Kristian Donner

List of Publications by Year
in descending order

57 papers	2,062 citations	331259 21 h-index	243296 44 g-index
58 all docs	58 docs citations	58 times ranked	1536 citing authors

#	Article	IF	Citations
1	In search of the visual pigment template. Visual Neuroscience, 2000, 17, 509-528.	0.5	910
2	Noise and the absolute thresholds of cone and rod vision. Vision Research, 1992, 32, 853-866.	0.7	90
3	Thermal Activation and Photoactivation of Visual Pigments. Biophysical Journal, 2004, 86, 3653-3662.	0.2	80
4	The dual rod system of amphibians supports colour discrimination at the absolute visual threshold. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160066.	1.8	72
5	Chromophore switch from 11â€<i>cis</i>â€dehydroretinal (A2) to 11â€<i>cis</i>â€retinal (A1) decreases dark noise in salamander red rods. Journal of Physiology, 2007, 585, 57-74.	1.3	51
6	Modelling the effect of microsaccades on retinal responses to stationary contrast patterns. Vision Research, 2007, 47, 1166-1177.	0.7	49
7	Measurement of thermal contribution to photoreceptor sensitivity. Nature, 2000, 403, 220-223.	13.7	39
8	On the relation between the photoactivation energy and the absorbance spectrum of visual pigments. Vision Research, 2004, 44, 2153-2158.	0.7	37
9	Visual latency and brightness: An interpretation based on the responses of rods and ganglion cells in the frog retina. Visual Neuroscience, 1989, 3, 39-51.	0.5	36
10	Changes in retinal time scale under background light: Observations on rods and ganglion cells in the frog retina. Vision Research, 1995, 35, 2255-2266.	0.7	36
11	Visual pigments of Baltic Sea fishes of marine and limnic origin. Visual Neuroscience, 2007, 24, 389-398.	0.5	34
12	The effects of temporal noise and retinal illuminance on foveal flicker sensitivity. Vision Research, 1999, 39, 533-550.	0.7	32
13	Visual pigment absorbance and spectral sensitivity of the Mysis relicta species group (Crustacea,) Tj ETQq1 1 0.784314 rgBT /Overlock Sensory, Neural, and Behavioral Physiology, 2005, 191, 1087-1097.	0.7	32
14	Modelling the spatio-temporal modulation response of ganglion cells with difference-of-Gaussians receptive fields: Relation to photoreceptor response kinetics. Visual Neuroscience, 1996, 13, 173-186.	0.5	28
15	Light adaptation of cone photoresponses studied at the photoreceptor and ganglion cell levels in the frog retina. Vision Research, 1998, 38, 19-36.	0.7	27
16	Spectral tuning by selective chromophore uptake in rods and cones of eight populations of nine-spined stickleback (<i>Pungitius pungitius</i>). Journal of Experimental Biology, 2012, 215, 2760-2773.	0.8	25
17	Flicker Sensitivity as a Function of Spectral Density of External White Temporal Noise. Vision Research, 1996, 36, 3767-3774.	0.7	24
18	Center and surround excitation in the receptive fields of frog retinal ganglion cells. Vision Research, 1984, 24, 1807-1819.	0.7	23

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19	Polymorphism of the rod visual pigment between allopatric populations of the sand goby (Pomatoschistus minutus): a microspectrophotometric study. Journal of Experimental Biology, 2003, 206, 2611-2617.	0.8	23
20	A frogâ€™s eye view: Foundational revelations and future promises. Seminars in Cell and Developmental Biology, 2020, 106, 72-85.	2.3	23
21	Temperature effects on spectral properties of red and green rods in toad retina. Visual Neuroscience, 2002, 19, 781-792.	0.5	22
22	pH and rate of â€˜darkâ€™ events in toad retinal rods: test of a hypothesis on the molecular origin of photoreceptor noise. Journal of Physiology, 2002, 539, 837-846.	1.3	21
23	The thermal contribution to photoactivation in A2 visual pigments studied by temperature effects on spectral properties. Visual Neuroscience, 2003, 20, 411-419.	0.5	18
24	Changes in the light-sensitive current of salamander rods upon manipulation of putative pH-regulating mechanisms in the inner and outer segment. Vision Research, 1994, 34, 983-994.	0.7	17
25	Rhodopsin phosphorylation inhibited by adenosine in frog rods: Lack of effects on excitation. Comparative Biochemistry and Physiology A, Comparative Physiology, 1985, 81, 431-439.	0.7	16
26	Rhodopsins from Three Frog and Toad Species: Sequences and Functional Comparisons. Experimental Eye Research, 1998, 66, 295-305.	1.2	16
27	Visual reaction time: neural conditions for the equivalence of stimulus area and contrast. Vision Research, 2003, 43, 2937-2940.	0.7	16
28	Temporal vision: measures, mechanisms and meaning. Journal of Experimental Biology, 2021, 224, .	0.8	16
29	Time course of suppression by surround gratings: Highly contrast-dependent, but consistently fast. Vision Research, 2007, 47, 3298-3306.	0.7	15
30	Eye Adaptation to Different Light Environments in Two Populations of Mysis relicta: A Comparative Study of Carotenoids and Retinoids. Journal of Crustacean Biology, 2010, 30, 636-642.	0.3	15
31	The absolute sensitivity of vision: can a frog become a perfect detector of light-induced and dark rod events?. Physica Scripta, 1989, 39, 133-140.	1.2	14
32	Sulfhydryl binding reagents increase the conductivity of the light-sensitive channel and inhibit phototransduction in retinal rods. Experimental Eye Research, 1990, 51, 97-105.	1.2	14
33	pH regulation in frog cones studied by mass receptor photoresponses from the isolated retina. Vision Research, 1993, 33, 2181-2188.	0.7	14
34	Response univariance in bull-frog rods with two visual pigments. Vision Research, 1994, 34, 839-847.	0.7	14
35	Noise-equivalent and signal-equivalent visual summation of quantal events in space and time. Visual Neuroscience, 1998, 15, 731-742.	0.5	13
36	Does the random distribution of discrete photoreceptor events limit the sensitivity of the retina?. Neuroscience Research, 1986, 4, S163-S180.	1.0	12

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37	Rod Phototransduction Determines the Trade-Off of Temporal Integration and Speed of Vision in Dark-Adapted Toads. Journal of Neuroscience, 2009, 29, 5716-5725.	1.7	12
38	How the latencies of excitation and inhibition determine ganglion cell thresholds and discharge patterns in the frog. Vision Research, 1981, 21, 1689-1692.	0.7	10
39	Flicker sensitivity as a function of target area with and without temporal noise. Vision Research, 2000, 40, 3841-3851.	0.7	10
40	The photoactivation energy of the visual pigment in two spectrally different populations of Mysis relicta (Crustacea, Mysida). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2005, 191, 837-844.	0.7	10
41	Eye spectral sensitivity in fresh- and brackish-water populations of three glacial-relict Mysis species (Crustacea): physiology and genetics of differential tuning. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2016, 202, 297-312.	0.7	10
42	The Effect of Background Luminance on Visual Responses to Strong Flashes: Perceived Brightness and the Early Rise of Photoreceptor Responses. Vision Research, 1996, 36, 3253-3264.	0.7	9
43	Opsin gene sequence variation across phylogenetic and population histories in <i>Mysis</i> (Crustacea: Mysida) does not match current light environments or visualâ€pigment absorbance spectra. Molecular Ecology, 2012, 21, 2176-2196.	2.0	9
44	Photoreceptors and eyes of pikeperch <scp><i>Sander lucioperca</i></scp>, pike <scp><i>Esox lucius</i></scp>, perch <scp><i>Perca fluviatilis</i></scp> and roach <scp><i>Rutilus rutilus</i></scp> from a clear and a brown lake. Journal of Fish Biology, 2019, 95, 200-213.	0.7	9
45	pH Changes in Frog Rods upon Manipulation of Putative pH-regulating Transport Mechanisms. Vision Research, 1996, 36, 3029-3036.	0.7	7
46	Individual variation in rod absorbance spectra correlated with opsin gene polymorphism in sand goby (<i>Pomatoschistus minutus</i>). Journal of Experimental Biology, 2009, 212, 3415-3421.	0.8	7
47	Effects of Mean Luminance Changes on Human Contrast Perception: Contrast Dependence, Time-Course and Spatial Specificity. PLoS ONE, 2011, 6, e17200.	1.1	7
48	The effect of mean luminance change and grating pedestals on contrast perception: Model simulations suggest a common, retinal, origin. Vision Research, 2012, 58, 51-58.	0.7	6
49	Surround control of center adaptation in the receptive fields of frog retinal ganglion cells. Vision Research, 1987, 27, 1211-1221.	0.7	5
50	Transient sensitivity reduction and biphasic photoresponses observed when frog retinal rods are oxidized. Comparative Biochemistry and Physiology A, Comparative Physiology, 1987, 87, 749-756.	0.7	5
51	On the relation between ERG waves and retinal function: Inverted rod photoresponses from the frog retina. Vision Research, 1992, 32, 1411-1416.	0.7	5
52	Effects of sulfhydryl binding reagents on the photoresponses of amphibian retinal rods. Comparative Biochemistry and Physiology A, Comparative Physiology, 1989, 94, 125-132.	0.7	4
53	Efficiency of Temporal Integration of Sinusoidal Flicker. , 2003, 44, 5049.		4
54	Lake and Sea Populations of Mysis relicta (Crustacea, Mysida) with Different Visual-Pigment Absorbance Spectra Use the Same A1 Chromophore. PLoS ONE, 2014, 9, e88107.	1.1	4

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55	Increasing the illumination slowly over several weeks protects against light damage in the eyes of the crustacean Mysis relicta. Journal of Experimental Biology, 2017, 220, 2798-2808.	0.8	3
56	Does the random distribution of discrete photoreceptor events limit the sensitivity of the retina?. Neuroscience Research Supplement: the Official Journal of the Japan Neuroscience Society, 1986, 4, S163-S180.	0.0	1
57	Dark-adaptation in the eyes of a lake and a sea population of opossum shrimp (Mysis relicta): retinoid isomer dynamics, rhodopsin regeneration, and recovery of light sensitivity. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2020, 206, 871-889.	0.7	1