Mark Hackett

List of Publications by Year
in descending order

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Version: 2024-02-01

79 papers	1,989 citations	293460 24 h-index	312153 41 g-index
82 all docs	82 docs citations	82 times ranked	2784 citing authors

#	Article	IF	Citations
1	The transfer and persistence of metals in latent fingermarks. Analyst, The, 2022, 147, 387-397.	1.7	5
2	A review of the â€œmetallomeâ€•within neurons and glia, as revealed by elemental mapping of brain tissue. BBA Advances, 2022, 2, 100038.	0.7	3
3	Monitoring the chemical changes in fingermark residue over time using synchrotron infrared spectroscopy. Analyst, The, 2022, 147, 799-810.	1.7	7
4	Multimodal imaging of hemorrhagic transformation biomarkers in an ischemic stroke model.. Metallomics, 2022, 14, .	1.0	6
5	X-ray fluorescence microscopy methods for biological tissues. Metallomics, 2022, 14, .	1.0	19
6	Chronic high fat feeding paradoxically attenuates cerebral capillary dysfunction and neurovascular inflammation in Senescence-Accelerated-Murine-Prone Strain 8 mice. Nutritional Neuroscience, 2021, 24, 635-643.	1.5	4
7	Synchrotron X-ray fluorescence microscopy-enabled elemental mapping illuminates the â€˜battle for nutrientsâ€™ between plant and pathogen. Journal of Experimental Botany, 2021, 72, 2757-2768.	2.4	9
8	Tracking biochemical changes induced by iron loading in AML12 cells with synchrotron live cell, time-lapse infrared microscopy. Biochemical Journal, 2021, 478, 1227-1239.	1.7	4
9	Technological strategies to improve gelation properties of legume proteins with the focus on lupin. Innovative Food Science and Emerging Technologies, 2021, 68, 102634.	2.7	24
10	Bloodâ€“brain barrier disruption and ventricular enlargement are the earliest neuropathological changes in rats with repeated sub-concussive impacts over 2Âweeks. Scientific Reports, 2021, 11, 9261.	1.6	10
11	Structural Changes in Insulin at a Soft Electrochemical Interface. Analytical Chemistry, 2021, 93, 9094-9102.	3.2	2
12	Accumulation and potential for transport of microplastics in stormwater drains into marine environments, Perth region, Western Australia. Marine Pollution Bulletin, 2021, 168, 112362.	2.3	34
13	Physicochemical characterisation of kafirins extracted from sorghum grain and dried distillers grain with solubles related to their biomaterial functionality. Scientific Reports, 2021, 11, 15204.	1.6	5
14	â€œWax On, Wax Offâ€• In Vivo Imaging of Plant Physiology and Disease with Fourier Transform Infrared Reflectance Microspectroscopy. Advanced Science, 2021, 8, e2101902.	5.6	5
15	Synthesis of human amyloid restricted to liver results in an Alzheimer diseaseâ€“like neurodegenerative phenotype. PLoS Biology, 2021, 19, e3001358.	2.6	42
16	Mapping sub-cellular protein aggregates and lipid inclusions using synchrotron ATR-FTIR microspectroscopy. Analyst, The, 2021, 146, 3516-3525.	1.7	6
17	â€œA spectroscopic picture paints 1000 wordsâ€•mapping iron speciation in brain tissue with â€œfull spectrum per pixelâ€•X-ray absorption near-edge structure spectroscopy. Clinical Spectroscopy, 2021, 3, 100017.	0.6	4
18	Genetic, environmental and biomarker considerations delineating the regulatory effects of vitamin D on central nervous system function. British Journal of Nutrition, 2020, 123, 41-58.	1.2	3

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19	Characterization of Ionic and Lipid Gradients within Corpus Callosum White Matter after Diffuse Traumatic Brain Injury in the Rat. ACS Chemical Neuroscience, 2020, 11, 248-257.	1.7	6
20	Tracking elemental changes in an ischemic stroke model with X-ray fluorescence imaging. Scientific Reports, 2020, 10, 17868.	1.6	12
21	Investigation of the effect of taurine supplementation on muscle taurine content in the mdx mouse model of Duchenne muscular dystrophy using chemically specific synchrotron imaging. Analyst, The, 2020, 145, 7242-7251.	1.7	7
22	Sample preparation with sucrose cryoprotection dramatically alters Zn distribution in the rodent hippocampus, as revealed by elemental mapping. Journal of Analytical Atomic Spectrometry, 2020, 35, 2498-2508.	1.6	19
23	Repeated Long-Term Sub-concussion Impacts Induce Motor Dysfunction in Rats: A Potential Rodent Model. Frontiers in Neurology, 2020, 11, 491.	1.1	17
24	Imaging lipophilic regions in rodent brain tissue with halogenated BODIPY probes. Analyst, The, 2020, 145, 3809-3813.	1.7	3
25	Revealing differences in the chemical form of zinc in brain tissue using K-edge X-ray absorption near-edge structure spectroscopy. Metallomics, 2020, 12, 2134-2144.	1.0	8
26	Revealing the Elemental Distribution within Latent Fingermarks Using Synchrotron Sourced X-ray Fluorescence Microscopy. Analytical Chemistry, 2019, 91, 10622-10630.	3.2	22
27	Elemental characterisation of the pyramidal neuron layer within the rat and mouse hippocampus. Metallomics, 2019, 11, 151-165.	1.0	19
28	Visualizing sulfur with X-rays: From molecules to tissues. Phosphorus, Sulfur and Silicon and the Related Elements, 2019, 194, 618-623.	0.8	3
29	Complementary Approaches to Imaging Subcellular Lipid Architectures in Live Bacteria Using Phosphorescent Iridium Complexes and Raman Spectroscopy. Chemistry - A European Journal, 2019, 25, 10566-10570.	1.7	17
30	Tumour suppression by targeted intravenous non-viral CRISPRa using dendritic polymers. Chemical Science, 2019, 10, 7718-7727.	3.7	37
31	Synchrotron macro ATR-FTIR microspectroscopy for high-resolution chemical mapping of single cells. Analyst, The, 2019, 144, 3226-3238.	1.7	74
32	Multimodal Imaging Analyses of Brain Hippocampal Formation Reveal Reduced Cu and Lipid Content and Increased Lactate Content in Non-Insulin-Dependent Diabetic Mice. ACS Chemical Neuroscience, 2019, 10, 2533-2540.	1.7	10
33	Secondary Structural Changes in Proteins as a Result of Electroadsorption at Aqueousâ€“Organogel Interfaces. Langmuir, 2019, 35, 5821-5829.	1.6	9
34	A Review of ex vivo Elemental Mapping Methods to Directly Image Changes in the Homeostasis of Diffusible Ions (Na+, K+, Mg2 +, Ca2 +, Clâ€“) Within Brain Tissue. Frontiers in Neuroscience, 2019, 13, 1415.	1.4	11
35	Protein-Energy Malnutrition Exacerbates Stroke-Induced Forelimb Abnormalities and Dampens Neuroinflammation. Translational Stroke Research, 2018, 9, 622-630.	2.3	12
36	Revealing the Penumbra through Imaging Elemental Markers of Cellular Metabolism in an Ischemic Stroke Model. ACS Chemical Neuroscience, 2018, 9, 886-893.	1.7	19

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37	Longitudinal Performance of Senescence Accelerated Mouse Prone-Strain 8 (SAMP8) Mice in an Olfactory-Visual Water Maze Challenge. Frontiers in Behavioral Neuroscience, 2018, 12, 174.	1.0	5
38	A comparison of parametric and integrative approaches for X-ray fluorescence analysis appliedÂto a Stroke model. Journal of Synchrotron Radiation, 2018, 25, 1780-1789.	1.0	11
39	Biospectroscopic Imaging Provides Evidence of Hippocampal Zn Deficiency and Decreased Lipid Unsaturation in an Accelerated Aging Mouse Model. ACS Chemical Neuroscience, 2018, 9, 2774-2785.	1.7	18
40	Focal plane array IR imaging at the Australian Synchrotron. Infrared Physics and Technology, 2018, 94, 85-90.	1.3	11
41	Electrochemistry of proteins at the interface between two immiscible electrolyte solutions. Current Opinion in Electrochemistry, 2018, 12, 27-32.	2.5	26
42	Better together: Potential of co-culture microorganisms to enhance bioleaching of rare earth elements from monazite. Bioresource Technology Reports, 2018, 3, 109-118.	1.5	35
43	Direct label-free imaging of brain tissue using synchrotron light: a review of new spectroscopic tools for the modern neuroscientist. Analyst, The, 2018, 143, 3761-3774.	1.7	13
44	Revealing the spatial distribution of chemical species within latent fingermarks using vibrational spectroscopy. Analyst, The, 2018, 143, 4027-4039.	1.7	38
45	Parallel changes in cortical neuron biochemistry and motor function in protein-energy malnourished adult rats. NeuroImage, 2017, 149, 275-284.	2.1	6
46	Rehabilitation Augments Hematoma Clearance and Attenuates Oxidative Injury and Ion Dyshomeostasis After Brain Hemorrhage. Stroke, 2017, 48, 195-203.	1.0	34
47	Biological iron-sulfur storage in a thioferrate-protein nanoparticle. Nature Communications, 2017, 8, 16110.	5.8	20
48	Photochemically Generated Thiyl Free Radicals Observed by X-ray Absorption Spectroscopy. Journal of the American Chemical Society, 2017, 139, 11519-11526.	6.6	23
49	A Multimodal Spectroscopic Imaging Method To Characterize the Metal and Macromolecular Content of Proteinaceous Aggregates (â€œAmyloid Plaquesâ€). Biochemistry, 2017, 56, 4107-4116.	1.2	55
50	FTIR studies of the similarities between pathology induced protein aggregation in vivo and chemically induced protein aggregation ex vivo. Vibrational Spectroscopy, 2017, 91, 68-76.	1.2	24
51	Medium-energy microprobe station at the SXRMB of the CLS. Journal of Synchrotron Radiation, 2017, 24, 333-337.	1.0	23
52	Multi-modal spectroscopic imaging with synchrotron light to study mechanisms of brain disease. Proceedings of SPIE, 2017, , .	0.8	0
53	Antioxidants and Dementia Risk: Consideration through a Cerebrovascular Perspective. Nutrients, 2016, 8, 828.	1.7	22
54	Mapping Alterations to the Endogenous Elemental Distribution within the Lateral Ventricles and Choroid Plexus in Brain Disorders Using X-Ray Fluorescence Imaging. PLoS ONE, 2016, 11, e0158152.	1.1	18

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55	Concurrent Glycogen and Lactate Imaging with FTIR Spectroscopy To Spatially Localize Metabolic Parameters of the Glial Response Following Brain Ischemia. Analytical Chemistry, 2016, 88, 10949-10956.	3.2	31
56	Imaging Taurine in the Central Nervous System Using Chemically Specific X-ray Fluorescence Imaging at the Sulfur K-Edge. Analytical Chemistry, 2016, 88, 10916-10924.	3.2	19
57	Chemical Biology in the Embryo: In Situ Imaging of Sulfur Biochemistry in Normal and Proteoglycan-Deficient Cartilage Matrix. Biochemistry, 2016, 55, 2441-2451.	1.2	13
58	Distribution of selenium in zebrafish larvae after exposure to organic and inorganic selenium forms. Metallomics, 2016, 8, 305-312.	1.0	36
59	A novel multi-modal platform to image molecular and elemental alterations in ischemic stroke. Neurobiology of Disease, 2016, 91, 132-142.	2.1	40
60	Novel bio-spectroscopic imaging reveals disturbed protein homeostasis and thiol redox with protein aggregation prior to hippocampal CA1 pyramidal neuron death induced by global brain ischemia in the rat. Free Radical Biology and Medicine, 2015, 89, 806-818.	1.3	24
61	Mechanisms of murine cerebral malaria: Multimodal imaging of altered cerebral metabolism and protein oxidation at hemorrhage sites. Science Advances, 2015, 1, e1500911.	4.7	25
62	In Situ Biospectroscopic Investigation of Rapid Ischemic and Postmortem Induced Biochemical Alterations in the Rat Brain. ACS Chemical Neuroscience, 2015, 6, 226-238.	1.7	41
63	Interaction of mercury and selenium in the larval stage zebrafish vertebrate model. Metallomics, 2015, 7, 1247-1255.	1.0	34
64	Development of single-beam wide-field infrared imaging to study sub-cellular neuron biochemistry. Vibrational Spectroscopy, 2015, 77, 51-59.	1.2	23
65	A New Method To Image Heme-Fe, Total Fe, and Aggregated Protein Levels after Intracerebral Hemorrhage. ACS Chemical Neuroscience, 2015, 6, 761-770.	1.7	33
66	Laminar-specific distribution of zinc: Evidence for presence of layer IV in forelimb motor cortex in the rat. NeuroImage, 2014, 103, 502-510.	2.1	14
67	Long-Range Chemical Sensitivity in the Sulfur K-Edge X-ray Absorption Spectra of Substituted Thiophenes. Journal of Physical Chemistry A, 2014, 118, 7796-7802.	1.1	31
68	Elemental and Chemically Specific X-ray Fluorescence Imaging of Biological Systems. Chemical Reviews, 2014, 114, 8499-8541.	23.0	234
69	Light and heavy ion beam analysis of thin biological sections. Nuclear Instruments & Methods in Physics Research B, 2013, 306, 129-133.	0.6	12
70	Subcellular Biochemical Investigation of Purkinje Neurons Using Synchrotron Radiation Fourier Transform Infrared Spectroscopic Imaging with a Focal Plane Array Detector. ACS Chemical Neuroscience, 2013, 4, 1071-1080.	1.7	35
71	FTIR Imaging of Brain Tissue Reveals Crystalline Creatine Deposits Are an ex Vivo Marker of Localized Ischemia during Murine Cerebral Malaria: General Implications for Disease Neurochemistry. ACS Chemical Neuroscience, 2012, 3, 1017-1024.	1.7	24
72	X-ray Absorption Spectroscopy at the Sulfur K-Edge: A New Tool to Investigate the Biochemical Mechanisms of Neurodegeneration. ACS Chemical Neuroscience, 2012, 3, 178-185.	1.7	61

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73	Prolonged Therapeutic Hypothermia does not Adversely Impact Neuroplasticity after Global Ischemia in Rats. Journal of Cerebral Blood Flow and Metabolism, 2012, 32, 1525-1534.	2.4	39
74	X-ray-induced photo-chemistry and X-ray absorptionÂspectroscopy of biological samples. Journal of Synchrotron Radiation, 2012, 19, 875-886.	1.0	141
75	Chemical alterations to murine brain tissue induced by formalin fixation: implications for biospectroscopic imaging and mapping studies of disease pathogenesis. Analyst, The, 2011, 136, 2941.	1.7	163
76	Biomedical applications of X-ray absorption and vibrational spectroscopic microscopies in obtaining structural information from complex systems. Radiation Physics and Chemistry, 2010, 79, 176-184.	1.4	34
77	Wellâ€defined Tetrazoleâ€functional Copolymers as Macromolecular Ligands for Luminescent Ir(III) and Re(I) Metal Species: Synthesis, Photophysical Properties and Application in Bioimaging. Macromolecular Chemistry and Physics, 0, , 2200021.	1.1	0
78	Leaving a mark on forensic science: how spectroscopic techniques have revealed new insights in fingerprint chemistry. Spectroscopy Europe, 0, , 22.	0.0	1
79	Mapping metals in brain tissue with X-ray fluorescence and X-ray absorption spectroscopy at synchrotron light sources. Spectroscopy Europe, 0, , .	0.0	0