Michael A Menze

List of Publications by Year
in descending order

59 papers	1,816 citations	257450 24 h-index	289244 40 g-index
61 all docs	61 docs citations	61 times ranked	1766 citing authors

#	Article	IF	Citations
1	LEA Proteins During Water Stress: Not Just for Plants Anymore. Annual Review of Physiology, 2011, 73, 115-134.	13.1	359
2	Late embryogenesis abundant proteins protect human hepatoma cells during acute desiccation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20859-20864.	7.1	92
3	Life without water: expression of plant LEA genes by an anhydrobiotic arthropod. Journal of Experimental Zoology, 2007, 307A, 62-66.	1.2	84
4	Metabolic restructuring during energy-limited states: Insights from Artemia franciscana embryos and other animals. Journal of Insect Physiology, 2011, 57, 584-594.	2.0	73
5	Mechanisms of apoptosis in Crustacea: what conditions induce versus suppress cell death?. Apoptosis: an International Journal on Programmed Cell Death, 2010, 15, 293-312.	4.9	70
6	Mitochondria in energy-limited states: mechanisms that blunt the signaling of cell death. Journal of Experimental Biology, 2008, 211, 1829-1840.	1.7	68
7	Trehalose uptake through P2X7 purinergic channels provides dehydration protection. Cryobiology, 2006, 52, 114-127.	0.7	65
8	Occurrence of Mitochondria-targeted Late Embryogenesis Abundant (LEA) Gene in Animals Increases Organelle Resistance to Water Stress. Journal of Biological Chemistry, 2009, 284, 10714-10719.	3.4	64
9	Mitochondrial permeability transition in the crustacean Artemia franciscana: absence of a calcium-regulated pore in the face of profound calcium storage. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2005, 289, R68-R76.	1.8	61
10	Liquid-liquid phase separation promotes animal desiccation tolerance. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27676-27684.	7.1	50
11	Cryopreservation of hepatocyte (HepG2) cell monolayers: Impact of trehalose. Cryobiology, 2014, 69, 281-290.	0.7	43
12	Improved tolerance to salt and water stress in Drosophila melanogaster cells conferred by late embryogenesis abundant protein. Journal of Insect Physiology, 2013, 59, 377-386.	2.0	37
13	Depression of cell metabolism and proliferation by membrane-permeable and -impermeable modulators: role for AMP-to-ATP ratio. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2005, 288, R501-R510.	1.8	36
14	Group 3 Late Embryogenesis Abundant Proteins from Embryos of Artemia franciscana: Structural Properties and Protective Abilities during Desiccation. Physiological and Biochemical Zoology, 2014, 87, 640-651.	1.5	35
15	Trehalose transporter from African chironomid larvae improves desiccation tolerance of Chinese hamster ovary cells. Cryobiology, 2012, 64, 91-96.	0.7	34
16	Molecular approaches for improving desiccation tolerance: insights from the brine shrimp Artemia franciscana. Planta, 2015, 242, 379-388.	3.2	34
17	Role of Intrinsic Disorder in Animal Desiccation Tolerance. Proteomics, 2018, 18, e1800067.	2.2	34
18	Protective effects of osmolytes in cryopreserving adherent neuroblastoma (Neuro-2a) cells. Cryobiology, 2015, 71, 472-480.	0.7	33

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19	Effect of trehalose as an additive to dimethyl sulfoxide solutions on ice formation, cellular viability, and metabolism. Cryobiology, 2017, 75, 134-143.	0.7	33
20	A Spin-Drying Technique for Lyopreservation of Mammalian Cells. Annals of Biomedical Engineering, 2011, 39, 1582-1591.	2.5	32
21	Trehalose loading through the mitochondrial permeability transition pore enhances desiccation tolerance in rat liver mitochondria. Biochimica Et Biophysica Acta - Biomembranes, 2005, 1717, 21-26.	2.6	31
22	Cryopreservation of Human Hematopoietic Stem and Progenitor Cells Loaded with Trehalose: Transient Permeabilization via the Adenosine Triphosphate-Dependent P2Z Receptor Channel. Cell Preservation Technology, 2005, 3, 212-222.	0.6	30
23	Metabolic preconditioning of cells with AICAR-riboside: Improved cryopreservation and cell-type specific impacts on energetics and proliferation. Cryobiology, 2010, 61, 79-88.	0.7	28
24	Allosteric Models for Multimeric Proteins:â€‰ Oxygen-Linked Effector Binding in Hemocyanin. Biochemistry, 2005, 44, 10328-10338.	2.5	25
25	LEAfing through literature: late embryogenesis abundant proteins coming of ageâ€”achievements and perspectives. Journal of Experimental Botany, 2022, 73, 6525-6546.	4.8	24
26	Potential functions of LEA proteins from the brine shrimpArtemia franciscanaâ€“ anhydrobiosis meets bioinformatics. Journal of Biomolecular Structure and Dynamics, 2018, 36, 3291-3309.	3.5	23
27	Longâ€Term Survival of Anoxia Despite Rapid ATP Decline in Embryos of the Annual Killifish Austrofundulus limnaeus. Journal of Experimental Zoology, 2012, 317, 524-532.	1.2	21
28	Crystal structure of the mitochondrial protein mitoNEET bound to a benze-sulfonide ligand. Communications Chemistry, 2019, 2, .	4.5	21
29	Identification of Disulfide Bond Formation between MitoNEET and Glutamate Dehydrogenase 1. Biochemistry, 2013, 52, 8969-8971.	2.5	19
30	Ultrasound-induced molecular delivery to erythrocytes using a microfluidic system. Biomicrofluidics, 2020, 14, 024114.	2.4	19
31	Binding of Urate and Caffeine to Hemocyanin of the Lobster Homarus vulgaris (E.) As Studied by Isothermal Titration Calorimetry. Biochemistry, 2000, 39, 10806-10811.	2.5	18
32	Caspase activity during cell stasis: avoidance of apoptosis in an invertebrate extremophile, Artemia franciscana. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2007, 292, R2039-R2047.	1.8	18
33	Metabolic preconditioning of mammalian cells: mimetic agents for hypoxia lack fidelity in promoting phosphorylation of pyruvate dehydrogenase. Cell and Tissue Research, 2013, 351, 99-106.	2.9	18
34	Global changes to HepG2 cell metabolism in response to galactose treatment. American Journal of Physiology - Cell Physiology, 2021, 320, C778-C793.	4.6	16
35	Reduced Mitochondrial Efficiency Explains Mismatched Growth and Metabolic Rate at Supraoptimal Temperatures. Physiological and Biochemical Zoology, 2017, 90, 294-298.	1.5	14
36	How do animal mitochondria tolerate water stress?. Communicative and Integrative Biology, 2009, 2, 428-430.	1.4	13

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37	Cryopreservation of Spin-Dried Mammalian Cells. PLoS ONE, 2011, 6, e24916.	2.5	12
38	Tradeoffs of warm adaptation in aquatic ectotherms: Live fast, die young?. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2016, 191, 209-215.	1.8	12
39	Structural properties and cellular expression of AfrLEA6, a group 6 late embryogenesis abundant protein from embryos of Artemia franciscana. Cell Stress and Chaperones, 2019, 24, 979-990.	2.9	12
40	Binding of thiazolidinediones to the endoplasmic reticulum protein nutrient-deprivation autophagy factor-1. Bioorganic and Medicinal Chemistry Letters, 2019, 29, 901-904.	2.2	11
41	Sonoporation enables high-throughput loading of trehalose into red blood cells. Cryobiology, 2021, 98, 73-79.	0.7	11
42	Genetic engineering, a hope for sustainable biofuel production: review. Journal of Chitwan Medical College, 2014, 3, 311-323.	0.2	9
43	Modulation of cellular energetics by galactose and pioglitazone. Cell and Tissue Research, 2017, 369, 641-646.	2.9	9
44	Functional and Conformational Plasticity of an Animal Group 1 LEA Protein. Biomolecules, 2022, 12, 425.	4.0	9
45	Desiccation Kinetics and Biothermodynamics of Glass Forming Trehalose Solutions in Thin Films. Annals of Biomedical Engineering, 2008, 36, 1428-1439.	2.5	8
46	Mitochondrial energetics of benthic and pelagic Antarctic teleosts. Marine Biology, 2013, 160, 2813-2823.	1.5	8
47	Physiological performance of warm-adapted marine ectotherms: Thermal limits of mitochondrial energy transduction efficiency. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2016, 191, 216-225.	1.8	8
48	4-Hydroxynonenal and 4-Oxononenal Differentially Bind to the Redox Sensor MitoNEET. Chemical Research in Toxicology, 2019, 32, 977-981.	3.3	8
49	Thermodynamics of effector binding to hemocyanin: Influence of temperature. Archives of Biochemistry and Biophysics, 2009, 483, 37-44.	3.0	6
50	New insights into anhydrobiosis using cellular dielectrophoresis-based characterization. Biomicrofluidics, 2019, 13, 064113.	2.4	6
51	Selection on dispersal drives evolution of metabolic capacities for energy production in female wingâ€polymorphic sand field crickets, Gryllus firmus. Journal of Evolutionary Biology, 2022, 35, 599-609.	1.7	5
52	Acoustofluidic-mediated molecular delivery to human T cells with a three-dimensional-printed flow chamber. Journal of the Acoustical Society of America, 2021, 150, 4534-4547.	1.1	5
53	Expression, purification, and characterization of an intrinsically disordered Late Embryogenesis Abundant (LEA) protein from Artemia franciscana utilizing Escherichia coli and Nicotiana tabacum. FASEB Journal, 2017, 31, 914.3.	0.5	1
54	Seasonal changes in mitochondrial bioenergetics and physiological performance of the bluegill sunfish, Lepomis macrochirus, from a shallow, Midwest river. Journal of Thermal Biology, 2022, 104, 103186.	2.5	1

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55	Choline Chloride Improves the Desiccation Tolerance of Chinese Hamster Ovary Cells. , 2010, , .		0
56	Development of a high-performance ultrasonic flow system for cell transformation. , 2018, , .		0
57	Calorespirometry: A Powerful, Noninvasive Approach to Investigate Cellular Energy Metabolism. Journal of Visualized Experiments, 2018, , .	0.3	0
58	Assembly and Operation of an Acoustofluidic Device for Enhanced Delivery of Molecular Compounds to Cells. Journal of Visualized Experiments, 2021, , .	0.3	0
59	Sonoporation-mediated trehalose loading for red blood cell stabilization. Cryobiology, 2020, 97, 273.	0.7	0