Gerald H Jacobs

List of Publications by Year
in descending order

155 papers	8,698 citations	36303 51 h-index	49909 87 g-index
162 all docs	162 docs citations	162 times ranked	3625 citing authors

#	Article	IF	Citations
1	Evolution of Animal Color Vision. , 2022, , 2478-2486.		0
2	Photoreceptors. , 2022, , 5232-5237.		0
3	G-proteins | Color Vision. , 2021, , 407-417.		0
4	Photopigments and the dimensionality of animal color vision. Neuroscience and Biobehavioral Reviews, 2018, 86, 108-130.	6.1	49
5	Evolution of Animal Color Vision. , 2018, , 1-9.		0
6	Photoreceptors. , 2018, , 1-5.		0
7	Evolution of Color Vision. , 2016, , 317-354.		2
8	Evolution of color vision and its reflections in contemporary mammals. , 2015, , 110-130.		5
9	The Discovery of Spectral Opponency in Visual Systems and its Impact on Understanding the Neurobiology of Color Vision. Journal of the History of the Neurosciences, 2014, 23, 287-314.	0.9	18
10	Losses of functional opsin genes, short-wavelength cone photopigments, and color visionâ€"A significant trend in the evolution of mammalian vision. Visual Neuroscience, 2013, 30, 39-53.	1.0	143
11	The Evolution of Vertebrate Color Vision. Advances in Experimental Medicine and Biology, 2012, 739, 156-172.	1.6	31
12	Color Vision Variation and Foraging Behavior in Wild Neotropical Titi Monkeys (Callicebus brunneus): Possible Mediating Roles for Spatial Memory and Reproductive Status. International Journal of Primatology, 2011, 32, 1058-1075.	1.9	20
13	Characterization of opsin gene alleles affecting color vision in a wild population of titi monkeys (<i>Callicebus brunneus</i>). American Journal of Primatology, 2011, 73, 189-196.	1.7	22
14	Cone pigments in a North American marsupial, the opossum (Didelphis virginiana). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2010, 196, 379-384.	1.6	8
15	The Verriest Lecture 2009: Recent progress in understanding mammalian color vision. Ophthalmic and Physiological Optics, 2010, 30, 422-434.	2.0	30
16	Duplicity Theory of Vision: From Newton to the Present, edited by B. Stabell and U. Stabell. 2009. Cambridge, Cambridge University Press.. Visual Neuroscience, 2010, 27, 75-76.	1.0	2
17	The Evolution of Primate Color Vision. Scientific American, 2009, 300, 56-63.	1.0	85
18	Evolution of colour vision in mammals. Philosophical Transactions of the Royal Society B: Biological Sciences, 2009, 364, 2957-2967.	4.0	254

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19	The Biology of Variations in Mammalian Color Vision. Research and Perspectives in Neurosciences, 2009, , 53-68.	0.4	1
20	Absence of functional short-wavelength sensitive cone pigments in hamsters (Mesocricetus). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2008, 194, 429-439.	1.6	10
21	Early afferent signaling in the outer plexiform layer regulates development of horizontal cell morphology. Journal of Comparative Neurology, 2008, 506, 745-758.	1.6	64
22	Early afferent signaling in the outer plexiform layer regulates development of horizontal cell morphology. Journal of Comparative Neurology, 2008, 506, spc1-spc1.	1.6	0
23	Early afferent signaling in the outer plexiform layer regulates development of horizontal cell morphology. Journal of Comparative Neurology, 2008, 506, spc1-spc1.	1.6	0
24	Primate color vision: A comparative perspective. Visual Neuroscience, 2008, 25, 619-633.	1.0	195
25	Cone Pigments and Vision in the Mouse. , 2008, , 353-373.		0
26	Naturalistic color discriminations in polymorphic platyrrhine monkeys: Effects of stimulus luminance and duration examined with functional substitution. Visual Neuroscience, 2007, 24, 17-23.	1.0	16
27	Mutational changes in S-cone opsin genes common to both nocturnal and cathemeralAotus monkeys. American Journal of Primatology, 2007, 69, 757-765.	1.7	35
28	Cone-based vision in the aging mouse. Vision Research, 2007, 47, 2037-2046.	1.4	53
29	Emergence of Novel Color Vision in Mice Engineered to Express a Human Cone Photopigment. Science, 2007, 315, 1723-1725.	12.6	209
30	Contributions of the mouse UV photopigment to the ERG and to vision. Documenta Ophthalmologica, 2007, 115, 137-144.	2.2	62
31	New World Monkeys and Color. International Journal of Primatology, 2007, 28, 729-759.	1.9	79
32	The Genetics and Evolution of Primate Visual Pigments. , 2006, , 73-97.		2
33	Visual pigments of marine carnivores: pinnipeds, polar bear, and sea otter. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2006, 192, 833-843.	1.6	89
34	L and M cone proportions in polymorphic New World monkeys. Visual Neuroscience, 2006, 23, 365-370.	1.0	15
35	Photoreceptors and photopigments in a subterranean rodent, the pocket gopher (Thomomys bottae). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2005, 191, 125-134.	1.6	30
36	Rod and cone function in coneless mice. Visual Neuroscience, 2005, 22, 807-816.	1.0	15

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37	Polymorphic New World monkeys with more than three M/L cone types. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 2072.	1.5	37
38	Cone pigment polymorphism in New World monkeys: Are all pigments created equal?. Visual Neuroscience, 2004, 21, 217-222.	1.0	37
39	Evolution of vertebrate colour vision. Australasian journal of optometry, The, 2004, 87, 206-216.	1.3	84
40	Influence of cone pigment coexpression on spectral sensitivity and color vision in the mouse. Vision Research, 2004, 44, 1615-1622.	1.4	150
41	Photopigment Variations and the Evolution of Anthropoid Vision. , 2004, , 645-664.		3
42	Progress toward understanding the evolution of primate color vision. Evolutionary Anthropology, 2003, 11, 132-135.	3.4	11
43	Diurnality and cone photopigment polymorphism in strepsirrhines: Examination of linkage inLemur catta. American Journal of Physical Anthropology, 2003, 122, 66-72.	2.1	28
44	Cone pigment variations in four genera of new world monkeys. Vision Research, 2003, 43, 227-236.	1.4	62
45	Spectral properties and retinal distribution of ferret cones. Visual Neuroscience, 2003, 20, 11-17.	1.0	38
46	Genetically engineered mice with an additional class of cone photoreceptors: Implications for the evolution of color vision. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 11706-11711.	7.1	98
47	Topography of Photoreceptors and Retinal Ganglion Cells in the Spotted Hyena <i>(Crocuta) Tj ETQq1 1 0.784314 rgBT /Overlock	1.7	42
48	Cone Photoreceptor Recovery after Experimental Detachment and Reattachment: An Immunocytochemical, Morphological, and Electrophysiological Study. , 2003, 44, 416.		87
49	Opsin gene and photopigment polymorphism in a prosimian primate. Vision Research, 2002, 42, 11-18.	1.4	119
50	An animal model for studying cone function in retinal detachment. Documenta Ophthalmologica, 2002, 104, 119-132.	2.2	23
51	Color Vision. , 2002, , 15-29.		0
52	Photopigments and colour vision in New World monkeys from the family Atelidae. Proceedings of the Royal Society B: Biological Sciences, 2001, 268, 695-702.	2.6	66
53	Spectral Sensitivity of Gibbons: Implications for Photopigments and Color Vision. Folia Primatologica, 2001, 72, 26-29.	0.7	10
54	Rhodopsins and Phototransduction Novartis Foundation Symposium 224; Wiley, Chichester, 1999, 316 pages, ISBN: 0-471-98827-8, f75.00. Ophthalmic and Physiological Optics, 2001, 21, 424-425.	2.0	0

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55	The prevalence of defective color vision in Old World monkeys and apes. Color Research and Application, 2001, 26, S123-S127.	1.6	54
56	The prevalence of defective color vision in Old World monkeys and apes. Color Research and Application, 2001, 26, S123-S127.	1.6	3
57	Cone-based vision of rats for ultraviolet and visible lights. Journal of Experimental Biology, 2001, 204, 2439-2446.	1.7	208
58	Functional consequences of the relative numbers of L and M cones. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 607.	1.5	203
59	Human Cone Pigment Expressed in Transgenic Mice Yields Altered Vision. Journal of Neuroscience, 1999, 19, 3258-3265.	3.6	57
60	Uniformity of colour vision in Old World monkeys. Proceedings of the Royal Society B: Biological Sciences, 1999, 266, 2023-2028.	2.6	93
61	Prospects for trichromatic color vision in male Cebus monkeys. Behavioural Brain Research, 1999, 101, 109-112.	2.2	12
62	Cone receptor variations and their functional consequences in two species of hamster. Visual Neuroscience, 1999, 16, 53-63.	1.0	52
63	Spectral sensitivity of macaque monkeys measured with ERG flicker photometry. Visual Neuroscience, 1999, 16, 981-981.	1.0	0
64	A perspective on color vision in platyrrhine monkeys. Vision Research, 1998, 38, 3307-3313.	1.4	96
65	Photopigment basis for dichromatic color vision in cows, goats, and sheep. Visual Neuroscience, 1998, 15, 581-4.	1.0	104
66	Cone spectral sensitivity in the harbor seal (<i>Phoca vitulina</i>) and implications for color vision. Canadian Journal of Zoology, 1998, 76, 2114-2118.	1.0	13
67	Spectral sensitivity of macaque monkeys measured with ERG flicker photometry. Visual Neuroscience, 1997, 14, 921-928.	1.0	64
68	Electroretinogram flicker photometry and its applications. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1996, 13, 641.	1.5	99
69	ERG Measurements of the Spectral Sensitivity of Common Chimpanzee (Pan troglodytes). Vision Research, 1996, 36, 2587-2594.	1.4	52
70	Spectral sensitivity and photopigments of a nocturnal prosimian, the bushbaby (Otolemur) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142 Td		43
71	Trichromatic colour vision in New World monkeys. Nature, 1996, 382, 156-158.	27.8	316
72	Regional variations in the relative sensitivity to UV light in the mouse retina. Visual Neuroscience, 1995, 12, 463-468.	1.0	79

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73	Genetic basis of photopigment variations in human dichromats. Vision Research, 1995, 35, 2095-2103.	1.4	63
74	Sensitivity to ultraviolet light in the gerbil (Meriones unguiculatus): Characteristics and mechanisms. Vision Research, 1994, 34, 1433-1441.	1.4	68
75	Spectral sensitivity, photopigments, and color vision in the guinea pig (Cavia porcellus).. Behavioral Neuroscience, 1994, 108, 993-1004.	1.2	64
76	Variations in primate color vision: Mechanisms and utility. Evolutionary Anthropology, 1994, 3, 196-205.	3.4	50
77	Photopigments underlying color vision in ringtail lemurs (Lemur catta) and brown lemurs (Eulemur) Tj ETQq1 1 0.784314 rgBT /Overlo	1.7	91
78	THE DISTRIBUTION AND NATURE OF COLOUR VISION AMONG THE MAMMALS. Biological Reviews, 1993, 68, 413-471.	10.4	609
79	More than three different cone pigments among people with normal color vision. Vision Research, 1993, 33, 117-122.	1.4	193
80	Genetic basis of polymorphism in the color vision of platyrrhine monkeys. Vision Research, 1993, 33, 269-274.	1.4	77
81	Photopigments and color vision in the nocturnal monkey,Aotus. Vision Research, 1993, 33, 1773-1783.	1.4	168
82	Photopigments of dogs and foxes and their implications for canid vision. Visual Neuroscience, 1993, 10, 173-180.	1.0	81
83	ERG flicker photometric evaluation of spectral sensitivity in protanopes and protanomalous trichromats. Documenta Ophthalmologica Proceedings Series, 1993, , 25-31.	0.0	3
84	Data and interpretation in comparative color vision. Behavioral and Brain Sciences, 1992, 15, 40-41.	0.7	4
85	Ultraviolet Vision in Vertebrates. American Zoologist, 1992, 32, 544-554.	0.7	226
86	Cone photopigments in nocturnal and diurnal procyonids. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1992, 171, 351-358.	1.6	55
87	The all-cone retina of the garter snake: spectral mechanisms and photopigment. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1992, 170, 701-707.	1.6	23
88	Retinal receptors in rodents maximally sensitive to ultraviolet light. Nature, 1991, 353, 655-656.	27.8	380
89	Spectral sensitivity of vervet monkeys (Cercopithecus aethiops sabaeus) and the issue of catarrhine trichromacy. American Journal of Primatology, 1991, 23, 185-195.	1.7	11
90	Behavioral and electrophysiological sensitivity to temporally modulated visual stimuli in the ground squirrel. Visual Neuroscience, 1991, 6, 593-606.	1.0	4

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91	Flicker photometric ERG measurements of short wavelength sensitive cones. Documenta Ophthalmologica Proceedings Series, 1991, , 341-346.	0.0	9
92	Deuteranope spectral sensitivity measured with ERG flicker photometry. Documenta Ophthalmologica Proceedings Series, 1991, , 405-411.	0.0	3
93	Relationship between cone pigments and genes in deuteranomalous subjects. Documenta Ophthalmologica Proceedings Series, 1991, , 397-403.	0.0	1
94	<title>Evolution of mechanisms for color vision</title>. , 1990, 1250, 287.		7
95	Duplicity theory and ground squirrels: Linkages between photoreceptors and visual function. Visual Neuroscience, 1990, 5, 311-318.	1.0	19
96	Polymorphism in normal human color vision and its mechanism. Vision Research, 1990, 30, 621-636.	1.4	127
97	Discrimination of luminance and chromaticity differences by dichromatic and trichromatic monkeys. Vision Research, 1990, 30, 387-397.	1.4	13
98	Spectral sensitivity of cones in an ungulate. Visual Neuroscience, 1989, 2, 97-100.	1.0	55
99	Color vision in the dog. Visual Neuroscience, 1989, 3, 119-125.	1.0	152
100	Color vision variations in Old and New World primates. American Journal of Primatology, 1989, 18, 35-44.	1.7	19
101	Analysis of fusion gene and encoded photopigment of colour-blind humans. Nature, 1989, 342, 679-682.	27.8	65
102	Polymorphism of Cone Pigments among Color Normals: Evidence from Color Matching. Documenta Ophthalmologica Proceedings Series, 1989, , 27-34.	0.0	3
103	Spectral mechanisms in the tree squirrel retina. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1988, 162, 773-780.	1.6	34
104	Temporal properties of the short-wavelength cone mechanism: Comparison of receptor and postreceptor signals in the ground squirrel. Vision Research, 1988, 28, 1077-1082.	1.4	10
105	Early color deprivation and subsequent color vision in a dichromatic monkey. Vision Research, 1987, 27, 2009-2013.	1.4	47
106	Color vision polymorphism and its photopigment basis in a callitrichid monkey (Saguinus fuscicollis). Vision Research, 1987, 27, 2089-2100.	1.4	82
107	Polymorphism of the middle wavelength cone in two species of south american monkey: Cebus apella and callicebus moloch. Vision Research, 1987, 27, 1263-1268.	1.4	66
108	Cone Pigment of the Great Horned Owl. Condor, 1987, 89, 434.	1.6	22

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109	Color vision variations in non-human primates. Trends in Neurosciences, 1986, 9, 320-323.	8.6	47
110	Spectral mechanisms and color vision in the tree shrew (Tupaia belangeri). Vision Research, 1986, 26, 291-298.	1.4	57
111	Reexamination of spectral mechanisms in the rat (Rattus norvegicus).. Journal of Comparative Psychology (Washington, D C: 1983), 1986, 100, 21-29.	0.5	70
112	Polymorphism of the long-wavelength cone in normal human colour vision. Nature, 1986, 323, 623-625.	27.8	244
113	Color Vision in the Ring-Tailed Lemur <i>(Lemur catta)</i>. Brain, Behavior and Evolution, 1985, 26, 154-166.	1.7	27
114	Spectral sensitivity of ground squirrel cones measured with ERG flicker photometry. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1985, 156, 503-509.	1.6	40
115	Color vision in squirrel monkeys: Sex-related differences suggest the mode of inheritance. Vision Research, 1985, 25, 141-143.	1.4	56
116	Visual System of the Squirrel Monkey. , 1985, , 271-293.		4
117	Within-species variations in visual capacity among squirrel monkeys (Saimiri Sciureus): Color vision. Vision Research, 1984, 24, 1267-1277.	1.4	106
118	Electroretinogram measurements of cone spectral sensitivity in dichromatic monkeys. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1984, 1, 1175.	1.5	80
119	Individual variations in color vision among squirrel monkeys (Saimiri sciureus) of different geographical origins.. Journal of Comparative Psychology (Washington, D C: 1983), 1984, 98, 347-357.	0.5	20
120	Within-species variations in visual capacity among squirrel monkeys (Saimiri sciureus): Sensitivity differences. Vision Research, 1983, 23, 239-248.	1.4	45
121	Differences in spectral response properties of lgn cells in male and female squirrel monkeys. Vision Research, 1983, 23, 461-468.	1.4	21
122	Visual acuity and spatial contrast sensitivity in tree squirrels. Behavioural Processes, 1982, 7, 367-375.	1.1	33
123	Color Vision in the Spider Monkey (Ateles). Folia Primatologica, 1982, 38, 86-98.	0.7	11
124	Visual sensitivity of ground squirrels to spatial and temporal luminance variations. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1980, 136, 291-299.	1.6	30
125	Rod photoreceptors and scotopic vision in ground squirrels. Journal of Comparative Neurology, 1980, 189, 113-125.	1.6	27
126	Spectrally-opponent responses in ground squirrel optic nerve. Vision Research, 1980, 20, 9-13.	1.4	19

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127	Spatial contrast sensitivity in albino and pigmented rats. Vision Research, 1979, 19, 933-937.	1.4	147
128	Spectral components in theb-wave of the ground squirrel electroretinogram. Vision Research, 1979, 19, 1243-1247.	1.4	10
129	Spectral sensitivity and colour vision in the ground-dwelling sciurids: Results from golden mantled ground squirrels and comparisons for five species. Animal Behaviour, 1978, 26, 409-421.	1.9	46
130	Spectral mechanisms in the retina of the Arctic ground squirrel. Canadian Journal of Zoology, 1977, 55, 1454-1460.	1.0	3
131	Visual capacities of the owl monkey (Aotus trivirgatus)â€”I. Spectral sensitivity and color vision. Vision Research, 1977, 17, 811-820.	1.4	37
132	Visual capacities of the owl monkey (Aotus trivirgatus)â€”II. Spatial contrast sensitivity. Vision Research, 1977, 17, 821-825.	1.4	91
133	Rods in the antelope ground squirrel. Vision Research, 1976, 16, 875-IV.	1.4	22
134	Electrophysiological evidence for rod and cone-based vision in the nocturnal flying squirrel. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1976, 109, 1-16.	1.6	4
135	Scotopic and photopic vision in the california ground squirrel: Physiological and anatomical evidence. Journal of Comparative Neurology, 1976, 165, 209-227.	1.6	57
136	Increment-threshold functions for different rodent species. Vision Research, 1975, 15, 375-378.	1.4	21
137	Behavioral measurements of rat spectral sensitivity. Vision Research, 1975, 15, 687-691.	1.4	32
138	Spectral sensitivity of the short wavelength mechanism in the squirrel monkey visual system. Vision Research, 1974, 14, 1271-1273.	1.4	0
139	Scotopic and Photopic Visual Capacities of an Arboreal Squirrel <i>(Sciurus niger</i><i>)</i>. Brain, Behavior and Evolution, 1974, 10, 307-321.	1.7	15
140	Visual sensitivity in the squirrel monkey. American Journal of Physical Anthropology, 1973, 38, 371-375.	2.1	7
141	Vision in the prairie dog: Spectral sensitivity and color vision.. Journal of Comparative and Physiological Psychology, 1973, 84, 240-245.	1.8	16
142	Increment-threshold spectral sensitivity in the squirrel monkey.. Journal of Comparative and Physiological Psychology, 1972, 79, 425-431.	1.8	15
143	Some characteristics of the eye and the electroretinogram of the prairie dog. Experimental Neurology, 1972, 37, 538-549.	4.1	8
144	Color vision and visual sensitivity in the California ground squirrel (Citellus beecheyi). Vision Research, 1972, 12, 1995-2004.	1.4	25

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145	Visual sensitivity and color vision in ground squirrels. Vision Research, 1971, 11, 511-537.	1.4	52
146	Spectral sensitivity of non-opponent cells in the lateral geniculate nucleus. Vision Research, 1971, 11, 1179-1182.	1.4	3
147	Vision1 1This review and the research reported by the writers have been supported by research grants GB-15969 and GB-12303 from the National Science Foundation and EY-00014 from the National Eye Institute, U.S. Public Health Service.. Behavior of Non-human Primates, 1971, 3, 107-157.	0.5	4
148	Center-surround balance in receptive fields of cells in the lateral geniculate nucleus. Vision Research, 1970, 10, 1127-1144.	1.4	37
149	Dichromacy in the Ground Squirrel. Nature, 1969, 223, 414-415.	27.8	17
150	Receptive fields in visual systems. Brain Research, 1969, 14, 553-573.	2.2	35
151	Chromatic Opponent Cells in Squirrel Monkey Lateral Geniculate Nucleus. Nature, 1965, 206, 487-489.	27.8	23
152	Single cells in squirrel monkey lateral geniculate nucleus with broad spectral sensitivity. Vision Research, 1964, 4, 221-IN3.	1.4	30
153	Spectral sensitivity and color vision of the squirrel monkey.. Journal of Comparative and Physiological Psychology, 1963, 56, 616-621.	1.8	49
154	Electroretinogram of the squirrel monkey.. Journal of Comparative and Physiological Psychology, 1963, 56, 405-409.	1.8	9
155	Electroretinographic luminosity functions of the Aotus monkey. American Journal of Physiology, 1963, 204, 47-50.	5.0	19