

Ulrich G Hofmann

List of Publications by Year in descending order

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Version: 2024-02-01

137
papers

2,566
citations

257101

24
h-index

233125

45
g-index

154
all docs

154
docs citations

154
times ranked

3021
citing authors

#	ARTICLE	IF	CITATIONS
1	Tumor-associated reactive astrocytes aid the evolution of immunosuppressive environment in glioblastoma. <i>Nature Communications</i> , 2019, 10, 2541.	5.8	218
2	Investigating the Cytoskeleton of Chicken Cardiocytes with the Atomic Force Microscope. <i>Journal of Structural Biology</i> , 1997, 119, 84-91.	1.3	186
3	Spatially resolved multi-omics deciphers bidirectional tumor-host interdependence in glioblastoma. <i>Cancer Cell</i> , 2022, 40, 639-655.e13.	7.7	166
4	A 32-site neural recording probe fabricated by DRIE of SOI substrates. <i>Journal of Micromechanics and Microengineering</i> , 2002, 12, 414-419.	1.5	160
5	Actively controlled release of Dexamethasone from neural microelectrodes in a chronic in vivo study. <i>Biomaterials</i> , 2017, 129, 176-187.	5.7	154
6	T-cell dysfunction in the glioblastoma microenvironment is mediated by myeloid cells releasing interleukin-10. <i>Nature Communications</i> , 2022, 13, 925.	5.8	104
7	In-vivo implant mechanics of flexible, silicon-based ACREO microelectrode arrays in rat cerebral cortex. <i>IEEE Transactions on Biomedical Engineering</i> , 2006, 53, 934-940.	2.5	100
8	Lateral resolution of light-addressable potentiometric sensors: an experimental and theoretical investigation. <i>Sensors and Actuators A: Physical</i> , 1997, 63, 47-57.	2.0	70
9	Local Region Descriptors for Active Contours Evolution. <i>IEEE Transactions on Image Processing</i> , 2008, 17, 2275-2288.	6.0	60
10	Quantifying olfactory perception: mapping olfactory perception space by using multidimensional scaling and self-organizing maps. <i>Neurocomputing</i> , 2003, 52-54, 591-597.	3.5	49
11	Influence of Substrate Properties on the Topochemical Polymerization of Diacetylene Monolayers. <i>Langmuir</i> , 2001, 17, 3757-3765.	1.6	47
12	A simple implantation method for flexible, multisite microelectrodes into rat brains. <i>Frontiers in Neuroengineering</i> , 2013, 6, 6.	4.8	47
13	Ultrathin fluorescent layers for monitoring the axial resolution in confocal and two-photon fluorescence microscopy. <i>Journal of Microscopy</i> , 1998, 191, 135-140.	0.8	43
14	A neural probe process enabling variable electrode configurations. <i>Sensors and Actuators B: Chemical</i> , 2004, 102, 51-58.	4.0	42
15	Unconditioned and conditioned muscular responses in patients with chronic back pain and chronic tension-type headaches and in healthy controls. <i>Pain</i> , 2010, 150, 66-74.	2.0	42
16	In vivo monitoring of glial scar proliferation on chronically implanted neural electrodes by fiber optical coherence tomography. <i>Frontiers in Neuroengineering</i> , 2014, 7, 34.	4.8	42
17	Comparison of algorithms to quantify muscle fatigue in upper limb muscles based on sEMG signals. <i>Medical Engineering and Physics</i> , 2016, 38, 1260-1269.	0.8	41
18	Learning and Tracking the 3D Body Shape of Freely Moving Infants from RGB-D sequences. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2020, 42, 2540-2551.	9.7	39

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19	Human organotypic brain slice culture: a novel framework for environmental research in neuro-oncology. <i>Life Science Alliance</i> , 2019, 2, e201900305.	1.3	38
20	Learning an Infant Body Model from RGB-D Data for Accurate Full Body Motion Analysis. <i>Lecture Notes in Computer Science</i> , 2018, , 792-800.	1.0	36
21	Electrical high frequency stimulation of the caudate nucleus induces local GABA outflow in freely moving rats. <i>Journal of Neuroscience Methods</i> , 2007, 159, 286-290.	1.3	35
22	A Newcomer's Guide to Functional Near Infrared Spectroscopy Experiments. <i>IEEE Reviews in Biomedical Engineering</i> , 2020, 13, 292-308.	13.1	33
23	CMOS Neural Probe With 1600 Close-Packed Recording Sites and 32 Analog Output Channels. <i>Journal of Microelectromechanical Systems</i> , 2018, 27, 1023-1034.	1.7	29
24	Realtime bioelectrical data acquisition and processing from 128 channels utilizing the wavelet-transformation. <i>Neurocomputing</i> , 2003, 52-54, 247-254.	3.5	28
25	Textile-based, contactless ECG monitoring for non-ICU clinical settings. <i>Journal of Ambient Intelligence and Humanized Computing</i> , 2013, 4, 791-800.	3.3	28
26	Associative Interactions Within the Superficial Layers of the Entorhinal Cortex of the Guinea Pig. <i>Journal of Neurophysiology</i> , 2002, 88, 1159-1165.	0.9	24
27	A Miniaturized, Programmable Deep-Brain Stimulator for Group-Housing and Water Maze Use. <i>Frontiers in Neuroscience</i> , 2018, 12, 231.	1.4	23
28	Meclofenamate causes loss of cellular tethering and decoupling of functional networks in glioblastoma. <i>Neuro-Oncology</i> , 2021, 23, 1885-1897.	0.6	23
29	High-frequency electrical stimulation suppresses cholinergic accumbens interneurons in acute rat brain slices through GABA _B receptors. <i>European Journal of Neuroscience</i> , 2014, 40, 3653-3662.	1.2	22
30	Computer Vision for Medical Infant Motion Analysis: State of the Art and RGB-D Data Set. <i>Lecture Notes in Computer Science</i> , 2019, , 32-49.	1.0	21
31	Unsupervised spike sorting with ICA and its evaluation using GENESIS simulations. <i>Neurocomputing</i> , 2005, 65-66, 275-282.	3.5	19
32	Coronalin vivo forward-imaging of rat brain morphology with an ultra-small optical coherence tomography fiber probe. <i>Physics in Medicine and Biology</i> , 2013, 58, 555-568.	1.6	19
33	Body pose estimation in depth images for infant motion analysis. , 2017, 2017, 1909-1912.		19
34	A Novel High Channel-Count System for Acute Multisite Neuronal Recordings. <i>IEEE Transactions on Biomedical Engineering</i> , 2006, 53, 1672-1677.	2.5	18
35	Towards a capacitively coupled electrocardiography system for car seat integration. <i>IFMBE Proceedings</i> , 2009, , 1217-1221.	0.2	17
36	Color Transitions in Monolayers of a Polymerizable Single-Chain Diacetylenic Lipid. <i>Langmuir</i> , 2001, 17, 1518-1524.	1.6	16

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37	Test of spike-sorting algorithms on the basis of simulated network data. <i>Neurocomputing</i> , 2002, 44-46, 1119-1126.	3.5	16
38	Diacetylene Chelator Lipids as Support for Immobilization and Imaging of Proteins by Atomic Force Microscopy. <i>Langmuir</i> , 1998, 14, 4836-4842.	1.6	15
39	New life for old wires: electrochemical sensor method for neural implants. <i>Journal of Neural Engineering</i> , 2020, 17, 016007.	1.8	15
40	A robotic assistant for stereotactic neurosurgery on small animals. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , 2008, 4, 295-303.	1.2	14
41	An Interactive Channel Model of the Basal Ganglia: Bifurcation Analysis Under Healthy and Parkinsonian Conditions. <i>Journal of Mathematical Neuroscience</i> , 2013, 3, 14.	2.4	14
42	Inhibition of metabotropic glutamate receptor III facilitates sensitization to alkylating chemotherapeutics in glioblastoma. <i>Cell Death and Disease</i> , 2021, 12, 723.	2.7	14
43	AFM-Investigation of the molecular structure of films from a polymerizable two-chain lipid. <i>Chemistry and Physics of Lipids</i> , 1994, 73, 81-89.	1.5	13
44	Electrical high frequency stimulation modulates GABAergic activity in the nucleus accumbens of freely moving rats. <i>Neurochemistry International</i> , 2015, 90, 255-260.	1.9	13
45	Towards an automated, minimal invasive, precision craniotomy on small animals. , 2011, , .		12
46	Versatile 3D-printed headstage implant for group housing of rodents. <i>Journal of Neuroscience Methods</i> , 2016, 257, 134-138.	1.3	12
47	Quantitative synchrotron X-ray tomography of the material-tissue interface in rat cortex implanted with neural probes. <i>Scientific Reports</i> , 2019, 9, 7646.	1.6	12
48	Transcriptional characterization of the glial response due to chronic neural implantation of flexible microprobes. <i>Biomaterials</i> , 2021, 279, 121230.	5.7	12
49	Cellular Modulation of Polymeric Device Surfaces: Promise of Adult Stem Cells for Neuro-Prosthetics. <i>Frontiers in Neuroscience</i> , 2011, 5, 114.	1.4	11
50	Calibration of the motor-assisted robotic stereotaxy system: MARS. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2012, 7, 911-920.	1.7	11
51	Avatar navigation in Second Life using brain signals. , 2013, , .		11
52	Chronically Implanted Microelectrodes Cause c-fos Expression Along Their Trajectory. <i>Frontiers in Neuroscience</i> , 2019, 13, 1367.	1.4	11
53	A 64(128)-CHANNEL MULTISITE NEURONAL RECORDING SYSTEM. <i>Biomedizinische Technik</i> , 2002, 47, 194-197.	0.9	10
54	Detecting Stripe Artifacts in Ultrasound Images. <i>Journal of Digital Imaging</i> , 2009, 22, 548-557.	1.6	10

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55	Automated drill-stop by SVM classified audible signals. , 2012, 2012, 956-9.		10
56	A Wireless EEG Recording Method for Rat Use inside the Water Maze. PLoS ONE, 2016, 11, e0147730.	1.1	10
57	Maghemite nanoparticles coated by methacrylamide-based polymer for magnetic particle imaging. Journal of Nanoparticle Research, 2021, 23, 1.	0.8	10
58	Finite element simulation of transcranial current stimulation in realistic rat head model. , 2011, , .		9
59	Multimodal 2D Brain Computer Interface. , 2015, 2015, 1067-70.		9
60	Spherical assistant for stereotactic surgery. , 2007, , .		8
61	Neuromodulation of STDP through short-term changes in firing causality. Cognitive Neurodynamics, 2012, 6, 353-366.	2.3	8
62	Modeling effect of GABAergic current in a basal ganglia computational model. Cognitive Neurodynamics, 2012, 6, 333-341.	2.3	8
63	3D printers may reduce animal numbers to train neuroengineering procedures. , 2013, , .		8
64	Qualitative and quantitative evaluation of in vivo SD-OCT measurement of rat brain. Biomedical Optics Express, 2017, 8, 593.	1.5	8
65	MARS " Motor assisted robotic stereotaxy system. , 2011, , .		7
66	Wireless brain signal recordings based on capacitive electrodes. , 2013, , .		7
67	Effects of sampling rate on automated fatigue recognition in surface EMG signals. Current Directions in Biomedical Engineering, 2015, 1, 80-84.	0.2	7
68	A Simple Microelectrode Bundle for Deep Brain Recordings. , 2007, , .		6
69	Computer- and robot-assisted stereotaxy for high-precision small animal brain exploration / Computer- und robotergestützte Stereotaxie für hochpräzise Exploration des Kleintierhirns. Biomedizinische Technik, 2009, 54, 8-13.	0.9	6
70	Fiber spectral domain optical coherence tomography for in vivo rat brain imaging. Proceedings of SPIE, 2010, , .	0.8	6
71	The Double-H Maze: A Robust Behavioral Test for Learning and Memory in Rodents. Journal of Visualized Experiments, 2015, , e52667.	0.2	6
72	Systematic Evaluation of DBS Parameters in the Hemi-Parkinsonian Rat Model. Frontiers in Neuroscience, 2020, 14, 561008.	1.4	6

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73	Non-contact, non-obtrusive electrocardiography in clinical environments. , 2011, , .		5
74	Fabrication and implantation of hydrogel coated, flexible polyimide electrodes. , 2015, , .		5
75	Dynamically adjusted, scalable electrical stimulator for excitable tissue. , 2015, , .		5
76	Relationship between field potentials and spike activity in rat S1: Multi-site cortical recordings and analysis. Neurocomputing, 2000, 32-33, 591-596.	3.5	4
77	Stimulus representation in rat primary visual cortex: multi-electrode recordings with micro-machined silicon probes and estimation theory. Neurocomputing, 2002, 44-46, 407-416.	3.5	4
78	Multisite Microelectrodes for Use in Human Deep Brain Stimulation. , 2006, , .		4
79	Automatic measuring of quality criteria for heart valves. , 2007, 6512, 931.		4
80	In vivo implant mechanics of single-shaft microelectrodes in peripheral nervous tissue. , 2007, , .		4
81	A Simplified Production Method for Multimode Multisite Neuroprobes. , 2009, , .		4
82	Portable electrophysiologic monitoring based on the OMAP-family processor from a beginners' prospective. , 2009, , .		4
83	Estimating the spatial resolution of fNIRS sensors for BCI purposes. Proceedings of SPIE, 2014, , .	0.8	4
84	Removal of ECG artifacts from EMG signals with different artifact magnitudes by template subtraction. Current Directions in Biomedical Engineering, 2019, 5, 357-359.	0.2	4
85	Bilateral Intracranial Beta Activity During Forced and Spontaneous Movements in a 6-OHDA Hemi-PD Rat Model. Frontiers in Neuroscience, 2021, 15, 700672.	1.4	4
86	Molecular films from the polymerizable lipid ethyl morpholine pentacosadiynoic amide. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 2975-2980.	0.9	3
87	Handling large files of multisite microelectrode recordings for the European VSAMUEL consortium. Neurocomputing, 2001, 38-40, 1725-1734.	3.5	3
88	Synchronous stereo-video and biosignal recording ? a basic setup for Human-Computer-Interface applications. , 0, , .		3
89	An implantation technique for polyimide based flexible array probes facilitating neuronavigation and chronic implantation. Biomedizinische Technik, 2012, 57, .	0.9	3
90	Sleep, neuroengineering and dynamics. Cognitive Neurodynamics, 2012, 6, 211-214.	2.3	3

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91	Microfluidic drive for flexible brain implants. Current Directions in Biomedical Engineering, 2017, 3, 675-678.	0.2	3
92	When the Ostrich-Algorithm Fails: Blanking Method Affects Spike Train Statistics. Frontiers in Neuroscience, 2018, 12, 293.	1.4	3
93	N-Methyl-D-Aspartate Receptor Activation Interacts with Electrical High Frequency Stimulation in the Rat Caudate Nucleus in vitro and in vivo. Open Journal of Neuroscience, 2014, 4, 1.	1.2	3
94	Modulation of Extracellular Levels of 5-HT in the Caudate Putamen of Freely Moving Rats by High Frequency Stimulation of the Subthalamic Nucleus. The Open Neuroscience Journal, 2015, 8, 14-20.	0.8	3
95	Online 32-channel signal processing and integrated database improve navigation during cranial stereotactic surgeries. International Congress Series, 2004, 1268, 443-448.	0.2	2
96	An experimental setup for brain activity measurement based on near infrared spectroscopy. Biomedizinische Technik, 2012, 57, .	0.9	2
97	Reduction of periodic noise in Fourier domain optical coherence tomography images by frequency domain filtering. Biomedizinische Technik, 2012, 57, .	0.9	2
98	Long term in vivo stability and frequency response of polyimide based flexible array probes. Biomedizinische Technik, 2012, 57, .	0.9	2
99	Decoding finger movements from ECoG signals using Empirical Mode Decomposition. Biomedizinische Technik, 2012, 57, .	0.9	2
100	The chronic challenge—new vistas on long-term multisite contacts to the central nervous system. Frontiers in Neuroengineering, 2015, 8, 3.	4.8	2
101	Deep brain stimulation: increasing efficiency by alternative waveforms. Current Directions in Biomedical Engineering, 2016, 2, 145-148.	0.2	2
102	Removal of ECG Artifacts Affects Respiratory Muscle Fatigue Detection—A Simulation Study. Sensors, 2021, 21, 5663.	2.1	2
103	Towards Automated OCT-based Identification of White Brain Matter. , 2007, , 414-418.		2
104	Online-Classification of Capnographic Curves Using Artificial Neural Networks. IFMBE Proceedings, 2009, , 1096-1099.	0.2	2
105	Markerless Motion Analysis for Early Detection of Infantile Movement Disorders. IFMBE Proceedings, 2018, , 197-200.	0.2	2
106	A Fast Level-Set Method for Accurate Tracking of Articulated Objects with an Edge-Based Binary Speed Term. , 2007, , 828-839.		2
107	Anomalous pH dependence of the coexistence pressure of the polymerizable two-chain N-lipid methyl-bis(pentacosadiinoyl-oxethyl)-amine. European Biophysics Journal, 1997, 26, 271-275.	1.2	1
108	On-demand neural probes. , 0, , .		1

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109	Semichronic, Collocated Deep Brain Stimulation and Multisite Recording in Rats. , 2006, , .		1
110	Atrial Near-Field and Ventricular Far-Field Analysis by Automated Signal Processing at Rest and During Exercise. Annals of Noninvasive Electrocardiology, 2006, 11, 118-126.	0.5	1
111	Comparing Realistic Subthalamic Nucleus Neuron Models. , 2011, , .		1
112	Service based adhoc networking for patient's pain diary on mobile devices. Biomedizinische Technik, 2012, 57, .	0.9	1
113	In situ monitoring of brain tissue reaction of chronically implanted electrodes with an optical coherence tomography fiber system. , 2014, , .		1
114	Video tracking of swimming rodents on a reflective water surface. Current Directions in Biomedical Engineering, 2015, 1, 232-235.	0.2	1
115	First Steps towards Localized Opening of the Blood-Brain-Barrier by IR Laser Illumination Through the Rodent Skull. Current Directions in Biomedical Engineering, 2019, 5, 211-214.	0.2	1
116	Towards Safe Infrared Nerve Stimulation: A Systematic Experimental Approach. , 2019, 2019, 5909-5912.		1
117	Dual Layered Models of Light Scattering in the Near Infrared A: Optical Measurements and Simulation *. , 2019, 2019, 4770-4774.		1
118	Modular Current Stimulation System for Pre-clinical Studies. Frontiers in Neuroscience, 2020, 14, 408.	1.4	1
119	Experimental Setup for the Systematic Investigation of Infrared Neural Stimulation (INS). IFMBE Proceedings, 2019, , 77-81.	0.2	1
120	Wavelet Analysis of Spatiotemporal Network Oscillations Evoked in the Incilaria Brain. AIP Conference Proceedings, 2007, , .	0.3	0
121	Active contours that grow and compete driven by local region descriptors. , 2009, , .		0
122	Automated image analysis of immunohistochemical stained brain slices of long term polyimid brain implants. Biomedizinische Technik, 2012, 57, .	0.9	0
123	Biosignal analysis implemented on state of the art smartphone dual-core processors. Biomedizinische Technik, 2012, 57, .	0.9	0
124	A Remote Controlled Food Dispenser for Animal Research. Biomedizinische Technik, 2012, 57, .	0.9	0
125	A Study of Conditioned Flexible Electrodes In Vivo and In Vitro. Biomedizinische Technik, 2012, 57, .	0.9	0
126	Preliminary design of a tendon-based anthropomorphic robotic hand. Biomedizinische Technik, 2012, 57, .	0.9	0

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127	A unifying perspective on neuromodulatory effects on signal transmission and plasticity in D1-dominant MSN neurons. BMC Neuroscience, 2013, 14, .	0.8	0
128	Prescreening seizure-like events in a rat model of epilepsy A: A 2D video processing method. , 2013, , .		0
129	Prescreening seizure-like events in a rat model of epilepsy B: A 3D online video processing method. , 2013, , .		0
130	The influence of stimulation parameters on the relative phase clustering index. , 2015, , .		0
131	Novel near infrared sensors for hybrid BCI applications. Proceedings of SPIE, 2015, , .	0.8	0
132	Dual Layered Models of Light Scattering in the Near Infrared B: Experimental Results with a Phantom *. , 2019, 2019, 4775-4778.		0
133	Editorial: Bridging the Gap in Neuroelectronic Interfaces. Frontiers in Neuroscience, 2020, 14, 457.	1.4	0
134	Long-term in vivo monitoring of gliotic sheathing of ultrathin entropic coated brain microprobes with fiber-based optical coherence tomography. Journal of Neural Engineering, 2021, 18, 045002.	1.8	0
135	Web Service-based presentation of vital signs on mobile devices. Biomedizinische Technik, 2012, 57, .	0.9	0
136	Setup of a white light selective plane microscope to investigate microprobe insertion in a brain model. IFMBE Proceedings, 2018, , 547-550.	0.2	0
137	Neurophotonic Scanning System â€œ Towards Automatic Infrared Neurostimulation. Current Directions in Biomedical Engineering, 2020, 6, 272-275.	0.2	0