4	46
30	An Activity-Based Methionine Bioconjugation Approach To Developing Proximity-Activated Imaging Reporters. ACS Central Science, 2020, 6, 32-40.	5.3	20
31	Covalently Tethered Rhodamine Voltage Reporters for High Speed Functional Imaging in Brain Tissue. Journal of the American Chemical Society, 2020, 142, 614-622.	6.6	44
32	Electrophysiology, Unplugged: Imaging Membrane Potential with Fluorescent Indicators. Accounts of Chemical Research, 2020, 53, 11-19.	7.6	70
33	Activity-Based Sensing with a Metal-Directed Acyl Imidazole Strategy Reveals Cell Type-Dependent Pools of Labile Brain Copper. Journal of the American Chemical Society, 2020, 142, 14993-15003.	6.6	44
34	Monitoring neuronal activity with voltage-sensitive fluorophores. Methods in Enzymology, 2020, 640, 185-204.	0.4	1
35	Water-Soluble BODIPY Photocages with Tunable Cellular Localization. Journal of the American Chemical Society, 2020, 142, 4970-4974.	6.6	109
36	Development of Lipid-Coated Semiconductor Nanosensors for Recording of Membrane Potential in Neurons. ACS Photonics, 2020, 7, 1141-1152.	3.2	11

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37	The Frog Motor Nerve Terminal Has Very Brief Action Potentials and Three Electrical Regions Predicted to Differentially Control Transmitter Release. Journal of Neuroscience, 2020, 40, 3504-3516.	1.7	10
38	Making Life Visible: Fluorescent Indicators to Probe Membrane Potential. , 2020, , 89-104.		3
39	Kilohertz frame-rate two-photon tomography. Nature Methods, 2019, 16, 778-786.	9.0	122
40	BODIPY Fluorophores for Membrane Potential Imaging. Journal of the American Chemical Society, 2019, 141, 12824-12831.	6.6	66
41	Improved Surface Functionalization and Characterization of Membrane-Targeted Semiconductor Voltage Nanosensors. Journal of Physical Chemistry Letters, 2019, 10, 3906-3913.	2.1	12
42	Kinetic and photonic techniques to study chemotactic signaling in sea urchin sperm. Methods in Cell Biology, 2019, 151, 487-517.	0.5	15
43	Synthesis of Sulfonated Carbofluoresceins for Voltage Imaging. Journal of the American Chemical Society, 2019, 141, 6631-6638.	6.6	37
44	New Molecular Scaffolds for Fluorescent Voltage Indicators. ACS Chemical Biology, 2019, 14, 390-396.	1.6	23
45	Spying on Neuronal Membrane Potential with Genetically Targetable Voltage Indicators. Journal of the American Chemical Society, 2019, 141, 1349-1358.	6.6	55
46	Optical estimation of absolute membrane potential using fluorescence lifetime imaging. ELife, 2019, 8, .	2.8	46
47	hPSC-Derived Striatal Cells Generated Using a Scalable 3D Hydrogel Promote Recovery in a Huntington Disease Mouse Model. Stem Cell Reports, 2018, 10, 1481-1491.	2.3	46
48	Imaging Ca2+ with a Fluorescent Rhodol. Biochemistry, 2018, 57, 237-240.	1.2	10
49	Dopaminergic Neurons Transplanted Using Cellâ€Instructive Biomaterials Alleviate Parkinsonism in Rodents. Advanced Functional Materials, 2018, 28, 1804144.	7.8	19
50	Geometry-Dependent Arrhythmias in Electrically Excitable Tissues. Cell Systems, 2018, 7, 359-370.e6.	2.9	30
51	<i>In Vivo</i> Two-Photon Voltage Imaging with Sulfonated Rhodamine Dyes. ACS Central Science, 2018, 4, 1371-1378.	5.3	41
52	Efficient generation of hPSC-derived midbrain dopaminergic neurons in a fully defined, scalable, 3D biomaterial platform. Scientific Reports, 2017, 7, 40573.	1.6	51
53	Voltage-sensitive rhodol with enhanced two-photon brightness. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2813-2818.	3.3	52
54	Engineered hydrogels increase the post-transplantation survival of encapsulated hESC-derived midbrain dopaminergic neurons. Biomaterials, 2017, 136, 1-11.	5.7	97

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55	Defined and Scalable Differentiation of Human Oligodendrocyte Precursors from Pluripotent Stem Cells in a 3D Culture System. Stem Cell Reports, 2017, 8, 1770-1783.	2.3	59
56	(Near-Infra) Red Means STOP: Shutting Down Cancer with NIR Light. ACS Central Science, 2017, 3, 266-268.	5.3	0
57	A Rationally Designed, General Strategy for Membrane Orientation of Photoinduced Electron Transfer-Based Voltage-Sensitive Dyes. ACS Chemical Biology, 2017, 12, 407-413.	1.6	40
58	Voltage Imaging: Pitfalls and Potential. Biochemistry, 2017, 56, 5171-5177.	1.2	85
59	Fluorogenic Targeting of Voltage-Sensitive Dyes to Neurons. Journal of the American Chemical Society, 2017, 139, 17334-17340.	6.6	49
60	An Automated Platform for Assessment of Congenital and Drug-Induced Arrhythmia with hiPSC-Derived Cardiomyocytes. Frontiers in Physiology, 2017, 8, 766.	1.3	64
61	Small molecule fluorescent voltage indicators for studying membrane potential. Current Opinion in Chemical Biology, 2016, 33, 74-80.	2.8	108
62	Isomerically Pure Tetramethylrhodamine Voltage Reporters. Journal of the American Chemical Society, 2016, 138, 9085-9088.	6.6	52
63	Improved PeT Molecules for Optically Sensing Voltage in Neurons. Journal of the American Chemical Society, 2015, 137, 1817-1824.	6.6	100
64	A Small-Molecule Photoactivatable Optical Sensor of Transmembrane Potential. Journal of the American Chemical Society, 2015, 137, 10894-10897.	6.6	46
65	A Photostable Silicon Rhodamine Platform for Optical Voltage Sensing. Journal of the American Chemical Society, 2015, 137, 10767-10776.	6.6	186
66	meso-Methylhydroxy BODIPY: a scaffold for photo-labile protecting groups. Chemical Communications, 2015, 51, 6369-6372.	2.2	107
67	The Relationship between Membrane Potential and Calcium Dynamics in Glucose-Stimulated Beta Cell Syncytium in Acute Mouse Pancreas Tissue Slices. PLoS ONE, 2013, 8, e82374.	1.1	72
68	Optically monitoring voltage in neurons by photo-induced electron transfer through molecular wires. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2114-2119.	3.3	253
69	Calcium-dependent copper redistributions in neuronal cells revealed by a fluorescent copper sensor and X-ray fluorescence microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5980-5985.	3.3	182
70	Light-Activated Regulation of Cofilin Dynamics Using a Photocaged Hydrogen Peroxide Generator. Journal of the American Chemical Society, 2010, 132, 17071-17073.	6.6	32
71	Aquaporin-3 mediates hydrogen peroxide uptake to regulate downstream intracellular signaling. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15681-15686.	3.3	595
72	Preparation and use of Leadfluor-1, a synthetic fluorophore for live-cell lead imaging. Nature Protocols, 2008, 3, 777-783.	5.5	24

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73	A Fluorescent Sensor for Imaging Reversible Redox Cycles in Living Cells. Journal of the American Chemical Society, 2007, 129, 3458-3459.	6.6	132
74	Fluorescent probes for nitric oxide and hydrogen peroxide in cell signaling. Current Opinion in Chemical Biology, 2007, 11, 620-625.	2.8	157
75	Molecular imaging of hydrogen peroxide produced for cell signaling. Nature Chemical Biology, 2007, 3, 263-267.	3.9	406
76	A Selective Turn-On Fluorescent Sensor for Imaging Copper in Living Cells. Journal of the American Chemical Society, 2006, 128, 10-11.	6.6	748
77	Preparation and use of Coppersensor-1, a synthetic fluorophore for live-cell copper imaging. Nature Protocols, 2006, 1, 824-827.	5.5	99
78	Boronate-Based Fluorescent Probes for Imaging Cellular Hydrogen Peroxide. Journal of the American Chemical Society, 2005, 127, 16652-16659.	6.6	537