

Omid Majdani

List of Publications by Year in descending order

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257450

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99
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99
docs citations

99
times ranked

1225
citing authors

#	ARTICLE	IF	CITATIONS
1	Automatic Segmentation of Intracochlear Anatomy in Conventional CT. IEEE Transactions on Biomedical Engineering, 2011, 58, 2625-2632.	4.2	145
2	Cochlear length determination using Cone Beam Computed Tomography in a clinical setting. Hearing Research, 2014, 316, 65-72.	2.0	141
3	A robot-guided minimally invasive approach for cochlear implant surgery: preliminary results of a temporal bone study. International Journal of Computer Assisted Radiology and Surgery, 2009, 4, 475-486.	2.8	110
4	Investigation of the effect of cochlear implant electrode length on speech comprehension in quiet and noise compared with the results with users of electro-acoustic-stimulation, a retrospective analysis. PLoS ONE, 2017, 12, e0174900.	2.5	101
5	Hearing Preservation Outcomes with Different Cochlear Implant Electrodes: Nucleus® Hybridâ„¢-L24 and Nucleus Freedomâ„¢ CI422. Audiology and Neuro-Otology, 2014, 19, 293-309.	1.3	91
6	Clinical Validation of Percutaneous Cochlear Implant Surgery: Initial Report. Laryngoscope, 2008, 118, 1031-1039.	2.0	82
7	The Impact of Electrode Array Length on Hearing Preservation in Cochlear Implantation. Otology and Neurotology, 2016, 37, 1006-1015.	1.3	76
8	Force measurement of insertion of cochlear implant electrode arrays in vitro: comparison of surgeon to automated insertion tool. Acta Oto-Laryngologica, 2010, 130, 31-36.	0.9	73
9	Clinical Validation Study of Percutaneous Cochlear Access Using Patient-Customized Microstereotactic Frames. Otology and Neurotology, 2010, 31, 94-99.	1.3	71
10	Demagnetization of Cochlear Implants and Temperature Changes in 3.0T MRI Environment. Otolaryngology - Head and Neck Surgery, 2008, 139, 833-839.	1.9	62
11	A True Minimally Invasive Approach for Cochlear Implantation. Otology and Neurotology, 2008, 29, 120-123.	1.3	51
12	Patient specific selection of lateral wall cochlear implant electrodes based on anatomical indication ranges. PLoS ONE, 2018, 13, e0206435.	2.5	51
13	An automated insertion tool for cochlear implants: another step towards atraumatic cochlear implant surgery. International Journal of Computer Assisted Radiology and Surgery, 2010, 5, 163-171.	2.8	47
14	Artifacts caused by cochlear implants with non-removable magnets in 3T MRI: phantom and cadaveric studies. European Archives of Oto-Rhino-Laryngology, 2009, 266, 1885-1890.	1.6	46
15	The Value of Digital Volume Tomography in Assessing the Position of Cochlear Implant Arrays in Temporal Bone Specimens. Ear and Hearing, 2010, 31, 413-419.	2.1	42
16	Automated insertion of preformed cochlear implant electrodes: evaluation of curling behaviour and insertion forces on an artificial cochlear model. International Journal of Computer Assisted Radiology and Surgery, 2010, 5, 173-181.	2.8	40
17	Auditory Midbrain Implant. Otology and Neurotology, 2007, 28, 31-38.	1.3	39
18	Biohybrid cochlear implants in human neurosensory restoration. Stem Cell Research and Therapy, 2016, 7, 148.	5.5	39

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19	Automatic determination of optimal linear drilling trajectories for cochlear access accounting for drillâ€positioning error. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , 2010, 6, 281-290.	2.3	38
20	Three-dimensional histological specimen preparation for accurate imaging and spatial reconstruction of the middle and inner ear. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2013, 8, 481-509.	2.8	37
21	Cochlear helix and duct length identification â€ Evaluation of different curve fitting techniques. <i>Cochlear Implants International</i> , 2018, 19, 268-283.	1.2	35
22	Image-Guided Technique in Neurotology. <i>Otolaryngologic Clinics of North America</i> , 2007, 40, 611-624.	1.1	30
23	Increase of Accuracy in Intraoperative Navigation Through High-Resolution Flat-Panel Volume Computed Tomography. <i>Otology and Neurotology</i> , 2007, 28, 129-134.	1.3	27
24	Investigation of ultra-low insertion speeds in an inelastic artificial cochlear model using custom-made cochlear implant electrodes. <i>European Archives of Oto-Rhino-Laryngology</i> , 2018, 275, 2947-2956.	1.6	27
25	Configuration optimization and experimental accuracy evaluation of a bone-attached, parallel robot for skull surgery. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2016, 11, 421-436.	2.8	26
26	Visualization, measurement and modelling of the cochlea using rotating midmodiolar slice planes. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2016, 11, 1855-1869.	2.8	26
27	Conception and design of an automated insertion tool for cochlear implants. , 2008, 2008, 5593-6.		25
28	Time of cochlear implant surgery in academic settings. <i>Otolaryngology - Head and Neck Surgery</i> , 2010, 142, 254-259.	1.9	24
29	An automated insertion tool for cochlear implants with integrated force sensing capability. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2014, 9, 481-494.	2.8	23
30	Insertion forces and intracochlear trauma in temporal bone specimens implanted with a straight atraumatic electrode array. <i>European Archives of Oto-Rhino-Laryngology</i> , 2017, 274, 2131-2140.	1.6	22
31	Placement of Intraventricular Catheters Using Flexible Electromagnetic Navigation and a Dynamic Reference Frame: A New Technique. <i>Stereotactic and Functional Neurosurgery</i> , 2007, 85, 243-248.	1.5	21
32	On the accuracy of cochlear duct length measurement in computed tomographic images. <i>European Archives of Oto-Rhino-Laryngology</i> , 2018, 275, 1077-1085.	1.6	17
33	Three-dimensional modeling of the cochlea by use of an arc fitting approach. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2016, 19, 1785-1799.	1.6	16
34	Does severity of cerebral MRI lesions in congenital CMV infection correlates with the outcome of cochlear implantation?. <i>European Archives of Oto-Rhino-Laryngology</i> , 2017, 274, 1397-1403.	1.6	16
35	Impact of the surgical wound closure technique on the revision surgery rate after subtotal petrosectomy. <i>European Archives of Oto-Rhino-Laryngology</i> , 2016, 273, 3641-3646.	1.6	15
36	Three-dimensional hard and soft tissue imaging of the human cochlea by scanning laser optical tomography (SLOT). <i>PLoS ONE</i> , 2017, 12, e0184069.	2.5	14

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37	Temporal bone borehole accuracy for cochlear implantation influenced by drilling strategy: an in vitro study. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2014, 9, 1033-1043.	2.8	13
38	Percutaneous access to the petrous apex in vitro using customized micro-stereotactic frames based on image-guided surgical technology. <i>Acta Oto-Laryngologica</i> , 2010, 130, 458-463.	0.9	12
39	Percutaneous access to the petrous apex in vitro using customized micro-stereotactic frames based on image-guided surgical technology. <i>Acta Oto-Laryngologica</i> , 2009, , 1-6.	0.9	11
40	Characterizing the size of the target region for atraumatic opening of the cochlea through the facial recess. <i>Computerized Medical Imaging and Graphics</i> , 2019, 77, 101655.	5.8	10
41	The Use of Clinically Measurable Cochlear Parameters in Cochlear Implant Surgery as Indicators for Size, Shape, and Orientation of the Scala Tympani. <i>Ear and Hearing</i> , 2021, 42, 1034-1041.	2.1	10
42	Force measurement of insertion of cochlear implant electrode arrays in vitro: comparison of surgeon to automated insertion tool. <i>Acta Oto-Laryngologica</i> , 0, , 1-6.	0.9	10
43	Determination of the curling behavior of a preformed cochlear implant electrode array. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2011, 6, 421-433.	2.8	9
44	Mechanical characterization of bone anchors used with a bone-attached, parallel robot for skull surgery. <i>Medical Engineering and Physics</i> , 2015, 37, 460-468.	1.7	9
45	Common Audiological Functional Parameters (CAFPAs): statistical and compact representation of rehabilitative audiological classification based on expert knowledge. <i>International Journal of Audiology</i> , 2019, 58, 231-245.	1.7	9
46	Relations Between Scalar Shift and Insertion Depth in Human Cochlear Implantation. <i>Otology and Neurotology</i> , 2020, 41, 178-185.	1.3	9
47	Accuracy of computer-aided geometric 3D reconstruction based on histological serial microgrinding preparation. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2011, 14, 581-594.	1.6	8
48	Individual Optimization of the Insertion of a Preformed Cochlear Implant Electrode Array. <i>International Journal of Otolaryngology</i> , 2015, 2015, 1-22.	0.9	8
49	One step geometrical calibration method for optical coherence tomography. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 015301.	2.2	8
50	Modeling and segmentation of intra-cochlear anatomy in conventional CT. <i>Proceedings of SPIE</i> , 2010, , .	0.8	7
51	Localization accuracy of sphere fiducials in computed tomography images. , 2014, , .		7
52	Common Audiological Functional Parameters (CAFPAs) for single patient cases: deriving statistical models from an expert-labelled data set. <i>International Journal of Audiology</i> , 2020, 59, 534-547.	1.7	7
53	Towards Intra-operative OCT Guidance for Automatic Head Surgery: First Experimental Results. <i>Lecture Notes in Computer Science</i> , 2013, 16, 347-354.	1.3	7
54	Percutaneous access to the petrous apex in vitro using customized micro-stereotactic frames based on image-guided surgical technology. <i>Acta Oto-Laryngologica</i> , 0, , 1-6.	0.9	7

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55	Design optimization of a bone-attached, redundant and reconfigurable parallel kinematic device for skull surgery. , 2014, , .		6
56	An experimental evaluation of loads occurring during guided drilling for cochlear implantation. International Journal of Computer Assisted Radiology and Surgery, 2015, 10, 1625-1637.	2.8	6
57	Impact of the round window membrane accessibility on hearing preservation in adult cochlear implantation. European Archives of Oto-Rhino-Laryngology, 2017, 274, 3049-3056.	1.6	6
58	Increasing the resolution of morphological 3D image data sets through image stitching: application to the temporal bone. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2017, 5, 438-445.	1.9	5
59	Synthesis process of a compliant fluidmechanical actuator for use as an adaptive electrode carrier for cochlear implants. Mechanism and Machine Theory, 2017, 112, 155-171.	4.5	5
60	Impact of anatomical variations on insertion forces. Current Directions in Biomedical Engineering, 2018, 4, 509-512.	0.4	5
61	Dimensions of artefacts caused by cochlear and auditory brainstem implants in magnetic resonance imaging. Cochlear Implants International, 2020, 21, 67-74.	1.2	5
62	Experimental Visualization of Labyrinthine Structure with Optical Coherence Tomography. Iranian Journal of Otorhinolaryngology, 2017, 29, 5-9.	0.4	5
63	Electro-Mechanical Stimulation of the Cochlea by Vibrating Cochlear Implant Electrodes. Otology and Neurotology, 2015, 36, 1753-1758.	1.3	4
64	Tubular manipulators: a new concept for intracochlear positioning of an auditory prosthesis. Current Directions in Biomedical Engineering, 2015, 1, 515-518.	0.4	4
65	Workflow and simulation of image-to-physical registration of holes inside spongy bone. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 1425-1437.	2.8	4
66	Concept description and accuracy evaluation of a moldable surgical targeting system. Journal of Medical Imaging, 2021, 8, 015003.	1.5	4
67	Penetration of CO ₂ laser into the otic capsule using a hand-held, flexible-fiber delivery system. Lasers in Surgery and Medicine, 2009, 41, 509-513.	2.1	3
68	A Step Toward Identification of Surgical Actions in Mastoidectomy. IEEE Transactions on Biomedical Engineering, 2010, 57, 479-487.	4.2	3
69	A one step vs. a multi step geometric calibration of an optical coherence tomography. , 2013, , .		3
70	Toward automated cochlear implant insertion using tubular manipulators. Proceedings of SPIE, 2016, , .	0.8	3
71	Micro-stereotactic frame utilizing bone cement for individual fabrication: an initial investigation of its accuracy. Proceedings of SPIE, 2017, , .	0.8	3
72	Toward steerable electrodes. An overview of concepts and current research.. Current Directions in Biomedical Engineering, 2017, 3, 765-769.	0.4	3

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73	Towards a one step geometric calibration of an optical coherence tomography. Proceedings of SPIE, 2012, , .	0.8	2
74	Insertion trauma of a cochlear implant electrode array with Nitinol inlay. European Archives of Oto-Rhino-Laryngology, 2016, 273, 3573-3585.	1.6	2
75	Histological evaluation of a cochlear implant electrode array with electrically activated shape change for perimodiolar positioning. Current Directions in Biomedical Engineering, 2018, 4, 145-148.	0.4	2
76	Minimally invasive mastoidectomy approach using a mouldable surgical targeting system. Current Directions in Biomedical Engineering, 2018, 4, 403-406.	0.4	2
77	Workflow assessment as a preclinical development tool. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 1389-1401.	2.8	2
78	Force measurement at the insertion process of cochlear implant electrodes. Biomedizinische Technik, 2012, 57, .	0.8	1
79	Normal distributions transform in multi-modal image registration of optical coherence tomography and computed tomography datasets. , 2014, , .		1
80	Cochlear shape description and analyzing via medial models. , 2015, , .		1
81	Determination of optimal excitation patterns for local mechanical inner ear stimulation using a physiologically-based model. Biomedical Microdevices, 2016, 18, 36.	2.8	1
82	Nachgiebiger Elektrodenträger für Cochlea-Implantate mit fluidischer Aktuierung. Forschung Im Ingenieurwesen/Engineering Research, 2016, 80, 57-69.	1.6	1
83	Phantom-based evaluation method for surgical assistance devices in minimally invasive cochlear implantation. , 2017, , .		1
84	Toward a cochlear implant electrode array with shape memory effect for post-insertion perimodiolar positioning. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 0, , .	3.4	1
85	Disablement of a surgical drill via CT guidance to protect vital anatomy. Proceedings of SPIE, 2009, , .	0.8	0
86	Accuracy of optical navigation systems for automatic head surgery: optical tracking versus optical coherence tomography. Proceedings of SPIE, 2014, , .	0.8	0
87	Stereotactic robotic system for ear surgery. Journal of Laryngology and Otology, 2016, 130, S30-S30.	0.8	0
88	Track P. Medical Implants / Implant Development. Biomedizinische Technik, 2016, 61, 179-199.	0.8	0
89	Session 33: Modelling and simulation II. Biomedizinische Technik, 2017, 62, .	0.8	0
90	Investigation of intracochlear dual actuator stimulation in a scaled test rig. Current Directions in Biomedical Engineering, 2017, 3, 119-122.	0.4	0

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91	Numerical analysis of intracochlear mechanical auditory stimulation using piezoelectric bending actuators. <i>Medical and Biological Engineering and Computing</i> , 2018, 56, 733-747.	2.8	0
92	Reconstruction accuracy of an automated serial cross-sectional preparation technique for morphological human temporal bone imaging. <i>Current Directions in Biomedical Engineering</i> , 2019, 5, 191-194.	0.4	0
93	Bildbasierte Navigationsdatenkorrektur für endoskopische Augmented Reality Anwendungen. <i>Informatik Aktuell</i> , 2009, , 351-355.	0.6	0
94	Korrektur geometrischer Verzeichnungen zur Kalibrierung von optischen Kohärenztomographiesystemen. <i>Informatik Aktuell</i> , 2015, , 233-238.	0.6	0
95	Preparation of Human Inner Ear Structures for High Resolution Imaging Studies. <i>Archives of Neuroscience</i> , 2017, In Press, .	0.3	0
96	Accuracy Assessment of Different Registration and Imaging Methods on Image-Guided Surgery of Lateral Skull Base. <i>Archives of Neuroscience</i> , 2018, In Press, .	0.3	0
97	Feasibility Assessment of Optical Coherence Tomography-Guided Laser Labeling in Middle Cranial Fossa Approach. <i>Iranian Journal of Otorhinolaryngology</i> , 2018, 30, 321-327.	0.4	0