Gregor Rainer

List of Publications by Year
in descending order

78 papers	6,759 citations	186265 28 h-index	82547 72 g-index
80 all docs	80 docs citations	80 times ranked	6287 citing authors

#	Article	IF	Citations
1	Overproduction of hydrogen sulfide, generated by cystathionine Î²-synthase, disrupts brain wave patterns and contributes to neurobehavioral dysfunction in a rat model of down syndrome. Redox Biology, 2022, 51, 102233.	9.0	31
2	Local Field Potential in the Visual System. , 2022, , 1827-1834.		0
3	Aspects of tree shrew consolidated sleep structure resemble human sleep. Communications Biology, 2021, 4, 722.	4.4	10
4	Ventral pallidum regulates the default mode network, controlling transitions between internally and externally guided behavior. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	13
5	Optogenetic Stimulation of Basal Forebrain Parvalbumin Neurons Activates the Default Mode Network and Associated Behaviors. Cell Reports, 2020, 33, 108359.	6.4	20
6	Alphaâ€Synuclein Dopaminylation Presented in Plasma of Both Healthy Subjects and Parkinson's Disease Patients. Proteomics - Clinical Applications, 2020, 14, 1900117.	1.6	6
7	Measurement of ultra-trace level of intact oxytocin in plasma using SALLE combined with nano-LCâ€"MS. Journal of Pharmaceutical and Biomedical Analysis, 2019, 173, 62-67.	2.8	11
8	Local Field Potential in the Visual System. , 2019, , 1-8.		0
9	Stress Impacts the Regulation Neuropeptides in the Rat Hippocampus and Prefrontal Cortex. Proteomics, 2018, 18, e1700408.	2.2	24
10	Basal forebrain contributes to default mode network regulation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1352-1357.	7.1	59
11	Cannabinoids induce apathetic and impulsive patterns of choice through CB1 receptors and TRPV1 channels. Neuropharmacology, 2018, 133, 75-84.	4.1	18
12	Astrocytic and neuronal oxidative metabolism are coupled to the rate of glutamateâ€"glutamine cycle in the tree shrew visual cortex. Glia, 2018, 66, 477-491.	4.9	45
13	Distinct Frequency Specialization for Detecting Dark Transients in Humans and Tree Shrews. Cell Reports, 2018, 23, 2405-2415.	6.4	5
14	Divergent Solutions to Visual Problem Solving across Mammalian Species. ENeuro, 2018, 5, ENEURO.0167-18.2018.	1.9	18
15	Separation and identification of mouse brain tissue microproteins using topâ€down method with high resolution nanocapillary liquid chromatography mass spectrometry. Proteomics, 2017, 17, 1600419.	2.2	13
16	Basal forebrain activation enhances between-trial reliability of low-frequency local field potentials (LFP) and spiking activity in tree shrew primary visual cortex (V1). Brain Structure and Function, 2017, 222, 4239-4252.	2.3	10
17	Gamma band directional interactions between basal forebrain and visual cortex during wake and sleep states. Journal of Physiology (Paris), 2016, 110, 19-28.	2.1	18
18	Neural coding of image structure and contrast polarity of Cartesian, hyperbolic, and polar gratings in the primary and secondary visual cortex of the tree shrew. Journal of Neurophysiology, 2016, 115, 2000-2013.	1.8	2

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19	Neural and neurochemical basis of reinforcement-guided decision making. Journal of Neurophysiology, 2016, 116, 724-741.	1.8	21
20	Enhanced visual exploration for real objects compared to pictures during free viewing in the macaque monkey. Behavioural Processes, 2015, 118, 8-20.	1.1	8
21	High-Efficiency Recognition and Identification of Disulfide Bonded Peptides in Rat Neuropeptidome Using Targeted Electron Transfer Dissociation Tandem Mass Spectrometry. Analytical Chemistry, 2015, 87, 11646-11651.	6.5	8
22	Mice lacking circadian clock components display different mood-related behaviors and do not respond uniformly to chronic lithium treatment. Chronobiology International, 2015, 32, 1075-1089.	2.0	46
23	Activation of cannabinoid system in anterior cingulate cortex and orbitofrontal cortex modulates cost-benefit decision making. Psychopharmacology, 2015, 232, 2097-2112.	3.1	43
24	Tree shrews (Tupaia belangeri) exhibit novelty preference in the novel location memory task with 24-h retention periods. Frontiers in Psychology, 2014, 5, 303.	2.1	13
25	On the Relation Between Receptive Field Structure and Stimulus Selectivity in the Tree Shrew Primary Visual Cortex. Cerebral Cortex, 2014, 24, 2761-2771.	2.9	30
26	Extending the scope of neuropeptidomics in the mammalian brain. EuPA Open Proteomics, 2014, 3, 273-279.	2.5	7
27	A MATLAB-based eye tracking control system using non-invasive helmet head restraint in the macaque. Journal of Neuroscience Methods, 2014, 235, 41-50.	2.5	12
28	Altered neurochemical levels in the rat brain following chronic nicotine treatment. Journal of Chemical Neuroanatomy, 2014, 59-60, 29-35.	2.1	9
29	Local Field Potential in the Visual System. , 2014, , 1-8.		1
30	Basal forebrain activation controls contrast sensitivity in primary visual cortex. BMC Neuroscience, 2013, 14, 55.	1.9	43
31	Neuropeptide alterations in the tree shrew hypothalamus during volatile anesthesia. Journal of Proteomics, 2013, 80, 311-319.	2.4	16
32	Chronic Nicotine Treatment Impacts the Regulation of Opioid and Non-opioid Peptides in the Rat Dorsal Striatum. Molecular and Cellular Proteomics, 2013, 12, 1553-1562.	3.8	22
33	High Identification Rates of Endogenous Neuropeptides from Mouse Brain. Journal of Proteome Research, 2012, 11, 2819-2827.	3.7	36
34	Extensive Characterization of <i>Tupaia belangeri</i> Neuropeptidome Using an Integrated Mass Spectrometric Approach. Journal of Proteome Research, 2012, 11, 886-896.	3.7	27
35	Recognition memory in tree shrew (Tupaia belangeri) after repeated familiarization sessions. Behavioural Processes, 2012, 90, 364-371.	1.1	21
36	Theta coupling between V4 and prefrontal cortex predicts visual short-term memory performance. Nature Neuroscience, 2012, 15, 456-462.	14.8	291

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37	Analysis of multiple quaternary ammonium compounds in the brain using tandem capillary column separation and high resolution mass spectrometric detection. Journal of Chromatography A, 2012, 1241, 46-51.	3.7	28
38	Broad characterization of endogenous peptides in the tree shrew visual system. Journal of Proteomics, 2012, 75, 2526-2535.	2.4	12
39	Functional and laminar dissociations between muscarinic and nicotinic cholinergic neuromodulation in the tree shrew primary visual cortex. European Journal of Neuroscience, 2012, 35, 1270-1280.	2.6	20
40	Foggy perception slows us down. ELife, 2012, 1, e00031.	6.0	34
41	Allocating Attention in Rank-Ordered Groups. Neuron, 2011, 70, 5-7.	8.1	2
42	Cholinergic control of visual categorization in macaques. Frontiers in Behavioral Neuroscience, 2011, 5, 73.	2.0	14
43	The zebrafish heart regenerates after cryoinjury-induced myocardial infarction. BMC Developmental Biology, 2011, 11, 21.	2.1	314
44	Dissociable Effects of Natural Image Structure and Color on LFP and Spiking Activity in the Lateral Prefrontal Cortex and Extrastriate Visual Area V4. Journal of Neuroscience, 2011, 31, 10215-10227.	3.6	11
45	Neural response dynamics of spiking and local field potential activity depend on CRT monitor refresh rate in the tree shrew primary visual cortex. Journal of Neurophysiology, 2011, 106, 2303-2313.	1.8	30
46	Temporal kernel CCA and its application in multimodal neuronal data analysis. Machine Learning, 2010, 79, 5-27.	5.4	77
47	Directed coupling in local field potentials of macaque V4 during visual short-term memory revealed by multivariate autoregressive models. Frontiers in Computational Neuroscience, 2010, 4, 14.	2.1	26
48	Color and shape interactions in the recognition of natural scenes by human and monkey observers. Journal of Vision, 2009, 9, 14-14.	0.3	19
49	Localizing Cortical Computations during Visual Selection. Neuron, 2008, 57, 480-481.	8.1	5
50	Pharmacological MRI combined with electrophysiology in non-human primates: Effects of Lidocaine on primary visual cortex. NeuroImage, 2008, 40, 590-600.	4.2	30
51	Object features used by humans and monkeys to identify rotated shapes. Journal of Vision, 2008, 8, 9.	0.3	21
52	Mass spectrometry-based neurochemical analysis: perspectives for primate research. Expert Review of Proteomics, 2008, 5, 641-652.	3.0	7
53	The effect of a serotonin-induced dissociation between spiking and perisynaptic activity on BOLD functional MRI. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6759-6764.	7.1	139
54	Behavioral Flexibility and the Frontal Lobe. Neuron, 2007, 53, 321-323.	8.1	15

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55	Capillary hydrophilic interaction chromatography/mass spectrometry for simultaneous determination of multiple neurotransmitters in primate cerebral cortex. Rapid Communications in Mass Spectrometry, 2007, 21, 3621-3628.	1.5	79
56	Visual Neuroscience: Face-Encoding Mechanisms Revealed by Adaptation. Current Biology, 2007, 17, R20-R22.	3.9	2
57	Object Recognition: Similar Visual Strategies of Birds and Mammals. Current Biology, 2007, 17, R174-R176.	3.9	4
58	Visual Neuroscience: Computational Brain Dynamics of Face Processing. Current Biology, 2007, 17, R933-R934.	3.9	0
59	Discrimination Strategies of Humans and Rhesus Monkeys for Complex Visual Displays. Current Biology, 2006, 16, 814-820.	3.9	35
60	Dissociation Between Local Field Potentials and Spiking Activity in Macaque Inferior Temporal Cortex Reveals Diagnosticity-Based Encoding of Complex Objects. Journal of Neuroscience, 2006, 26, 9639-9645.	3.6	104
61	Phase Locking of Single Neuron Activity to Theta Oscillations during Working Memory in Monkey Extrastriate Visual Cortex. Neuron, 2005, 45, 147-156.	8.1	369
62	The Effect of Learning on the Function of Monkey Extrastriate Visual Cortex. PLoS Biology, 2004, 2, e44.	5.6	111
63	Working-memory related theta (4â€“) frequency oscillations observed in monkey extrastriate visual cortex. Neurocomputing, 2004, 58-60, 965-969.	5.9	8
64	Neural mechanisms for detecting and remembering novel events. Nature Reviews Neuroscience, 2003, 4, 193-202.	10.2	667
65	Vision, behaviour, and the single neuron. , 2003, , 2-22.		0
66	Coding of Objects in the Prefrontal Cortex in Monkeys and Humans. Neuroscientist, 2002, 8, 6-11.	3.5	14
67	The Effect of Image Scrambling on Visual Cortical BOLD Activity in the Anesthetized Monkey. NeuroImage, 2002, 16, 607-616.	4.2	33
68	Timecourse of object-related neural activity in the primate prefrontal cortex during a short-term memory task. European Journal of Neuroscience, 2002, 15, 1244-1254.	2.6	96
69	Nonmonotonic noise tuning of BOLD fMRI signal to natural images in the visual cortex of the anesthetized monkey. Current Biology, 2001, 11, 846-854.	3.9	87
70	Neural ensemble states in prefrontal cortex identified using a hidden Markov model with a modified EM algorithm. Neurocomputing, 2000, 32-33, 961-966.	5.9	23
71	Task-Specific Neural Activity in the Primate Prefrontal Cortex. Journal of Neurophysiology, 2000, 84, 451-459.	1.8	423
72	Effects of Visual Experience on the Representation of Objects in the Prefrontal Cortex. Neuron, 2000, 27, 179-189.	8.1	327

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73	Prospective Coding for Objects in Primate Prefrontal Cortex. Journal of Neuroscience, 1999, 19, 5493-5505.	3.6	397
74	Selective representation of relevant information by neurons in the primate prefrontal cortex. Nature, 1998, 393, 577-579.	27.8	571
75	Neural Activity in the Primate Prefrontal Cortex during Associative Learning. Neuron, 1998, 21, 1399-1407.	8.1	542
76	Memory fields of neurons in the primate prefrontal cortex. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 15008-15013.	7.1	258
77	Integration of What and Where in the Primate Prefrontal Cortex. Science, 1997, 276, 821-824.	12.6	846
78	Using spikes and local field potentials to reveal computational networks in monkey cortex. , 0, , 350-362.		1