

Christoph E Schreiner

List of Publications by Year in descending order

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145
papers

11,745
citations

19608

61
h-index

30848

102
g-index

149
all docs

149
docs citations

149
times ranked

5510
citing authors

#	ARTICLE	IF	CITATIONS
1	Neural Processing of Amplitude-Modulated Sounds. <i>Physiological Reviews</i> , 2004, 84, 541-577.	13.1	817
2	A synaptic memory trace for cortical receptive field plasticity. <i>Nature</i> , 2007, 450, 425-429.	13.7	541
3	Time Course of Forward Masking Tuning Curves in Cat Primary Auditory Cortex. <i>Journal of Neurophysiology</i> , 1997, 77, 923-943.	0.9	344
4	Topography and synaptic shaping of direction selectivity in primary auditory cortex. <i>Nature</i> , 2003, 424, 201-205.	13.7	343
5	Spectrotemporal Receptive Fields in the Lemniscal Auditory Thalamus and Cortex. <i>Journal of Neurophysiology</i> , 2002, 87, 516-527.	0.9	328
6	Representation of amplitude modulation in the auditory cortex of the cat. II. Comparison between cortical fields. <i>Hearing Research</i> , 1988, 32, 49-63.	0.9	326
7	Developmental sensory experience balances cortical excitation and inhibition. <i>Nature</i> , 2010, 465, 932-936.	13.7	273
8	Tone-Evoked Excitatory and Inhibitory Synaptic Conductances of Primary Auditory Cortex Neurons. <i>Journal of Neurophysiology</i> , 2004, 92, 630-643.	0.9	250
9	Modular Organization of Frequency Integration in Primary Auditory Cortex. <i>Annual Review of Neuroscience</i> , 2000, 23, 501-529.	5.0	234
10	Spectrotemporal Structure of Receptive Fields in Areas AI and AAF of Mouse Auditory Cortex. <i>Journal of Neurophysiology</i> , 2003, 90, 2660-2675.	0.9	223
11	Representation of amplitude modulation in the auditory cortex of the cat. I. The anterior auditory field (AAF). <i>Hearing Research</i> , 1986, 21, 227-241.	0.9	212
12	Laminar fine structure of frequency organization in auditory midbrain. <i>Nature</i> , 1997, 388, 383-386.	13.7	212
13	Nonlinear Spectrotemporal Sound Analysis by Neurons in the Auditory Midbrain. <i>Journal of Neuroscience</i> , 2002, 22, 4114-4131.	1.7	202
14	Functional Convergence of Response Properties in the Auditory Thalamocortical System. <i>Neuron</i> , 2001, 32, 151-160.	3.8	195
15	Long-term modification of cortical synapses improves sensory perception. <i>Nature Neuroscience</i> , 2013, 16, 79-88.	7.1	193
16	Auditory thalamocortical transformation: structure and function. <i>Trends in Neurosciences</i> , 2005, 28, 255-263.	4.2	183
17	Acoustic variability and distinguishability among mouse ultrasound vocalizations. <i>Journal of the Acoustical Society of America</i> , 2003, 114, 3412-3422.	0.5	176
18	Auditory Cortex Mapmaking: Principles, Projections, and Plasticity. <i>Neuron</i> , 2007, 56, 356-365.	3.8	171

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19	Sensory Input Directs Spatial and Temporal Plasticity in Primary Auditory Cortex. <i>Journal of Neurophysiology</i> , 2001, 86, 326-338.	0.9	170
20	Sound-induced seizures in serotonin 5-HT _{2c} receptor mutant mice. <i>Nature Genetics</i> , 1997, 16, 387-390.	9.4	152
21	Development of spectral and temporal response selectivity in the auditory cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 16460-16465.	3.3	145
22	Functional architecture of auditory cortex. <i>Current Opinion in Neurobiology</i> , 2002, 12, 433-440.	2.0	143
23	Functional topography of cat primary auditory cortex: responses to frequency-modulated sweeps. <i>Experimental Brain Research</i> , 1993, 94, 65-87.	0.7	138
24	Human Superior Temporal Gyrus Organization of Spectrotemporal Modulation Tuning Derived from Speech Stimuli. <i>Journal of Neuroscience</i> , 2016, 36, 2014-2026.	1.7	138
25	Modular organization of intrinsic connections associated with spectral tuning in cat auditory cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 8042-8047.	3.3	132
26	Functional topography of cat primary auditory cortex: representation of tone intensity. <i>Experimental Brain Research</i> , 1992, 92, 105-22.	0.7	131
27	Columnar Transformations in Auditory Cortex? A Comparison to Visual and Somatosensory Cortices. <i>Cerebral Cortex</i> , 2003, 13, 83-89.	1.6	130
28	Associative learning shapes the neural code for stimulus magnitude in primary auditory cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 16351-16356.	3.3	128
29	Short-Term Adaptation of Auditory Receptive Fields to Dynamic Stimuli. <i>Journal of Neurophysiology</i> , 2004, 91, 604-612.	0.9	125
30	Cooperative Nonlinearities in Auditory Cortical Neurons. <i>Neuron</i> , 2008, 58, 956-966.	3.8	123
31	Auditory Cortical Detection and Discrimination Correlates with Communicative Significance. <i>PLoS Biology</i> , 2007, 5, e173.	2.6	120
32	Fine functional organization of auditory cortex revealed by Fourier optical imaging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 13325-13330.	3.3	118
33	Reward-dependent plasticity in the primary auditory cortex of adult monkeys trained to discriminate temporally modulated signals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 11070-11075.	3.3	117
34	Neural Mechanisms Underlying Temporal Integration, Segmentation, and Input Sequence Representation: Some Implications for the Origin of Learning Disabilities. <i>Annals of the New York Academy of Sciences</i> , 1993, 682, 1-22.	1.8	112
35	Naturalistic Auditory Contrast Improves Spectrotemporal Coding in the Cat Inferior Colliculus. <i>Journal of Neuroscience</i> , 2003, 23, 11489-11504.	1.7	111
36	Functional Organization of Squirrel Monkey Primary Auditory Cortex: Responses to Pure Tones. <i>Journal of Neurophysiology</i> , 2001, 85, 1732-1749.	0.9	110

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37	Spectrotemporal Processing Differences between Auditory Cortical Fast-Spiking and Regular-Spiking Neurons. <i>Journal of Neuroscience</i> , 2008, 28, 3897-3910.	1.7	109
38	Functional organization of spectral receptive fields in the primary auditory cortex of the owl monkey. , 1999, 415, 460-481.		108
39	Representation of Spectral and Temporal Envelope of Twitter Vocalizations in Common Marmoset Primary Auditory Cortex. <i>Journal of Neurophysiology</i> , 2002, 87, 1723-1737.	0.9	103
40	Gabor Analysis of Auditory Midbrain Receptive Fields: Spectro-Temporal and Binaural Composition. <i>Journal of Neurophysiology</i> , 2003, 90, 456-476.	0.9	103
41	Spatial Distribution of Responses to Simple and Complex Sounds in the Primary Auditory Cortex. <i>Audiology and Neuro-Otology</i> , 1998, 3, 104-122.	0.6	102
42	Hierarchical computation in the canonical auditory cortical circuit. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 21894-21899.	3.3	101
43	Concurrent Tonotopic Processing Streams in Auditory Cortex. <i>Cerebral Cortex</i> , 2004, 14, 441-451.	1.6	99
44	Improved cortical entrainment to infant communication calls in mothers compared with virgin mice. <i>European Journal of Neuroscience</i> , 2006, 23, 3087-3097.	1.2	99
45	Auditory map plasticity: diversity in causes and consequences. <i>Current Opinion in Neurobiology</i> , 2014, 24, 143-156.	2.0	95
46	Inhibitory Actions Unified by Network Integration. <i>Neuron</i> , 2015, 87, 1181-1192.	3.8	93
47	Neuronal Responses in Cat Primary Auditory Cortex to Electrical Cochlear Stimulation. III. Activation Patterns in Short- and Long-Term Deafness. <i>Journal of Neurophysiology</i> , 1999, 82, 3506-3526.	0.9	92
48	Hierarchical representations in the auditory cortex. <i>Current Opinion in Neurobiology</i> , 2011, 21, 761-767.	2.0	92
49	Perinatal exposure to a noncoplanar polychlorinated biphenyl alters tonotopy, receptive fields, and plasticity in rat primary auditory cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 7646-7651.	3.3	91
50	The auditory neurophonic: Basic properties. <i>Hearing Research</i> , 1984, 15, 261-280.	0.9	89
51	Auditory cortical neuron response differences under isoflurane versus pentobarbital anesthesia. <i>Hearing Research</i> , 2001, 156, 115-127.	0.9	86
52	Columnar Connectivity and Laminar Processing in Cat Primary Auditory Cortex. <i>PLoS ONE</i> , 2010, 5, e9521.	1.1	86
53	Tonotopic and heterotopic projection systems in physiologically defined auditory cortex. <i>Neuroscience</i> , 2004, 128, 871-887.	1.1	84
54	Order and disorder in auditory cortical maps. <i>Current Opinion in Neurobiology</i> , 1995, 5, 489-496.	2.0	83

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55	Modular Functional Organization of Cat Anterior Auditory Field. <i>Journal of Neurophysiology</i> , 2004, 92, 444-457.	0.9	82
56	Unbalanced synaptic inhibition can create intensity-tuned auditory cortex neurons. <i>Neuroscience</i> , 2007, 146, 449-462.	1.1	80
57	Laminar Diversity of Dynamic Sound Processing in Cat Primary Auditory Cortex. <i>Journal of Neurophysiology</i> , 2010, 103, 192-205.	0.9	77
58	Covariation of latency and temporal resolution in the inferior colliculus of the cat. <i>Hearing Research</i> , 1987, 31, 197-201.	0.9	73
59	Functional topography of cat primary auditory cortex: response latencies. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1997, 181, 615-633.	0.7	73
60	<i>Dlx1</i> and <i>Dlx2</i> Promote Interneuron GABA Synthesis, Synaptogenesis, and Dendritogenesis. <i>Cerebral Cortex</i> , 2018, 28, 3797-3815.	1.6	72
61	Speech modifications algorithms used for training language learning-impaired children. <i>IEEE Transactions on Rehabilitation Engineering: A Publication of the IEEE Engineering in Medicine and Biology Society</i> , 1998, 6, 257-268.	1.4	67
62	Correlations between neural discharges are related to receptive field properties in cat primary auditory cortex. <i>European Journal of Neuroscience</i> , 1999, 11, 3517-3530.	1.2	66
63	Low-frequency oscillations of visual, auditory and somatosensory cortical neurons evoked by sensory stimulation. <i>International Journal of Psychophysiology</i> , 1997, 26, 205-227.	0.5	64
64	Adaptation and recovery from adaptation in single fiber responses of the cat auditory nerve. <i>Journal of the Acoustical Society of America</i> , 1991, 90, 263-273.	0.5	63
65	Frequency resolution and spectral integration (critical band analysis) in single units of the cat primary auditory cortex. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1997, 181, 635-650.	0.7	57
66	Stimulus-Based State Control in the Thalamocortical System. <i>Journal of Neuroscience</i> , 2000, 20, 7011-7016.	1.7	57
67	Spatial Organization of Frequency Response Areas and Rate/Level Functions in the Developing AI. <i>Journal of Neurophysiology</i> , 2004, 91, 841-854.	0.9	57
68	Frequency-Modulation Encoding in the Primary Auditory Cortex of the Awake Owl Monkey. <i>Journal of Neurophysiology</i> , 2007, 98, 2182-2195.	0.9	54
69	Cortical Interneurons Differentially Regulate the Effects of Acoustic Context. <i>Cell Reports</i> , 2017, 20, 771-778.	2.9	54
70	Spectral envelope coding in cat primary auditory cortex: linear and non-linear effects of stimulus characteristics. <i>European Journal of Neuroscience</i> , 1998, 10, 926-940.	1.2	53
71	Feature Selectivity and Interneuronal Cooperation in the Thalamocortical System. <i>Journal of Neuroscience</i> , 2001, 21, 8136-8144.	1.7	53
72	Functional Organization of Squirrel Monkey Primary Auditory Cortex: Responses to Frequency-Modulation Sweeps. <i>Journal of Neurophysiology</i> , 2005, 94, 1299-1311.	0.9	47

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73	Receptive field dimensionality increases from the auditory midbrain to cortex. <i>Journal of Neurophysiology</i> , 2012, 107, 2594-2603.	0.9	47
74	Functional organization and hemispheric comparison of primary auditory cortex in the common marmoset (<i>Callithrix jacchus</i>). <i>Journal of Comparative Neurology</i> , 2005, 487, 391-406.	0.9	46
75	Neural mechanisms of tinnitus. <i>European Archives of Oto-Rhino-Laryngology</i> , 1993, 249, 441-6.	0.8	42
76	Plasticity in Primary Auditory Cortex of Monkeys with Altered Vocal Production. <i>Journal of Neuroscience</i> , 2005, 25, 2490-2503.	1.7	41
77	Functional organization of the auditory cortex: maps and mechanisms. <i>Current Opinion in Neurobiology</i> , 1992, 2, 516-521.	2.0	39
78	Selectively eliminating cochlear microphonic contamination from the frequency-following response. <i>Electroencephalography and Clinical Neurophysiology</i> , 1990, 75, 88-96.	0.3	38
79	Coordinated neuronal ensembles in primary auditory cortical columns. <i>ELife</i> , 2018, 7, .	2.8	38
80	The Contribution of Spike Threshold to Acoustic Feature Selectivity, Spike Information Content, and Information Throughput. <i>Journal of Neuroscience</i> , 2005, 25, 9524-9534.	1.7	37
81	Forward masking of the auditory nerve neurophonic (ANN) and the frequency following response (FFR). <i>Hearing Research</i> , 1985, 20, 45-62.	0.9	35
82	The Central Auditory System: A Functional Analysis. , 2005, , 1-68.		35
83	Electrical Cochlear Stimulation in the Deaf Cat: Comparisons Between Psychophysical and Central Auditory Neuronal Thresholds. <i>Journal of Neurophysiology</i> , 2000, 83, 2145-2162.	0.9	30
84	Spatial Interaction Between Spectral Integration and Frequency Gradient in Primary Auditory Cortex. <i>Journal of Neurophysiology</i> , 2007, 98, 2933-2942.	0.9	30
85	Chronic reduction in inhibition reduces receptive field size in mouse auditory cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 13829-13834.	3.3	30
86	Spectrotemporal Processing in Spectral Tuning Modules of Cat Primary Auditory Cortex. <i>PLoS ONE</i> , 2012, 7, e31537.	1.1	29
87	Identification of a Monogenic Locus (<i>jams1</i>) Causing Juvenile Audiogenic Seizures in Mice. <i>Journal of Neuroscience</i> , 2002, 22, 10088-10093.	1.7	28
88	The Effects of the Argon Laser on Temperature Within the Cochlea. <i>Acta Oto-Laryngologica</i> , 1982, 93, 341-348.	0.3	27
89	Auditory Cortical Local Subnetworks Are Characterized by Sharply Synchronous Activity. <i>Journal of Neuroscience</i> , 2013, 33, 18503-18514.	1.7	27
90	Effects of Signal-to-Noise Ratio on Auditory Cortical Frequency Processing. <i>Journal of Neuroscience</i> , 2016, 36, 2743-2756.	1.7	27

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91	Encoding of Temporal Information by Timing, Rate, and Place in Cat Auditory Cortex. PLoS ONE, 2010, 5, e11531.	1.1	27
92	Synaptic plasticity as a cortical coding scheme. Current Opinion in Neurobiology, 2015, 35, 185-199.	2.0	26
93	Representation of CV-sounds in cat primary auditory cortex: intensity dependence. Speech Communication, 2003, 41, 93-106.	1.6	25
94	Neuronal Responses in Cat Primary Auditory Cortex to Electrical Cochlear Stimulation: IV. Activation Pattern for Sinusoidal Stimulation. Journal of Neurophysiology, 2003, 89, 3190-3204.	0.9	25
95	Time course of adaptation and recovery from adaptation in the cat auditory nerve neurophonic. Journal of the Acoustical Society of America, 1990, 88, 857-864.	0.5	23
96	Diverse effects of stimulus history in waking mouse auditory cortex. Journal of Neurophysiology, 2017, 118, 1376-1393.	0.9	23
97	Two thalamic pathways to primary auditory cortex. Neuroscience, 2008, 152, 151-159.	1.1	22
98	Realignment of Interaural Cortical Maps in Asymmetric Hearing Loss. Journal of Neuroscience, 2009, 29, 7065-7078.	1.7	22
99	Functional Topographies in the Primary Auditory Cortex of the Cat. Acta Oto-Laryngologica, 1991, 111, 7-16.	0.3	22
100	Behavioral training enhances cortical temporal processing in neonatally deafened juvenile cats. Journal of Neurophysiology, 2011, 106, 944-959.	0.9	21
101	Improved stimulus representation by short interspike intervals in primary auditory cortex. Journal of Neurophysiology, 2011, 105, 1908-1917.	0.9	21
102	Passive stimulation and behavioral training differentially transform temporal processing in the inferior colliculus and primary auditory cortex. Journal of Neurophysiology, 2017, 117, 47-64.	0.9	21
103	Functional Networks of Parvalbumin-Immunoreactive Neurons in Cat Auditory Cortex. Journal of Neuroscience, 2011, 31, 13333-13342.	1.7	20
104	Spectral Context Affects Temporal Processing in Awake Auditory Cortex. Journal of Neuroscience, 2013, 33, 9431-9450.	1.7	20
105	Modulation-Frequency-Specific Adaptation in Awake Auditory Cortex. Journal of Neuroscience, 2015, 35, 5904-5916.	1.7	20
106	Effects of extracochlear direct current stimulation on the ensemble auditory nerve activity of cats. Hearing Research, 1986, 21, 213-226.	0.9	19
107	Behavioral and Neurophysiological Thresholds for Electrical Cochlear Stimulation in the Deaf Cat. Audiology and Neuro-Otology, 2000, 5, 31-38.	0.6	19
108	Primary auditory cortical responses to electrical stimulation of the thalamus. Journal of Neurophysiology, 2014, 111, 1077-1087.	0.9	19

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109	Regional variations of noise-induced changes in operating range in cat AI. <i>Hearing Research</i> , 2000, 141, 107-116.	0.9	18
110	Spectral and Intensity Coding in the Auditory Midbrain. , 2005, , 312-345.		18
111	Spectral integration plasticity in cat auditory cortex induced by perceptual training. <i>Experimental Brain Research</i> , 2008, 184, 493-509.	0.7	18
112	Background noise exerts diverse effects on the cortical encoding of foreground sounds. <i>Journal of Neurophysiology</i> , 2017, 118, 1034-1054.	0.9	18
113	Perceptual Training Restores Impaired Cortical Temporal Processing Due to Lead Exposure. <i>Cerebral Cortex</i> , 2016, 26, 334-345.	1.6	17
114	Auditory Cortical Plasticity Dependent on Environmental Noise Statistics. <i>Cell Reports</i> , 2020, 30, 4445-4458.e5.	2.9	17
115	Encoding of alternating acoustical signals in the medial geniculate body of guinea pigs. <i>Hearing Research</i> , 1980, 3, 265-278.	0.9	16
116	Mammalian Auditory Cortex – Some Comparative Observations. , 1992, , 673-688.		16
117	Effect of Argon Laser Stapedotomy on Cochlear Potentials:II Alteration of the Compound Action Potential (CAP). <i>Acta Oto-Laryngologica</i> , 1983, 95, 47-53.	0.3	15
118	Local connection patterns of parvalbumin-positive inhibitory interneurons in rat primary auditory cortex. <i>Hearing Research</i> , 2011, 274, 121-128.	0.9	14
119	Distinct core thalamocortical pathways to central and dorsal primary auditory cortex. <i>Hearing Research</i> , 2011, 274, 95-104.	0.9	14
120	Representation of loudness in the auditory cortex. <i>Handbook of Clinical Neurology</i> / Edited By P J Vinken and G W Bruyn, 2015, 129, 73-84.	1.0	14
121	A Critical Role of Inhibition in Temporal Processing Maturation in the Primary Auditory Cortex. <i>Cerebral Cortex</i> , 2018, 28, 1610-1624.	1.6	14
122	Spectral Processing in Auditory Cortex. , 2011, , 275-308.		13
123	Influence of Argon Laser Stapedotomy on Cochlear Potentials III.Extracochlear Recorded DC Potential. <i>Acta Oto-Laryngologica</i> , 1983, 96, 49-55.	0.3	10
124	Auditory neurophonic responses to amplitude-modulated tones: Transfer functions and forward masking. <i>Hearing Research</i> , 1987, 31, 79-91.	0.9	10
125	Spatial organization of repetition rate processing in cat anterior auditory field. <i>Hearing Research</i> , 2011, 280, 70-81.	0.9	8
126	Synchrony, connectivity, and functional similarity in auditory midbrain local circuits. <i>Neuroscience</i> , 2016, 335, 30-53.	1.1	8

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127	Adaptation and recovery from adaptation of the auditory nerve neurophonic (ANN) using long duration tones. <i>Hearing Research</i> , 1992, 62, 131-141.	0.9	7
128	The Inferior Colliculus: Past, Present, and Future. , 2005, , 626-640.		6
129	Time-varying sounds: amplitude envelope modulations. , 2010, , .		4
130	Anisomorphic cortical reorganization in asymmetric sensorineural hearing loss. <i>Journal of Neurophysiology</i> , 2017, 118, 932-948.	0.9	4
131	Challenges to a Neuroanatomical Theory of Forebrain Auditory Plasticity. , 2005, , 109-125.		3
132	Information diversity in individual auditory cortical neurons is associated with functionally distinct coordinated neuronal ensembles. <i>Scientific Reports</i> , 2021, 11, 4064.	1.6	2
133	A Tribute to Jeffery A. Winer. <i>Hearing Research</i> , 2011, 274, 1-2.	0.9	1
134	Auditory Cortical Function: Insights from Current Approaches. <i>Acoustics Today</i> , 2012, 8, 42.	1.0	1
135	Spectral plasticity in monkey primary auditory cortex limits performance generalization in a temporal discrimination task. <i>Journal of Neurophysiology</i> , 2020, 124, 1798-1814.	0.9	1
136	Stimulus dependent transformations between synaptic and spiking receptive fields in auditory cortex. <i>Nature Communications</i> , 2020, 11, 1102.	5.8	1
137	Distinct Manifestations of Cooperative, Multidimensional Stimulus Representations in Different Auditory Forebrain Stations. <i>Cerebral Cortex</i> , 2020, 30, 3130-3147.	1.6	1
138	Plasticity of Multidimensional Receptive Fields in Core Rat Auditory Cortex Directed by Sound Statistics. <i>Neuroscience</i> , 2021, 467, 150-170.	1.1	1
139	Functional organization of spectral receptive fields in the primary auditory cortex of the owl monkey. , 1999, 415, 460.		1
140	Toward a Synthesis of Cellular Auditory Forebrain Functional Organization. , 2011, , 679-686.		1
141	Primary Auditory Cortex II. Some Functional Considerations. , 2020, , 657-680.		1
142	Listening post. <i>Nature</i> , 1996, 383, 34-34.	13.7	0
143	Input limitations for cortical combination-sensitive neurons coding stop-consonants?. <i>Behavioral and Brain Sciences</i> , 1998, 21, 284-284.	0.4	0
144	3 Splice. , 2008, , 1-1.		0

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145	Auditory Cortical Areas. , 2008, , 210-214.		0