Andrew S French

List of Publications by Year
in descending order

91 papers	1,449 citations	331259 21 h-index	414034 32 g-index
93 all docs	93 docs citations	93 times ranked	745 citing authors

#	Article	IF	Citations
1	Mechanotransduction channel Piezo is widely expressed in the spider, Cupiennius salei, mechanosensory neurons and central nervous system. Scientific Reports, 2021, 11, 7994.	1.6	3
2	Gene transcription changes in a locust model of noise-induced deafness. Journal of Neurophysiology, 2021, 125, 2264-2278.	0.9	3
3	RNA interference supports a role for Nanchungâ€“Inactive in mechanotransduction by the cockroach, Periplaneta americana, tactile spine. Invertebrate Neuroscience, 2020, 20, 1.	1.8	9
4	Physiological Basis of Noise-Induced Hearing Loss in a Tympanal Ear. Journal of Neuroscience, 2020, 40, 3130-3140.	1.7	12
5	Suppression of Gq and PLC gene expression has a small effect on quantum bumps in vivo in Periplaneta americana. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2020, 206, 597-610.	0.7	4
6	Changes in electrophysiological properties of photoreceptors in Periplaneta americana associated with the loss of screening pigment. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2018, 204, 915-928.	0.7	2
7	Electrical interactions between photoreceptors in the compound eye of Periplaneta americana. Journal of Experimental Biology, 2018, 221, .	0.8	4
8	Nonlinearization: naturalistic stimulation and nonlinear dynamic behavior in a spider mechanoreceptor. Biological Cybernetics, 2018, 112, 403-413.	0.6	3
9	Multiple Biogenic Amine Receptor Types Modulate Spider, Cupiennius salei, Mechanosensory Neurons. Frontiers in Physiology, 2018, 9, 857.	1.3	3
10	Effects of phase correlations in naturalistic stimuli on quantitative information coding by fly photoreceptors. Journal of Neurophysiology, 2018, 119, 2276-2290.	0.9	4
11	Phenotypic plasticity in Periplaneta americana photoreceptors. Journal of General Physiology, 2018, 150, 1386-1396.	0.9	6
12	EAG channels expressed in microvillar photoreceptors are unsuited to diurnal vision. Journal of Physiology, 2017, 595, 5465-5479.	1.3	13
13	Distinct roles of light-activated channels TRP and TRPL in photoreceptors of Periplaneta americana. Journal of General Physiology, 2017, 149, 455-464.	0.9	13
14	The distribution of cholinergic neurons and their co-localization with FMRFamide, in central and peripheral neurons of the spider Cupiennius salei. Cell and Tissue Research, 2017, 370, 71-88.	1.5	10
15	Expression of Cysâ€loop receptor subunits and acetylcholine binding protein in the mechanosensory neurons, glial cells, and muscle tissue of the spider Cupiennius salei. Journal of Comparative Neurology, 2017, 525, 1139-1154.	0.9	6
16	Static and Dynamic Adaptation of Insect Photoreceptor Responses to Naturalistic Stimuli. Frontiers in Physiology, 2016, 7, 477.	1.3	5
17	Transcriptome analysis and RNA interference of cockroach phototransduction indicate three opsins and suggest a major role for TRPL channels. Frontiers in Physiology, 2015, 6, 207.	1.3	42
18	Naturalistic stimulation changes the dynamic response of action potential encoding in a mechanoreceptor. Frontiers in Physiology, 2015, 6, 303.	1.3	9

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19	Transcriptome Analysis of the Central and Peripheral Nervous Systems of the Spider Cupiennius salei Reveals Multiple Putative Cys-Loop Ligand Gated Ion Channel Subunits and an Acetylcholine Binding Protein. PLoS ONE, 2015, 10, e0138068.	1.1	14
20	Carbon Dioxide and Fruit Odor Transduction in Drosophila Olfactory Neurons. What Controls their Dynamic Properties?. PLoS ONE, 2014, 9, e86347.	1.1	5
21	Upstream open reading frames and Kozak regions of assembled transcriptome sequences from the spider Cupiennius salei. Selection or chance?. Gene, 2014, 539, 203-208.	1.0	8
22	Equilibrating errors: reliable estimation of information transmission rates in biological systems with spectral analysis-based methods. Biological Cybernetics, 2014, 108, 305-320.	0.6	4
23	Activation of GABAA receptors modulates all stages of mechanoreception in spider mechanosensory neurons. Journal of Neurophysiology, 2012, 107, 196-204.	0.9	7
24	GABA and glutamate receptors have different effects on excitability and are differentially regulated by calcium in spider mechanosensory neurons. European Journal of Neuroscience, 2012, 36, 3602-3614.	1.2	15
25	Sensory Receptors and Mechanotransduction. , 2012, , 633-647.		3
26	Transcriptome walking: a laboratory-oriented GUI-based approach to mRNA identification from deep-sequenced data. BMC Research Notes, 2012, 5, 673.	0.6	13
27	Calcium buffering and clearance in spider mechanosensory neurons. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2012, 198, 477-483.	0.7	1
28	Measuring entropy in continuous and digitally filtered neural signals. Journal of Neuroscience Methods, 2011, 196, 81-87.	1.3	6
29	Dynamic Characterization ofDrosophilaAntennal Olfactory Neurons Indicates Multiple Opponent Signaling Pathways in Odor Discrimination. Journal of Neuroscience, 2011, 31, 861-869.	1.7	8
30	Feedback modulation of transduction by calcium in a spider mechanoreceptor. European Journal of Neuroscience, 2010, 32, 1473-1479.	1.2	4
31	Mechanoreception. , 2009, , 610-611.		1
32	GABAergic Excitation of Spider Mechanoreceptors Increases Information Capacity by Increasing Entropy Rather than Decreasing Jitter. Journal of Neuroscience, 2009, 29, 10989-10994.	1.7	7
33	Random Stimulation of Spider Mechanosensory Neurons Reveals Long-Lasting Excitation by GABA and Muscimol. Journal of Neurophysiology, 2009, 101, 54-66.	0.9	20
34	The systems analysis approach to mechanosensory coding. Biological Cybernetics, 2009, 100, 417-426.	0.6	8
35	Two Interacting Olfactory Transduction Mechanisms Have Linked Polarities and Dynamics in Drosophila melanogaster Antennal Basiconic Sensilla Neurons. Journal of Neurophysiology, 2009, 102, 214-223.	0.9	21
36	A digital sequence method of dynamic olfactory characterization. Journal of Neuroscience Methods, 2008, 171, 98-103.	1.3	11

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37	Dynamic properties of Drosophila olfactory electroantennograms. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2008, 194, 483-489.	0.7	24
38	The Power Law of Sensory Adaptation: Simulation by a Model of Excitability in Spider Mechanoreceptor Neurons. Annals of Biomedical Engineering, 2008, 36, 153-161.	1.3	22
39	Regional distribution of calcium elevation during sensory transduction in spider mechanoreceptor neurons. Neuroscience Research, 2008, 62, 278-285.	1.0	4
40	Contributions of Voltage- and Ca2+-Activated Conductances to GABA-Induced Depolarization in Spider Mechanosensory Neurons. Journal of Neurophysiology, 2008, 99, 1596-1606.	0.9	8
41	Mechanosensitive Ion Channels of Spiders: Mechanical Coupling, Electrophysiology, and Synaptic Modulation. Current Topics in Membranes, 2007, 59, 1-20.	0.5	3
42	A New Method for Wide Frequency Range Dynamic Olfactory Stimulation and Characterization. Chemical Senses, 2007, 32, 681-688.	1.1	17
43	Ratiometric calcium concentration estimation using LED excitation during mechanotransduction in single sensory neurons. Journal of Neuroscience Methods, 2007, 164, 255-260.	1.3	8
44	Principal dynamic mode analysis of action potential firing in a spider mechanoreceptor. Biological Cybernetics, 2007, 96, 113-127.	0.6	13
45	Shunting versus inactivation: Simulation of GABAergic inhibition in spider mechanoreceptors suggests that either is sufficient. Neuroscience Research, 2006, 55, 189-196.	1.0	16
46	Acetylcholine receptors in spider peripheral mechanosensilla. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2006, 192, 85-95.	0.7	11
47	Calcium concentration changes during sensory transduction in spider mechanoreceptor neurons. European Journal of Neuroscience, 2005, 22, 3171-3178.	1.2	8
48	Slow adaptation in spider mechanoreceptor neurons. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2005, 191, 403-411.	0.7	13
49	Dynamic Properties of Antennal Responses to Pheromone in Two Moth Species. Journal of Neurophysiology, 2005, 93, 2233-2239.	0.9	37
50	Spider Peripheral Mechanosensory Neurons Are Directly Innervated and Modulated by Octopaminergic Efferents. Journal of Neuroscience, 2005, 25, 1588-1598.	1.7	52
51	Interactions Between Light-Induced Currents, Voltage-Gated Currents, and Input Signal Properties in Drosophila Photoreceptors. Journal of Neurophysiology, 2004, 91, 2696-2706.	0.9	16
52	Dendritic excitability and localization of GABA-mediated inhibition in spider mechanoreceptor neurons. European Journal of Neuroscience, 2004, 20, 59-65.	1.2	17
53	Mechanotransduction in spider slit sensilla. Canadian Journal of Physiology and Pharmacology, 2004, 82, 541-548.	0.7	10
54	A context-free data compression approach to measuring information transmission by action potentials. BioSystems, 2003, 69, 55-61.	0.9	3

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55	Active Signal Conduction through the Sensory Dendrite of a Spider Mechanoreceptor Neuron. Journal of Neuroscience, 2003, 23, 6096-6101.	1.7	21
56	Shaker K+ Channels Contribute Early Nonlinear Amplification to the Light Response in Drosophila Photoreceptors. Journal of Neurophysiology, 2003, 90, 2014-2021.	0.9	23
57	Postsynaptic Dorsal Column and Cuneate Correlations in the Raccoon: A Re-evaluation by Parallel-Cascade Analysis. Journal of Neurophysiology, 2002, 88, 3372-3376.	0.9	0
58	Simulation of Different Firing Patterns in Paired Spider Mechanoreceptor Neurons: The Role of Na⁺Channel Inactivation. Journal of Neurophysiology, 2002, 87, 1363-1368.	0.9	34
59	From stress and strain to spikes: mechanotransduction in spider slit sensilla. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2002, 188, 739-752.	0.7	57
60	Peripheral GABAergic inhibition of spider mechanosensory afferents. European Journal of Neuroscience, 2002, 16, 96-104.	1.2	30
61	Extracellular acid increases the open probability of transduction channels in spider mechanoreceptors. European Journal of Neuroscience, 2002, 16, 2311-2316.	1.2	11
62	Postsynaptic dorsal column and cuneate neurons in raccoon: comparison of response properties and cross-correlation analysis. Brain Research, 2001, 914, 134-148.	1.1	7
63	Inactivation of Voltage-Activated Na+ Currents Contributes to Different Adaptation Properties of Paired Mechanosensory Neurons. Journal of Neurophysiology, 2001, 85, 1595-1602.	0.9	25
64	Sensory Receptors and Mechanotransduction. , 2001, , 761-773.		2
65	Frequency response functions and information capacities of paired spider mechanoreceptor neurons. Biological Cybernetics, 2001, 85, 293-300.	0.6	37
66	Predicting the Responses of Mechanoreceptor Neurons to Physiological Inputs by Nonlinear System Identification. Annals of Biomedical Engineering, 2001, 29, 187-194.	1.3	14
67	Low-Voltage-Activated Calcium Current Does Not Regulate the Firing Behavior in Paired Mechanosensory Neurons With Different Adaptation Properties. Journal of Neurophysiology, 2000, 83, 746-753.	0.9	32
68	Voltage-Activated Potassium Outward Currents in Two Types of Spider Mechanoreceptor Neurons. Journal of Neurophysiology, 1999, 81, 2937-2944.	0.9	34
69	Principal Dynamic Mode Analysis of Nonlinear Transduction in a Spider Mechanoreceptor. Annals of Biomedical Engineering, 1999, 27, 391-402.	1.3	11
70	Primary culture of antennal mechanoreceptor neurons of Manduca sexta. Cell and Tissue Research, 1999, 297, 301-309.	1.5	9
71	Estimated single-channel conductance of mechanically-activated channels in a spider mechanoreceptor. Brain Research, 1999, 826, 230-235.	1.1	12
72	Nonlinear Analysis of Neuronal Systems. , 1999, , 627-640.		15

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73	Information transmission at 500 bits/s by action potentials in a mechanosensory neuron of the cockroach. Neuroscience Letters, 1998, 243, 113-116.	1.0	7
74	Na+-Dependent Neuritic Spikes Initiate Ca2+-Dependent Somatic Plateau Action Potentials in Insect Dorsal Paired Median Neurons. Journal of Neurophysiology, 1998, 80, 2718-2726.	0.9	14
75	Adaptation Properties of Two Types of Sensory Neurons in a Spider Mechanoreceptor Organ. Journal of Neurophysiology, 1998, 80, 2781-2784.	0.9	28
76	The Efficiency of Sensory Information Coding by Mechanoreceptor Neurons. Neuron, 1997, 18, 959-968.	3.8	78
77	Ionic Selectivity of Mechanically Activated Channels in Spider Mechanoreceptor Neurons. Journal of Neurophysiology, 1997, 78, 2079-2085.	0.9	63
78	Visual Acuity for Moving Objects in First- and Second-Order Neurons of the Fly Compound Eye. Journal of Neurophysiology, 1997, 77, 1487-1495.	0.9	33
79	Rapid coating of glass-capillary microelectrodes for single-electrode voltage-clamp. Journal of Neuroscience Methods, 1997, 71, 199-204.	1.3	18
80	Nonlinear neuronal mode analysis of action potential encoding in the cockroach tactile spine neuron. Biological Cybernetics, 1995, 73, 425-430.	0.6	18
81	Sodium channel distribution in a spider mechanosensory organ. Brain Research, 1995, 683, 93-101.	1.1	23
82	Recording from cuticular mechanoreceptors during mechanical stimulation. Pflugers Archiv European Journal of Physiology, 1995, 431, 125-128.	1.3	14
83	Nonlinear neuronal mode analysis of action potential encoding in the cockroach tactile spine neuron. Biological Cybernetics, 1995, 73, 425-430.	0.6	3
84	Characterization of a transient outward current in a rapidly adapting insect mechanosensory neuron. Pflugers Archiv European Journal of Physiology, 1994, 429, 72-78.	1.3	22
85	A nonlinear model of step responses in the cockroach tactile spine neuron. Biological Cybernetics, 1994, 70, 435-441.	0.6	10
86	The time course of sensory adaptation in the cockroach tactile spine. Neuroscience Letters, 1994, 178, 147-150.	1.0	12
87	A nonlinear model of step responses in the cockroach tactile spine neuron. Biological Cybernetics, 1994, 70, 435-441.	0.6	1
88	FIVE pS ANION CHANNELS IN HUMAN AIRWAY EPITHELIAL CELLS . Biomedical Research, 1992, 13, 143-148.	0.3	6
89	CATION CHANNELS IN NORMAL AND CYSTIC EIBROSIS HUMAN AIRWAY EPITHELIAL CELLS . Biomedical Research, 1991, 12, 17-23.	0.3	8
90	Phototransduction in the fly compound eye exhibits temporal resonances and a pure time delay. Nature, 1980, 283, 200-202.	13.7	33

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91	A Flexible Neural Analog Using Integrated Circuits. IEEE Transactions on Biomedical Engineering, 1970, BME-17, 248-253.	2.5	95