

Zhi-De Deng

List of Publications by Year in descending order

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Version: 2024-02-01

75
papers

3,403
citations

279798

23
h-index

168389

53
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93
all docs

93
docs citations

93
times ranked

3319
citing authors

#	ARTICLE	IF	CITATIONS
1	Electric field depthâ€“focality tradeoff in transcranial magnetic stimulation: Simulation comparison of 50 coil designs. <i>Brain Stimulation</i> , 2013, 6, 1-13.	1.6	771
2	Analysis of First-Derivative Based QRS Detection Algorithms. <i>IEEE Transactions on Biomedical Engineering</i> , 2008, 55, 478-484.	4.2	345
3	Coil design considerations for deep transcranial magnetic stimulation. <i>Clinical Neurophysiology</i> , 2014, 125, 1202-1212.	1.5	222
4	Electroconvulsive Therapy Stimulus Parameters. <i>Journal of ECT</i> , 2010, 26, 159-174.	0.6	163
5	Electric field strength and focality in electroconvulsive therapy and magnetic seizure therapy: a finite element simulation study. <i>Journal of Neural Engineering</i> , 2011, 8, 016007.	3.5	152
6	Rigor and reproducibility in research with transcranial electrical stimulation: An NIMH-sponsored workshop. <i>Brain Stimulation</i> , 2018, 11, 465-480.	1.6	144
7	Simultaneous transcranial magnetic stimulation and single-neuron recording in alert non-human primates. <i>Nature Neuroscience</i> , 2014, 17, 1130-1136.	14.8	123
8	Regional electric field induced by electroconvulsive therapy in a realistic finite element head model: Influence of white matter anisotropic conductivity. <i>NeuroImage</i> , 2012, 59, 2110-2123.	4.2	98
9	Multifactorial Determinants of the Neurocognitive Effects of Electroconvulsive Therapy. <i>Journal of ECT</i> , 2014, 30, 165-176.	0.6	98
10	Effects of online repetitive transcranial magnetic stimulation (rTMS) on cognitive processing: A meta-analysis and recommendations for future studies. <i>Neuroscience and Biobehavioral Reviews</i> , 2019, 107, 47-58.	6.1	83
11	The development and modelling of devices and paradigms for transcranial magnetic stimulation. <i>International Review of Psychiatry</i> , 2017, 29, 115-145.	2.8	71
12	High-frequency repetitive TMS for suicidal ideation in adolescents with depression. <i>Journal of Affective Disorders</i> , 2018, 239, 282-290.	4.1	58
13	Extended Remediation of Sleep Deprived-Induced Working Memory Deficits Using fMRI-guided Transcranial Magnetic Stimulation. <i>Sleep</i> , 2013, 36, 857-871.	1.1	57
14	Electric field causes volumetric changes in the human brain. <i>ELife</i> , 2019, 8, .	6.0	57
15	The kynurenine pathway and bipolar disorder: intersection of the monoaminergic and glutamatergic systems and immune response. <i>Molecular Psychiatry</i> , 2021, 26, 4085-4095.	7.9	48
16	Neural circuit repair by low-intensity magnetic stimulation requires cellular magnetoreceptors and specific stimulation patterns. <i>Science Advances</i> , 2019, 5, eaav9847.	10.3	47
17	Effect of Anatomical Variability on Electric Field Characteristics of Electroconvulsive Therapy and Magnetic Seizure Therapy: A Parametric Modeling Study. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2015, 23, 22-31.	4.9	44
18	Coil design considerations for deep-brain transcranial magnetic stimulation (dTMS). , 2008, 2008, 5675-9.		41

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19	A generalized workflow for conducting electric field-optimized, fMRI-guided, transcranial magnetic stimulation. <i>Nature Protocols</i> , 2020, 15, 3595-3614.	12.0	36
20	Association between tDCS computational modeling and clinical outcomes in depression: data from the ELECT-TDCS trial. <i>European Archives of Psychiatry and Clinical Neuroscience</i> , 2021, 271, 101-110.	3.2	35
21	Redesigning existing transcranial magnetic stimulation coils to reduce energy: application to low field magnetic stimulation. <i>Journal of Neural Engineering</i> , 2018, 15, 036022.	3.5	33
22	Controlling Stimulation Strength and Focality in Electroconvulsive Therapy via Current Amplitude and Electrode Size and Spacing. <i>Journal of ECT</i> , 2013, 29, 321-331.	0.6	31
23	Device-Based Modulation of Neurocircuits as a Therapeutic for Psychiatric Disorders. <i>Annual Review of Pharmacology and Toxicology</i> , 2020, 60, 591-614.	9.4	29
24	Neurocognitive Effects of Combined Electroconvulsive Therapy (ECT) and Venlafaxine in Geriatric Depression: Phase 1 of the PRIDE Study. <i>American Journal of Geriatric Psychiatry</i> , 2020, 28, 304-316.	1.2	28
25	Mechanistic link between right prefrontal cortical activity and anxious arousal revealed using transcranial magnetic stimulation in healthy subjects. <i>Neuropsychopharmacology</i> , 2020, 45, 694-702.	5.4	28
26	Electroconvulsive therapy, electric field, neuroplasticity, and clinical outcomes. <i>Molecular Psychiatry</i> , 2022, 27, 1676-1682.	7.9	28
27	Heart Rate Variability in Pediatric Obstructive Sleep Apnea. , 2006, 2006, 3565-8.		27
28	Effect of anatomical variability on neural stimulation strength and focality in electroconvulsive therapy (ECT) and magnetic seizure therapy (MST). , 2009, 2009, 682-8.		27
29	Quantitative Analysis of QRS Detection Algorithms Based on the First Derivative of the ECG. , 2006, 2006, 1788-91.		26
30	Statistical Model of Motor-Evoked Potentials. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 1539-1545.	4.9	26
31	Low-frequency parietal repetitive transcranial magnetic stimulation reduces fear and anxiety. <i>Translational Psychiatry</i> , 2020, 10, 68.	4.8	26
32	In vitro Magnetic Stimulation: A Simple Stimulation Device to Deliver Defined Low Intensity Electromagnetic Fields. <i>Frontiers in Neural Circuits</i> , 2016, 10, 85.	2.8	25
33	Utilizing transcranial direct current stimulation to enhance laparoscopic technical skills training: A randomized controlled trial. <i>Brain Stimulation</i> , 2020, 13, 863-872.	1.6	21
34	Electric field strength induced by electroconvulsive therapy is associated with clinical outcome. <i>NeuroImage: Clinical</i> , 2021, 30, 102581.	2.7	21
35	Precision non-implantable neuromodulation therapies: a perspective for the depressed brain. <i>Revista Brasileira De Psiquiatria</i> , 2020, 42, 403-419.	1.7	19
36	Using diffusion tensor imaging to effectively target TMS to deep brain structures. <i>NeuroImage</i> , 2022, 249, 118863.	4.2	19

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37	Neuromodulation for mood and memory: from the engineering bench to the patient bedside. <i>Current Opinion in Neurobiology</i> , 2015, 30, 38-43.	4.2	18
38	Longitudinal Neurocognitive Effects of Combined Electroconvulsive Therapy (ECT) and Pharmacotherapy in Major Depressive Disorder in Older Adults: Phase 2 of the PRIDE Study. <i>American Journal of Geriatric Psychiatry</i> , 2022, 30, 15-28.	1.2	18
39	Regional electric field induced by electroconvulsive therapy: A finite element simulation study. , 2010, 2010, 2045-8.		14
40	Controlling Stimulation Strength and Focality in Electroconvulsive Therapy via Current Amplitude and Electrode Size and Spacing. <i>Journal of ECT</i> , 2013, 29, 325-335.	0.6	14
41	Biophysical mechanisms of electroconvulsive therapy-induced volume expansion in the medial temporal lobe: A longitudinal in vivo human imaging study. <i>Brain Stimulation</i> , 2021, 14, 1038-1047.	1.6	14
42	Transcranial magnetic stimulation in the presence of deep brain stimulation implants: Induced electrode currents. , 2010, 2010, 6821-4.		13
43	Magnetic seizure therapy: Towards personalized seizure therapy for major depression. <i>Personalized Medicine in Psychiatry</i> , 2019, 17-18, 37-42.	0.1	13
44	Proof of concept study to develop a novel connectivity-based electric-field modelling approach for individualized targeting of transcranial magnetic stimulation treatment. <i>Neuropsychopharmacology</i> , 2022, 47, 588-598.	5.4	13
45	Brain network properties in depressed patients receiving seizure therapy: A graph theoretical analysis of peri-treatment resting EEG. , 2015, 2015, 2203-6.		12
46	A double-blind pilot dosing study of low field magnetic stimulation (LFMS) for treatment-resistant depression (TRD). <i>Journal of Affective Disorders</i> , 2019, 249, 286-293.	4.1	12
47	Neural and Psychological Predictors of Cognitive Enhancement and Impairment from Neurostimulation. <i>Advanced Science</i> , 2020, 7, 1902863.	11.2	12
48	Modulation of Resting Connectivity Between the Mesial Frontal Cortex and Basal Ganglia. <i>Frontiers in Neurology</i> , 2019, 10, 587.	2.4	11
49	Noninvasive neuromodulation of the prefrontal cortex in mental health disorders. <i>Neuropsychopharmacology</i> , 2022, 47, 361-372.	5.4	11
50	Electric Field Modeling for Transcranial Magnetic Stimulation and Electroconvulsive Therapy. , 2019, , 75-84.		9
51	Transcranial magnetic stimulation coil with electronically switchable active and sham modes. , 2011, 2011, 1993-6.		8
52	Transcranial Direct Current Stimulation Applied to the Dorsolateral and Ventromedial Prefrontal Cortices in Smokers Modifies Cognitive Circuits Implicated in the Nicotine Withdrawal Syndrome. <i>Biological Psychiatry: Cognitive Neuroscience and Neuroimaging</i> , 2020, 5, 448-460.	1.5	8
53	Angle-tuned coils: attractive building blocks for TMS with improved depth-spread performance. <i>Journal of Neural Engineering</i> , 2022, 19, 026059.	3.5	8
54	Influence of white matter conductivity anisotropy on electric field strength induced by electroconvulsive therapy. , 2011, 2011, 5473-6.		7

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55	Ictal Theta Power as an Electroconvulsive Therapy Safety Biomarker. <i>Journal of ECT</i> , 2022, 38, 88-94.	0.6	7
56	Not So Fast. <i>Journal of Clinical Psychiatry</i> , 2020, 81, .	2.2	6
57	Electroconvulsive therapy in the presence of deep brain stimulation implants: Electric field effects. , 2010, 2010, 2049-52.		5
58	On the characterization of coils for deep transcranial magnetic stimulation. <i>Clinical Neurophysiology</i> , 2015, 126, 1456-1457.	1.5	5
59	Application of Non-Invasive Brain Stimulation in Psychophysiology. , 0, , 116-150.		5
60	Continuous Theta-Burst Stimulation to the Right Dorsolateral Prefrontal Cortex May Increase Potentiated Startle in Healthy Individuals. <i>Biological Psychiatry Global Open Science</i> , 2023, 3, 470-479.	2.2	5
61	A study protocol for an ongoing multi-arm, randomized, double-blind, sham-controlled clinical trial with digital features, using portable transcranial electrical stimulation and internet-based behavioral therapy for major depression disorders: The PSYLECT study. <i>Expert Review of Neurotherapeutics</i> , 2022, 22, 513-523.	2.8	5
62	On the stimulation depth of transcranial magnetic stimulation coils. <i>Clinical Neurophysiology</i> , 2015, 126, 843-844.	1.5	4
63	Electric field characteristics of low-field synchronized transcranial magnetic stimulation (sTMS). , 2017, 2017, 1445-1448.		3
64	Topography of seizures induced by electroconvulsive therapy and magnetic seizure therapy. , 2013, , .		2
65	Measuring the Effect of Transcranial Direct Current Stimulation (tDCS) on Large-Scale Brain Networks With Simultaneous Functional Magnetic Resonance Imaging (fMRI). <i>Biological Psychiatry</i> , 2020, 87, S412.	1.3	2
66	T176. Controllability of Structural Brain Networks in Depressed Patients Receiving Repetitive Transcranial Magnetic Stimulation. <i>Biological Psychiatry</i> , 2018, 83, S196.	1.3	1
67	599. Cortical Excitability in Patients with Treatment Resistant Depression. <i>Biological Psychiatry</i> , 2017, 81, S242-S243.	1.3	0
68	F171. Ketamine Modulates Kynurenine Pathway in Mood Disorders: A Longitudinal Structural Equation Model. <i>Biological Psychiatry</i> , 2018, 83, S304-S305.	1.3	0
69	S112. A Spectral Method for Determining Cortical Silent Period Induced by Transcranial Magnetic Stimulation. <i>Biological Psychiatry</i> , 2019, 85, S340-S341.	1.3	0
70	161. The Relationship Among Electric-Field Distributions, Neuroimaging Findings and Clinical Outcomes in ECT. <i>Biological Psychiatry</i> , 2019, 85, S67.	1.3	0
71	T15. Repetitive Transcranial Magnetic Stimulation Reveals a Causal Link Between Right dlPFC Activity and Anxiety Expression. <i>Biological Psychiatry</i> , 2019, 85, S135.	1.3	0
72	Using Mnemonic Similarity Task to Assess Medial Temporal Lobe Function: A Magnetoencephalography Study. <i>Biological Psychiatry</i> , 2020, 87, S237-S238.	1.3	0

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73	The Effect of Electric Field on the Human Brain. Biological Psychiatry, 2020, 87, S231.	1.3	0
74	Factor Structure of the Hamilton Depression Rating Scale During Electroconvulsive Therapy and Magnetic Seizure Therapy in the Treatment of Major Depression. Biological Psychiatry, 2020, 87, S288.	1.3	0
75	Heart Rate Variability in Pediatric Obstructive Sleep Apnea. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0