Philippe Lucas

List of Publications by Year
in descending order

58	1,856	257450 24	276875 41
papers	citations	h-index	g-index

62	62	62	1624
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effects of Multi-Component Backgrounds of Volatile Plant Compounds on Moth Pheromone Perception. Insects, 2021, 12, 409.	2.2	3
2	Editorial: Invertebrate Neurobiology: Sensory Systems, Information Integration, Locomotor- and Behavioral Output. Frontiers in Physiology, 2021, 12, 807521.	2.8	0
3	Automatic tracking of free-flying insects using a cable-driven robot. Science Robotics, 2020, 5, .	17.6	17
4	Light-Weight Portable Electroantennography Device as a Future Field-Based Tool for Applied Chemical Ecology. Journal of Chemical Ecology, 2020, 46, 557-566.	1.8	7
5	Modulation of Sex Pheromone Discrimination by a UDP-Glycosyltransferase in Drosophila melanogaster. Genes, 2020, 11, 237.	2.4	13
6	Insect Odorscapes: From Plant Volatiles to Natural Olfactory Scenes. Frontiers in Physiology, 2019, 10, 972.	2.8	132
7	Adaptive integrate-and-fire model reproduces the dynamics of olfactory receptor neuron responses in a moth. Journal of the Royal Society Interface, 2019, 16, 20190246.	3.4	11
8	Moth olfactory receptor neurons adjust their encoding efficiency to temporal statistics of pheromone fluctuations. PLoS Computational Biology, 2018, 14, e1006586.	3.2	13
9	Comparison of Chemoreceptive Abilities of the Hydrothermal Shrimp Mirocaris fortunata and the Coastal Shrimp Palaemon elegans. Chemical Senses, 2018, 43, 489-501.	2.0	15
10	Olfactory coding in the turbulent realm. PLoS Computational Biology, 2017, 13, e1005870.	3.2	22
11	New electroantennography method on a marine shrimp in water. Journal of Experimental Biology, 2016, 219, 3696-3700.	1.7	7
12	Low doses of a neonicotinoid insecticide modify pheromone response thresholds of central but not peripheral olfactory neurons in a pest insect. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20152987.	2.6	18
13	Unexpected effects of sublethal doses of insecticide on the peripheral olfactory response and sexual behavior in a pest insect. Environmental Science and Pollution Research, 2016, 23, 3073-3085.	5.3	46
14	Firing and intrinsic properties of antennal lobe neurons in the Noctuid moth Agrotis ipsilon. BioSystems, 2015, 136, 46-58.	2.0	4
15	Reactive Searching and Infotaxis in Odor Source Localization. PLoS Computational Biology, 2014, 10, e1003861.	3.2	63
16	Heterogeneity and Convergence of Olfactory First-Order Neurons Account for the High Speed and Sensitivity of Second-Order Neurons. PLoS Computational Biology, 2014, 10, e1003975.	3.2	28
17	Using Insect Electroantennogram Sensors on Autonomous Robots for Olfactory Searches. Journal of Visualized Experiments, 2014, , e51704.	0.3	22
18	Multiphasic On/Off Pheromone Signalling in Moths as Neural Correlates of a Search Strategy. PLoS ONE, 2013, 8, e61220.	2.5	23

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19	Functional Characterization of Insect Olfactory Receptor Neurons Through In Vivo Approaches. Methods in Molecular Biology, 2013, 1003, 173-186.	0.9	2
20	Experience-dependent modulation of antennal sensitivity and input to antennal lobes in male moths (Spodoptera littoralis) pre-exposed to sex pheromone. Journal of Experimental Biology, 2012, 215, 2334-2341.	1.7	37
21	Characterization of a plasma membrane Ca2+ ATPase expressed in olfactory receptor neurons of the moth Spodoptera littoralis. Cell and Tissue Research, 2012, 350, 239-250.	2.9	2
22	Peripheral regulation by ecdysteroids of olfactory responsiveness in male Egyptian cotton leaf worms, Spodoptera littoralis. Insect Biochemistry and Molecular Biology, 2012, 42, 22-31.	2.7	32
23	A carboxylesterase, Esterase-6, modulates sensory physiological and behavioral response dynamics to pheromone in Drosophila. BMC Biology, 2012, 10, 56.	3.8	86
24	Differential Interactions of Sex Pheromone and Plant Odour in the Olfactory Pathway of a Male Moth. PLoS ONE, 2012, 7, e33159.	2.5	64
25	Bestrophin-Encoded Ca2+-Activated Clâ˜ Channels Underlie a Current with Properties Similar to the Native Current in the Moth Spodoptera littoralis Olfactory Receptor Neurons. PLoS ONE, 2012, 7, e52691.	2.5	3
26	Modelling the signal delivered by a population of first-order neurons in a moth olfactory system. Brain Research, 2012, 1434, 123-135.	2.2	22
27	Functional characterization of a sex pheromone receptor in the pest moth Spodoptera littoralis by heterologous expression in Drosophila. European Journal of Neuroscience, 2012, 36, 2588-2596.	2.6	86
28	Mating-induced differential coding of plant odour and sex pheromone in a male moth. European Journal of Neuroscience, 2011, 33, 1841-1850.	2.6	55
29	Calcium Activates a Chloride Conductance Likely Involved in Olfactory Receptor Neuron Repolarization in the MothSpodoptera littoralis. Journal of Neuroscience, 2010, 30, 6323-6333.	3.6	17
30	Transformation of the Sex Pheromone Signal in the Noctuid Moth Agrotis ipsilon: From Peripheral Input to Antennal Lobe Output. Chemical Senses, 2010, 35, 705-715.	2.0	29
31	Molecular Characterization of a Phospholipase C Â Potentially Involved in Moth Olfactory Transduction. Chemical Senses, 2010, 35, 363-373.	2.0	8
32	Odour Transduction in Olfactory Receptor Neurons. Chinese Journal of Physiology, 2010, 53, 364-372.	1.0	29
33	Computational Model of the Insect Pheromone Transduction Cascade. PLoS Computational Biology, 2009, 5, e1000321.	3.2	35
34	Water Taste Transduction Pathway Is Calcium Dependent in Drosophila. Chemical Senses, 2009, 34, 441-449.	2.0	11
35	A TRP channel is expressed in Spodoptera littoralis antennae and is potentially involved in insect olfactory transduction. Insect Molecular Biology, 2009, 18, 213-222.	2.0	14
36	Molecular cloning and expression patterns of a putative olfactory diacylglycerol kinase from the noctuid moth Spodoptera littoralis. Insect Molecular Biology, 2008, 17, 485-493.	2.0	5

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37	An Antennal Circadian Clock and Circadian Rhythms in Peripheral Pheromone Reception in the Moth Spodoptera littoralis. Journal of Biological Rhythms, 2007, 22, 502-514.	2.6	67
38	Ca2+ Stabilizes the Membrane Potential of Moth Olfactory Receptor Neurons at Rest and Is Essential for Their Fast Repolarization. Chemical Senses, 2007, 32, 305-317.	2.0	32
39	Modelling the early steps of transduction in insect olfactory receptor neurons. BioSystems, 2007, 89, 101-109.	2.0	20
40	Neurobiology of TRPC2: from gene to behavior. Pflugers Archiv European Journal of Physiology, 2005, 451, 61-71.	2.8	70
41	A Diacylglycerol-Gated Cation Channel in Vomeronasal Neuron Dendrites Is Impaired in TRPC2 Mutant Mice. Neuron, 2003, 40, 551-561.	8.1	295
42	Voltage- and Calcium-activated Currents in Cultured Olfactory Receptor Neurons of Male Mamestra brassicae (Lepidoptera). Chemical Senses, 2002, 27, 599-610.	2.0	20
43	Expression pattern in the antennae of a newly isolated lepidopteran Gq protein Î± subunit cDNA. FEBS Journal, 2002, 269, 2133-2142.	0.2	27
44	Introduction: Insect olfactory structures. Microscopy Research and Technique, 2001, 55, 283-283.	2.2	1
45	Development of multiple calcium channel types in cultured mouse hippocampal neurons. Neuroscience, 1999, 90, 383-388.	2.3	27
46	Functional Characterization of a New Class of Odorant-Binding Proteins in the MothMamestra brassicae. Biochemical and Biophysical Research Communications, 1998, 253, 489-494.	2.1	65
47	Effects of Trifluoromethyl Ketones and Related Compounds on the EAG and Behavioural Responses to Pheromones in Male Moths. Chemical Senses, 1997, 22, 407-416.	2.0	32
48	Reinvestigation of Female Sex Pheromone of Processionary Moth (Thaumetopoea pityocampa): No Evidence for Minor Components. Journal of Chemical Ecology, 1997, 23, 713-726.	1.8	14
49	Primary culture of antennal cells of Mamestra brassicae: morphology of cell types and evidence for biosynthesis of pheromone-binding proteins in vitro. Cell and Tissue Research, 1997, 289, 375-382.	2.9	14
50	Behavioral responses ofSpodoptera littoralis males to sex pheromone components and virgin females in wind tunnel. Journal of Chemical Ecology, 1996, 22, 1087-1102.	1.8	34
51	Sex pheromone ofStenoma cecropia Meyrick (Lepidoptera: Elachistidae). Journal of Chemical Ecology, 1996, 22, 1103-1121.	1.8	5
52	Differences in sex pheromone communication systems of closely related species:Spodoptera latifascia (walker) andS. descoinsi lalannecassou & silvain (Lepidoptera: Noctuidae). Journal of Chemical Ecology, 1995, 21, 641-660.	1.8	38
53	Electrophysiological and field activity of halogenated analogs of (E,E)-8,10-dodecadien-1-ol, the main pheromone component, in codling moth (Cydia pomonella L.). Journal of Chemical Ecology, 1994, 20, 489-503.	1.8	24
54	Sex pheromone reception in Mamestra brassicae L. (Lepidoptera): Responses of olfactory receptor neurones to minor components of the pheromone blend. Journal of Insect Physiology, 1994, 40, 75-85.	2.0	38

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55	Electrophysiological study of the effects of deltamethrin, bioresmethrin, and DDT on the activity of pheromone receptor neurones in two moth species. Pesticide Biochemistry and Physiology, 1992, 43, 103-115.	3.6	13
56	A comparative study of sex pheromone reception in the Hadeninae (Lepidoptera: Noctuidae). Physiological Entomology, 1991, 16, 87-97.	1.5	9
57	Responses of Mamestra suasa male moths to synthetic pheromone compounds in a wind tunnel. Entomologia Experimentalis Et Applicata, 1989, 53, 81-87.	1.4	5
58	Responses to pheromone compounds in Mamestra suasa (Lepidoptera: Noctuidae) olfactory neurones. Journal of Insect Physiology, 1989, 35, 837-845.	2.0	24