Markus Morawski

List of Publications by Year
in descending order

96 papers	4,379 citations	109321 35 h-index	123424 61 g-index
100 all docs	100 docs citations	100 times ranked	5955 citing authors

#	Article	IF	Citations
1	Finding the best clearing approach - Towards 3D wide-scale multimodal imaging of aged human brain tissue. NeuroImage, 2022, 247, 118832.	4.2	7
2	Claudin-10a Deficiency Shifts Proximal Tubular Cl- Permeability to Cation Selectivity via Claudin-2 Redistribution. Journal of the American Society of Nephrology: JASN, 2022, 33, 699-717.	6.1	20
3	High Iron and Iron Household Protein Contents in Perineuronal Net-Ensheathed Neurons Ensure Energy Metabolism with Safe Iron Handling. International Journal of Molecular Sciences, 2022, 23, 1634.	4.1	2
4	Towards a representative reference for MRI-based human axon radius assessment using light microscopy. NeuroImage, 2022, 249, 118906.	4.2	2
5	Tau Protein Modulates Perineuronal Extracellular Matrix Expression in the TauP301L-acan Mouse Model. Biomolecules, 2022, 12, 505.	4.0	1
6	Aggrecan modulates the expression and phosphorylation of tau in a novel bigenic TauP301L â€• Acan mouse model. European Journal of Neuroscience, 2021, 53, 3889-3904.	2.6	5
7	Cell specific quantitative iron mapping on brain slices by immuno-ÂµPIXE in healthy elderly and Parkinsonâ€™s disease. Acta Neuropathologica Communications, 2021, 9, 47.	5.2	26
8	miR24â€“3p activity after delivery into pancreatic carcinoma cell lines exerts profound tumor-inhibitory effects through distinct pathways of apoptosis and autophagy induction. Cancer Letters, 2021, 503, 174-184.	7.2	10
9	Developmental Differences in Neocortex Neurogenesis and Maturation Between the Altricial Dwarf Rabbit and Precocial Guinea Pig. Frontiers in Neuroanatomy, 2021, 15, 678385.	1.7	8
10	Brain extracellular matrix: An upcoming target in neurological and psychiatric disorders. European Journal of Neuroscience, 2021, 53, 3807-3810.	2.6	9
11	Measuring the iron content of dopaminergic neurons in substantia nigra with MRI relaxometry. NeuroImage, 2021, 239, 118255.	4.2	28
12	Mapping the human lateral geniculate nucleus and its cytoarchitectonic subdivisions using quantitative MRI. NeuroImage, 2021, 244, 118559.	4.2	10
13	Adhesion GPCR GPR56 Expression Profiling in Human Tissues. Cells, 2021, 10, 3557.	4.1	6
14	Distribution and classification of the extracellular matrix in the olfactory bulb. Brain Structure and Function, 2020, 225, 321-344.	2.3	12
15	The protein tyrosine phosphatase RPTPÎ¶/phosphacan is critical for perineuronal net structure. Journal of Biological Chemistry, 2020, 295, 955-968.	3.4	11
16	Superficial white matter imaging: Contrast mechanisms and whole-brain in vivo mapping. Science Advances, 2020, 6, .	10.3	65
17	Neurocan Contributes to Perineuronal Net Development. Neuroscience, 2020, 442, 69-86.	2.3	23
18	Amyloid-Beta Peptides Trigger Aggregation of Alpha-Synuclein In Vitro. Molecules, 2020, 25, 580.	3.8	53

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19	The protein tyrosine phosphatase RPTPÎ¶/phosphacan is critical for perineuronal net structure. Journal of Biological Chemistry, 2020, 295, 955-968.	3.4	14
20	Biophysically motivated efficient estimation of the spatially isotropic component from a single gradientâ€recalled echo measurement. Magnetic Resonance in Medicine, 2019, 82, 1804-1811.	3.0	10
21	Locus coeruleus imaging as a biomarker for noradrenergic dysfunction in neurodegenerative diseases. Brain, 2019, 142, 2558-2571.	7.6	219
22	Iron concentrations in neurons and glial cells with estimates on ferritin concentrations. BMC Neuroscience, 2019, 20, 25.	1.9	108
23	Influence of the extracellular matrix on water mobility in subcortical gray matter. Magnetic Resonance in Medicine, 2019, 81, 1265-1279.	3.0	6
24	Developing 3D microscopy with CLARITY on human brain tissue: Towards a tool for informing and validating MRI-based histology. NeuroImage, 2018, 182, 417-428.	4.2	81
25	Synaptic coupling of inner ear sensory cells is controlled by brevican-based extracellular matrix baskets resembling perineuronal nets. BMC Biology, 2018, 16, 99.	3.8	23
26	Carnosine selectively inhibits migration of IDH-wildtype glioblastoma cells in a co-culture model with fibroblasts. Cancer Cell International, 2018, 18, 111.	4.1	10
27	Peri-arterial Autonomic Innervation of the Human Ear. Scientific Reports, 2018, 8, 11469.	3.3	10
28	Neuroanatomical characterization of perineuronal net components in the human cochlear nucleus and superior olivary complex. Hearing Research, 2018, 367, 32-47.	2.0	4
29	Combining Deep Learning and Active Contours Opens The Way to Robust, Automated Analysis of Brain Cytoarchitectonics. Lecture Notes in Computer Science, 2018, , 179-187.	1.3	4
30	The Cytotoxic Effects of Camptothecin and Mastoparan on the Unicellular Green Alga Chlamydomonas reinhardtii. Journal of Eukaryotic Microbiology, 2017, 64, 806-819.	1.7	4
31	A Cytomic Approach Towards Genomic Individuality of Neurons. Neuromethods, 2017, , 81-106.	0.3	1
32	Inhomogeneous distribution of <scp>A</scp>lzheimer pathology along the isocortical relief. Are cortical convolutions an <scp>A</scp>chilles heel of evolution?. Brain Pathology, 2017, 27, 603-611.	4.1	21
33	Subthalamic nucleus volumes are highly consistent but decrease age-dependently-a combined magnetic resonance imaging and stereology approach in humans. Human Brain Mapping, 2017, 38, 909-922.	3.6	31
34	Reorganization of Synaptic Connections and Perineuronal Nets in the Deep Cerebellar Nuclei ofPurkinje Cell DegenerationMutant Mice. Neural Plasticity, 2016, 2016, 1-17.	2.2	18
35	Deficiency of prolyl oligopeptidase in mice disturbs synaptic plasticity and reduces anxiety-like behaviour, body weight, and brain volume. European Neuropsychopharmacology, 2016, 26, 1048-1061.	0.7	25
36	Early pathologic amyloid induces hypersynchrony of BOLD restingâ€state networks in transgenic mice and provides an early therapeutic window before amyloid plaque deposition. Alzheimer's and Dementia, 2016, 12, 964-976.	0.8	76

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37	Prolyl endopeptidase is involved in the degradation of neural cell adhesion molecules in vitro. Journal of Cell Science, 2016, 129, 3792-3802.	2.0	10
38	Differential transgene expression patterns in Alzheimer mouse models revealed by novel human amyloid precursor proteinâ€specific antibodies. Aging Cell, 2016, 15, 953-963.	6.7	22
39	Protective Properties of Neural Extracellular Matrix. Molecular Neurobiology, 2016, 53, 73-82.	4.0	82
40	The neuronal extracellular matrix restricts distribution and internalization of aggregated Tau-protein. Neuroscience, 2016, 313, 225-235.	2.3	33
41	Effect of brevican deficiency on neuroplasticity mediating molecules. SpringerPlus, 2015, 4, .	1.2	0
42	Ion exchanger in the brain: Quantitative analysis of perineuronally fixed anionic binding sites suggests diffusion barriers with ion sorting properties. Scientific Reports, 2015, 5, 16471.	3.3	85
43	The extracellular matrix molecule brevican is an integral component of the machinery mediating fast synaptic transmission at the calyx of Held. Journal of Physiology, 2015, 593, 4341-4360.	2.9	60
44	Perineuronal nets in the auditory system. Hearing Research, 2015, 329, 21-32.	2.0	44
45	Isoglutaminyl cyclase contributes to CCL2-driven neuroinflammation in Alzheimerâ€™s disease. Acta Neuropathologica, 2015, 129, 565-583.	7.7	38
46	Early neurone loss in Alzheimerâ€™s disease: cortical or subcortical?. Acta Neuropathologica Communications, 2015, 3, 10.	5.2	150
47	L-type Calcium Channel Cav1.2 Is Required for Maintenance of Auditory Brainstem Nuclei. Journal of Biological Chemistry, 2015, 290, 23692-23710.	3.4	17
48	ECM in brain aging and dementia. Progress in Brain Research, 2014, 214, 207-227.	1.4	69
49	Aggrecan, link protein and tenascin-R are essential components of the perineuronal net to protect neurons against iron-induced oxidative stress. Cell Death and Disease, 2014, 5, e1119-e1119.	6.3	129
50	Tenascin-R promotes assembly of the extracellular matrix of perineuronal nets via clustering of aggrecan. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20140046.	4.0	80
51	Myelin and iron concentration in the human brain: A quantitative study of MRI contrast. NeuroImage, 2014, 93, 95-106.	4.2	528
52	Tissue transglutaminase in Alzheimer's disease â€“ facts and fiction: a reply to â€œTissue transglutaminase is a biochemical marker for Alzheimer's diseaseâ€. Neurobiology of Aging, 2014, 35, e5-e9.	3.1	50
53	Changes of several brain receptor complexes in the cerebral cortex of patients with Alzheimer disease: probable new potential pharmaceutical targets. Amino Acids, 2014, 46, 223-233.	2.7	5
54	Mouse strain and brain regionâ€specific expression of the glutaminyl cyclases QC and isoQC. International Journal of Developmental Neuroscience, 2014, 36, 64-73.	1.6	13

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55	Glutaminyl Cyclase in Human Cortex: Correlation with (pGlu)-Amyloid-Î² Load and Cognitive Decline in Alzheimer's Disease. Journal of Alzheimer's Disease, 2014, 39, 385-400.	2.6	90
56	Tissue transglutaminase is not a biochemical marker for Alzheimer's disease. Neurobiology of Aging, 2013, 34, 2495-2498.	3.1	15
57	Neurochemical mapping of the human hippocampus reveals perisynaptic matrix around functional synapses in Alzheimerâ€™s disease. Acta Neuropathologica, 2013, 125, 215-229.	7.7	76
58	Cellular and ultra structural evidence for cytoskeletal localization of prolyl endopeptidase-like protein in neurons. Neuroscience, 2013, 242, 128-139.	2.3	13
59	Perineuronal and perisynaptic extracellular matrix in the human spinal cord. Neuroscience, 2013, 238, 168-184.	2.3	40
60	Unique features of extracellular matrix in the mouse medial nucleus of trapezoid body â€“ Implications for physiological functions. Neuroscience, 2013, 228, 215-234.	2.3	51
61	Changes in neuronal DNA content variation in the human brain during aging. Aging Cell, 2012, 11, 628-633.	6.7	62
62	Aggrecan: Beyond cartilage and into the brain. International Journal of Biochemistry and Cell Biology, 2012, 44, 690-693.	2.8	113
63	Involvement of Perineuronal and Perisynaptic Extracellular Matrix in Alzheimer's Disease Neuropathology. Brain Pathology, 2012, 22, 547-561.	4.1	124
64	Perisynaptic aggrecanâ€based extracellular matrix coats in the human lateral geniculate body devoid of perineuronal nets. Journal of Neuroscience Research, 2012, 90, 376-387.	2.9	25
65	Neuroprotection against iron-induced cell death by perineuronal nets - an in vivo analysis of oxidative stress. American Journal of Neurodegenerative Disease, 2012, 1, 122-9.	0.1	51
66	The human ubiquitin C promoter drives selective expression in principal neurons in the brain of a transgenic mouse line. Neurochemistry International, 2011, 59, 976-980.	3.8	5
67	Role of Prolyl Endopeptidase in Intracellular Transport and Protein Secretion. CNS and Neurological Disorders - Drug Targets, 2011, 10, 327-332.	1.4	12
68	Prolyl Oligopeptidase: A Rising Star on the Stage of Neuroinflammation Research. CNS and Neurological Disorders - Drug Targets, 2011, 10, 340-348.	1.4	38
69	Glutaminyl cyclase contributes to the formation of focal and diffuse pyroglutamate (pGlu)-AÎ² deposits in hippocampus via distinct cellular mechanisms. Acta Neuropathologica, 2011, 121, 705-719.	7.7	52
70	On the quantification of intracellular proteins in multifluorescenceâ€labeled rat brain slices using slideâ€based cytometry. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2011, 79A, 485-491.	1.5	7
71	Distinct glutaminyl cyclase expression in Edingerâ€“Westphal nucleus, locus coeruleus and nucleus basalis Meynert contributes to pGlu-AÎ² pathology in Alzheimerâ€™s disease. Acta Neuropathologica, 2010, 120, 195-207.	7.7	29
72	Distribution and classification of aggrecanâ€based extracellular matrix in the thalamus of the rat. Journal of Neuroscience Research, 2010, 88, 3257-3266.	2.9	17

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73	Trace element mapping in Parkinsonian brain by quantitative ion beam microscopy. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 2156-2159.	1.4	12
74	GAP43 shows partial co-localisation but no strong physical interaction with prolyl oligopeptidase. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 2162-2176.	2.3	20
75	[P1.69]: Subcellular localization of PREP and PREPL in neuronal cells suggests functions in intracellular transport and protein secretion. International Journal of Developmental Neuroscience, 2010, 28, 678-678.	1.6	0
76	Chondroitin sulphate proteoglycan-based perineuronal net establishment is largely activity-independent in chick visual system. Journal of Chemical Neuroanatomy, 2010, 40, 243-247.	2.1	15
77	Perineuronal nets are largely unaffected in Alzheimer model Tg2576 mice. Neurobiology of Aging, 2010, 31, 1254-1256.	3.1	38
78	Aggrecan-based extracellular matrix shows unique cortical features and conserved subcortical principles of mammalian brain organization in the Madagascan lesser hedgehog tenrec (Echinops) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	2.3	24
79	Neurons associated with aggrecan-based perineuronal nets are protected against tau pathology in subcortical regions in Alzheimer's disease. Neuroscience, 2010, 169, 1347-1363.	2.3	132
80	Perineuronal net formation and structure in aggrecan knockout mice. Neuroscience, 2010, 170, 1314-1327.	2.3	175
81	Neuronal Aneuploidy in Health and Disease:A Cytomic Approach to Understand the Molecular Individuality of Neurons. International Journal of Molecular Sciences, 2009, 10, 1609-1627.	4.1	41
82	Chondroitin sulfate proteoglycan-based extracellular matrix in chicken (Gallus domesticus) brain. Brain Research, 2009, 1275, 10-23.	2.2	25
83	Aggrecan-based extracellular matrix is an integral part of the human basal ganglia circuit. Neuroscience, 2008, 151, 489-504.	2.3	83
84	Aneuploidy and DNA Replication in the Normal Human Brain and Alzheimer's Disease. Journal of Neuroscience, 2007, 27, 6859-6867.	3.6	236
85	Intracellular iron concentration of neurons with and without perineuronal nets. Nuclear Instruments & Methods in Physics Research B, 2007, 260, 153-158.	1.4	38
86	High resolution quantitative element mapping of neuromelanin-containing neurons. Nuclear Instruments & Methods in Physics Research B, 2007, 260, 227-230.	1.4	12
87	Organization of brain extracellular matrix in the Chilean fat-tailed mouse opossum Thylamys elegans (Waterhouse, 1839). Journal of Chemical Neuroanatomy, 2006, 32, 143-158.	2.1	7
88	Cellular distribution and localisation of iron in adult rat brain (substantia nigra). Nuclear Instruments & Methods in Physics Research B, 2006, 249, 688-691.	1.4	7
89	Quantitative trace element analysis with sub-micron lateral resolution. Nuclear Instruments & Methods in Physics Research B, 2006, 249, 734-737.	1.4	15
90	Morphological and elemental characterisation with the high-energy ion-nanoprobe LIPSION. Applied Surface Science, 2005, 252, 43-48.	6.1	8

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91	Determination of trace elements in the human substantia nigra. Nuclear Instruments & Methods in Physics Research B, 2005, 231, 224-228.	1.4	31
92	Antibody meets the microbeam â€“ or how to find neurofibrillary tangles. Nuclear Instruments & Methods in Physics Research B, 2005, 231, 229-233.	1.4	11
93	The Binding of Iron to Perineuronal Nets: A Combined Nuclear Microscopy and MÃ¶ssbauer Study. Hyperfine Interactions, 2005, 159, 285-291.	0.5	11
94	Perineuronal nets potentially protect against oxidative stress. Experimental Neurology, 2004, 188, 309-315.	4.1	199
95	Quantitative microanalysis of perineuronal nets in brain tissue. Nuclear Instruments & Methods in Physics Research B, 2003, 210, 395-400.	1.4	31
96	Perineuronal Nets in the Superior Olivary Complex. , 0, , 421-444.		3