Andrej Kral

List of Publications by Year
in descending order

136 papers	6,712 citations	108046 37 h-index	73587 79 g-index
142 all docs	142 docs citations	142 times ranked	4186 citing authors

#	Article	IF	Citations
1	Cochlear implantation in an animal model documents cochlear damage at the tip of the implant. Brazilian Journal of Otorhinolaryngology, 2022, 88, 546-555.	0.4	3
2	Late electrically-evoked compound action potentials as markers for acute micro-lesions of spiral ganglion neurons. Hearing Research, 2022, 413, 108057.	0.9	7
3	Cochlear implantation in children born preterm. Developmental Medicine and Child Neurology, 2022, 64, 408-408.	1.1	0
4	Temporal acuity is preserved in the auditory midbrain of aged mice. Neurobiology of Aging, 2022, 110, 47-60.	1.5	4
5	Distinct multisensory perceptual processes guide enhanced auditory recognition memory in older cochlear implant users. NeuroImage: Clinical, 2022, 33, 102942.	1.4	4
6	Deficient Recurrent Cortical Processing in Congenital Deafness. Frontiers in Systems Neuroscience, 2022, 16, 806142.	1.2	10
7	Variations in microanatomy of the human modiolus require individualized cochlear implantation. Scientific Reports, 2022, 12, 5047.	1.6	7
8	Executive functions and implicit learning skills in cochlear implant users. Laryngo- Rhino- Otologie, 2022, , .	0.2	0
9	First results of electrode reimplantation and its hypothetical dependence from artificial brain maturation. European Archives of Oto-Rhino-Laryngology, 2021, 278, 951-958.	0.8	6
10	The historic preconditions of neural prostheses. , 2021, , 3-18.		0
11	Electrode-tissue interface. , 2021, , 77-93.		0
12	Auditory neuroprostheses. , 2021, , 211-250.		0
13	History of neuroprostheses. , 2021, , 19-31.		0
14	Advanced concepts physical chemistry: Electrodes and electrolytes. , 2021, , 167-208.		0
15	Stimulation rules. , 2021, , 115-134.		0
16	Ethics and technology development. , 2021, , 33-51.		0
17	Brain adaptations to neuroprostheses. , 2021, , 149-165.		0
18	Tissue reaction to neuroprostheses. , 2021, , 135-148.		0

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19	Peripheral nerve and spinal stimulation. , 2021, , 305-328.		0
20	Pacemaker for the brain: Deep brain stimulation. , 2021, , 291-303.		0
21	Carbon-Nanotube-Coated Surface Electrodes for Cortical Recordings In Vivo. Nanomaterials, 2021, 11, 1029.	1.9	7
22	A cochlear scaling model for accurate anatomy evaluation and frequency allocation in cochlear implantation. Hearing Research, 2021, 403, 108166.	0.9	12
23	Unilateral congenital deafness affects binaural cues differently. , 2021, 100, .		0
24	An event-related brain potential study of auditory attention in cochlear implant users. Clinical Neurophysiology, 2021, 132, 2290-2305.	0.7	6
25	Artificial electrical stimulation: Principles, efficacy, and safety. , 2021, , 95-113.		0
26	Nature and nurture in hearing: Critical periods for therapy of deafness. Acoustical Science and Technology, 2020, 41, 54-58.	0.3	2
27	Dynamic range of cochlear implant stimulation is larger in residually hearing cochlea. Acoustical Science and Technology, 2020, 41, 380-381.	0.3	1
28	Deafness Weakens Interareal Couplings in the Auditory Cortex. Frontiers in Neuroscience, 2020, 14, 625721.	1.4	19
29	Cochlear Implants: Neuroprosthetic Hearing and the Brain. , 2020, , 923-944.		0
30	Reimplantation as an upgrade with extension of the cochlear coverage. Laryngo- Rhino- Otologie, 2020, 99, .	0.2	0
31	Reimplantationen als Upgrade mit Erweiterung der cochleÃren Coverage. Laryngo- Rhino- Otologie, 2020, 99, .	0.2	0
32	Level coding by phase duration and asymmetric pulse shape reduce channel interactions in cochlear implants. Hearing Research, 2020, 396, 108070.	0.9	4
33	Categorical processing of fast temporal sequences in the guinea pig auditory brainstem. Communications Biology, 2019, 2, 265.	2.0	1
34	32-channel mouse EEG: Visual evoked potentials. Journal of Neuroscience Methods, 2019, 325, 108316.	1.3	11
35	Neuronal Development of Hearing and Language: Cochlear Implants and Critical Periods. Annual Review of Neuroscience, 2019, 42, 47-65.	5.0	105
36	Animal and human studies on developmental monaural hearing loss. Hearing Research, 2019, 380, 60-74.	0.9	35

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37	Cathodic-leading pulses are more effective than anodic-leading pulses in intracortical microstimulation of the auditory cortex. Journal of Neural Engineering, 2019, 16, 036002.	1.8	11
38	Intracochlear near infrared stimulation: Feasibility of optoacoustic stimulation inÂvivo. Hearing Research, 2019, 371, 40-52.	0.9	25
39	The Optimal inter-implant interval in pediatric sequential bilateral implantation. Hearing Research, 2019, 372, 80-87.	0.9	29
40	3D Normal Coordinate Systems for Cortical Areas. Lecture Notes Series, Institute for Mathematical Sciences, 2019, , 167-179.	0.2	8
41	Congenital Deafness Reduces, But Does Not Eliminate Auditory Responsiveness in Cat Extrastriate Visual Cortex. Neuroscience, 2018, 375, 149-157.	1.1	7
42	The Summating Potential Is a Reliable Marker of Electrode Position in Electrocochleography: Cochlear Implant as a Theragnostic Probe. Ear and Hearing, 2018, 39, 687-700.	1.0	18
43	Intracortical Microstimulation Modulates Cortical Induced Responses. Journal of Neuroscience, 2018, 38, 7774-7786.	1.7	19
44	New thin-film surface electrode array enables brain mapping with high spatial acuity in rodents. Scientific Reports, 2018, 8, 3825.	1.6	38
45	Electrical stimulation of the midbrain excites the auditory cortex asymmetrically. Brain Stimulation, 2018, 11, 1161-1174.	0.7	7
46	Summationspotentiale als Marker der intracochleÃren Elektrodenposition. , 2018, 97, .		0
47	Summating Potential as a Marker of intracochlear Position of Electrodes. , 2018, 97, .		0
48	Active and passive processing of novel acoustic stimuli in cochlear-implant patients: An EEG study. , 2018, 97, .		0
49	Aktive und passive Verarbeitung neuartiger akustischer Reize bei Cochlea-Implantat Patienten: Eine EEG Studie. , 2018, 97, .		0
50	Origins of thalamic and cortical projections to the posterior auditory field in congenitally deaf cats. Hearing Research, 2017, 343, 118-127.	0.9	37
51	Auditory and audioâ€“visual processing in patients with cochlear, auditory brainstem, and auditory midbrain implants: An <scp>EEG</scp> study. Human Brain Mapping, 2017, 38, 2206-2225.	1.9	32
52	Active implant for optoacoustic natural sound enhancement. , 2017, , .		0
53	Encapsulated cell device approach for combined electrical stimulation and neurotrophic treatment of the deaf cochlea. Hearing Research, 2017, 350, 110-121.	0.9	23
54	Three-Dimensional Force Profile During Cochlear Implantation Depends on Individual Geometry and Insertion Trauma. Ear and Hearing, 2017, 38, e168-e179.	1.0	42

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55	Intracortical microstimulation differentially activates cortical layers based on stimulation depth. Brain Stimulation, 2017, 10, 684-694.	0.7	26
56	Physiological Mechanisms in Combined Electricâ€“Acoustic Stimulation. Otology and Neurotology, 2017, 38, e215-e223.	0.7	18
57	Spiral Form of the Human Cochlea Results from Spatial Constraints. Scientific Reports, 2017, 7, 7500.	1.6	77
58	Congenital deafness affects deep layers in primary and secondary auditory cortex. Journal of Comparative Neurology, 2017, 525, 3110-3125.	0.9	37
59	Higher-order auditory areas in congenital deafness: Top-down interactions and corticocortical decoupling. Hearing Research, 2017, 343, 50-63.	0.9	59
60	Induced cortical responses require developmental sensory experience. Brain, 2017, 140, 3153-3165.	3.7	33
61	Optoacoustic effect is responsible for laser-induced cochlear responses. Scientific Reports, 2016, 6, 28141.	1.6	45
62	Biohybrid cochlear implants in human neurosensory restoration. Stem Cell Research and Therapy, 2016, 7, 148.	2.4	39
63	The contribution of inferior colliculus activity to the auditory brainstem response (ABR) in mice. Hearing Research, 2016, 341, 109-118.	0.9	42
64	Consequences of Stimulus Type on Higher-Order Processing in Single-Sided Deaf Cochlear Implant Users. Audiology and Neuro-Otology, 2016, 21, 305-315.	0.6	30
65	Cochlear Implant Stimulation of a Hearing Ear Generates Separate Electrophonic and Electroneural Responses. Journal of Neuroscience, 2016, 36, 54-64.	1.7	37
66	Cross-Modal Plasticity in Higher-Order Auditory Cortex of Congenitally Deaf Cats Does Not Limit Auditory Responsiveness to Cochlear Implants. Journal of Neuroscience, 2016, 36, 6175-6185.	1.7	79
67	ATP-sensitive K+ channels (Kir6.1/SUR1) regulate gap junctional coupling in cochlear-supporting cells. Pflugers Archiv European Journal of Physiology, 2016, 468, 1215-1222.	1.3	2
68	Monaural Congenital Deafness Affects Aural Dominance and Degrades Binaural Processing. Cerebral Cortex, 2016, 26, 1762-1777.	1.6	85
69	Neurocognitive factors in sensory restoration of early deafness: a connectome model. Lancet Neurology, The, 2016, 15, 610-621.	4.9	236
70	Signal and response properties indicate an optoacoustic effect underlying the intra-cochlear laser-optical stimulation. , 2016, , .		1
71	Somatic memory and gain increase as preconditions for tinnitus: Insights from congenital deafness. Hearing Research, 2016, 333, 37-48.	0.9	32
72	How the brain learns to listen: deafness and the bionic ear. E-Neuroforum, 2015, 21, 21-28.	0.2	1

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73	Wie das Gehirn hÃ¶ren lernt â€“ GehÃ¶rlosigkeit und das bionische Ohr. E-Neuroforum, 2015, 21, .	0.2	0
74	Strengthening of Hearing Ear Representation Reduces Binaural Sensitivity in Early Single-Sided Deafness. Audiology and Neuro-Otology, 2015, 20, 7-12.	0.6	23
75	Deaf white cats. Current Biology, 2015, 25, R351-R353.	1.8	19
76	Asymmetric Hearing During Development: The Aural Preference Syndrome and Treatment Options. Pediatrics, 2015, 136, 141-153.	1.0	135
77	Auditory feedback modulates development of kitten vocalizations. Cell and Tissue Research, 2015, 361, 279-294.	1.5	10
78	How the brain learns to listen: deafness and the bionic ear. E-Neuroforum, 2015, 6, 21-28.	0.2	5
79	Electric-acoustic interactions in the hearing cochlea: Single fiber recordings. Hearing Research, 2015, 322, 112-126.	0.9	15
80	Optical stimulation of the hearing and deaf cochlea under thermal and stress confinement condition. , 2014, , .		2
81	Variations in microanatomy of the human cochlea. Journal of Comparative Neurology, 2014, 522, 3245-3261.	0.9	177
82	Beta-band activity in auditory pathways reflects speech localization and recognition in bilateral cochlear implant users. Human Brain Mapping, 2014, 35, 3107-3121.	1.9	16
83	Hearing and Age-Related Changes in the Gray Mouse Lemur. JARO - Journal of the Association for Research in Otolaryngology, 2014, 15, 993-1005.	0.9	39
84	S56: Neural signatures of speech localization and recognition in bilateral cochlear implant users. Clinical Neurophysiology, 2014, 125, S12.	0.7	0
85	Insertion site and sealing technique affect residual hearing and tissue formation after cochlear implantation. Hearing Research, 2014, 312, 21-27.	0.9	49
86	Response properties of local field potentials and multiunit activity in the mouse visual cortex. Neuroscience, 2013, 254, 141-151.	1.1	22
87	TGF-beta superfamily member activin A acts with BDNF and erythropoietin to improve survival of spiral ganglion neurons inÂvitro. Neuropharmacology, 2013, 75, 416-425.	2.0	29
88	Auditory critical periods: A review from systemâ€™s perspective. Neuroscience, 2013, 247, 117-133.	1.1	229
89	Influence of Core Auditory Cortical Areas on Acoustically Evoked Activity in Contralateral Primary Auditory Cortex. Journal of Neuroscience, 2013, 33, 776-789.	1.7	17
90	Single-sided deafness leads to unilateral aural preference within an early sensitive period. Brain, 2013, 136, 180-193.	3.7	160

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91	Speech Comprehension in Children and Adolescents After Sequential Bilateral Cochlear Implantation With Long Interimplant Interval. Otology and Neurotology, 2013, 34, 682-689.	0.7	55
92	Integrative Neuronal Functions in Deafness. Springer Handbook of Auditory Research, 2013, , 151-187.	0.3	1
93	Cross-modal plasticity in the congenitally deaf cat. Multisensory Research, 2013, 26, 37.	0.6	3
94	To Hear or Not to Hear: Neuroscience of Deafness. Springer Handbook of Auditory Research, 2013, , 1-15.	0.3	0
95	Neural representation in the auditory midbrain of the envelope of vocalizations based on a peripheral ear model. Frontiers in Neural Circuits, 2013, 7, 166.	1.4	16
96	Unilateral hearing during development: hemispheric specificity in plastic reorganizations. Frontiers in Systems Neuroscience, 2013, 7, 93.	1.2	75
97	Reorganization of the Connectivity of Cortical Field DZ in Congenitally Deaf Cat. PLoS ONE, 2013, 8, e60093.	1.1	97
98	Dissociated Neurons and Glial Cells Derived from Rat Inferior Colliculi after Digestion with Papain. PLoS ONE, 2013, 8, e80490.	1.1	19
99	Nanosecond laser pulse stimulation of the inner earâ€"a wavelength study. Biomedical Optics Express, 2012, 3, 3332.	1.5	71
100	Erratum to â€œDevelopment of Brainstem-Evoked Responses in Congenital Auditory Deprivationâ€• Neural Plasticity, 2012, 2012, 1-2.	1.0	36
101	Development of Brainstem-Evoked Responses in Congenital Auditory Deprivation. Neural Plasticity, 2012, 2012, 1-11.	1.0	23
102	Pulsed wavelength-dependent laser stimulation of the inner ear. Biomedizinische Technik, 2012, 57, .	0.9	12
103	Developmental neuroplasticity after cochlear implantation. Trends in Neurosciences, 2012, 35, 111-122.	4.2	446
104	Auditory Evoked Bursts in Mouse Visual Cortex during Isoflurane Anesthesia. PLoS ONE, 2012, 7, e49855.	1.1	48
105	Effect of sensory stimulation in rat barrel cortex, dorsolateral striatum and on corticostriatal functional connectivity. European Journal of Neuroscience, 2011, 33, 461-470.	1.2	10
106	Acoustic Events and â€œOptophonicâ€•Cochlear Responses Induced by Pulsed Near-Infrared LASER. IEEE Transactions on Biomedical Engineering, 2011, 58, 1648-1655.	2.5	82
107	Sensitivity to interaural time differences with binaural implants: Is it in the brain?. Cochlear Implants International, 2011, 12, S44-S50.	0.5	5
108	Fast Propagating Waves within the Rodent Auditory Cortex. Cerebral Cortex, 2011, 21, 166-177.	1.6	43

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109	Adaptive crossmodal plasticity in deaf auditory cortex. Progress in Brain Research, 2011, 191, 251-270.	0.9	33
110	Development of the Auditory Cortex. , 2011, , 443-463.		7
111	Cross-modal plasticity in specific auditory cortices underlies visual compensations in the deaf. Nature Neuroscience, 2010, 13, 1421-1427.	7.1	409
112	Cortical Representation of Interaural Time Difference in Congenital Deafness. Cerebral Cortex, 2010, 20, 492-506.	1.6	67
113	Profound Deafness in Childhood. New England Journal of Medicine, 2010, 363, 1438-1450.	13.9	320
114	Spatiotemporal Patterns of Cortical Activity with Bilateral Cochlear Implants in Congenital Deafness. Journal of Neuroscience, 2009, 29, 811-827.	1.7	55
115	Unimodal and cross-modal plasticity in the â€˜deafâ€™ auditory cortex. International Journal of Audiology, 2007, 46, 479-493.	0.9	124
116	What's to lose and what's to learn: Development under auditory deprivation, cochlear implants and limits of cortical plasticity. Brain Research Reviews, 2007, 56, 259-269.	9.1	264
117	Cochlear implants: cortical plasticity in congenital deprivation. Progress in Brain Research, 2006, 157, 283-402.	0.9	121
118	Brain Plasticity under Cochlear Implant Stimulation. Advances in Oto-Rhino-Laryngology, 2006, 64, 89-108.	1.6	48
119	Recruitment of the auditory cortex in congenitally deaf cats. , 2006, , 193-212.		5
120	Plastic Changes in the Primary Auditory Cortex in Cochlear Implanted Deaf Cats. , 2005, , 181-190.		0
121	Postnatal Cortical Development in Congenital Auditory Deprivation. Cerebral Cortex, 2005, 15, 552-562.	1.6	184
122	Input Desynchronization and Impaired Columnar Activation in Deprived Auditory Cortex Revealed by Independent Component Analysis. , 2005, , 191-195.		1
123	The influence of a sensitive period on central auditory development in children with unilateral and bilateral cochlear implants. Hearing Research, 2005, 203, 134-143.	0.9	480
124	Central Responses to Electrical Stimulation. Springer Handbook of Auditory Research, 2004, , 213-285.	0.3	14
125	Absence of cross-modal reorganization in the primary auditory cortex of congenitally deaf cats. Experimental Brain Research, 2003, 153, 605-613.	0.7	98
126	Hearing after Congenital Deafness: Central Auditory Plasticity and Sensory Deprivation. Cerebral Cortex, 2002, 12, 797-807.	1.6	185

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127	Plastic Changes in the Auditory Cortex of Congenitally Deaf Cats following Cochlear Implantation. Audiology and Neuro-Otology, 2001, 6, 203-206.	0.6	38
128	Delayed Maturation and Sensitive Periods in the Auditory Cortex. Audiology and Neuro-Otology, 2001, 6, 346-362.	0.6	149
129	Congenital Auditory Deprivation Reduces Synaptic Activity within the Auditory Cortex in a Layer-specific Manner. Cerebral Cortex, 2000, 10, 714-726.	1.6	177
130	Temporal Code and Speech Recognition. Acta Oto-Laryngologica, 2000, 120, 529-530.	0.3	7
131	Recruitment of the Auditory Cortex in Congenitally Deaf Cats by Long-Term Cochlear Electrostimulation. Science, 1999, 285, 1729-1733.	6.0	200
132	Monitoring of anaesthesia in neurophysiological experiments. NeuroReport, 1999, 10, 781-787.	0.6	29
133	Spatial resolution of cochlear implants: the electrical field and excitation of auditory afferents. Hearing Research, 1998, 121, 11-28.	0.9	239
134	Neural networks simulating the frequency discrimination of hearing for non-stationary short tone stimuli. Biological Cybernetics, 1996, 74, 359-366.	0.6	5
135	On lateral inhibition in the auditory system. General Physiology and Biophysics, 1996, 15, 109-27.	0.4	25
136	Neural networks simulating the frequency discrimination of hearing for non-stationary short tone stimuli. Biological Cybernetics, 1996, 74, 359-366.	0.6	3