John C Bischof

List of Publications by Year
in descending order

203 papers	10,212 citations	31902 53 h-index	42291 92 g-index
224 all docs	224 docs citations	224 times ranked	10308 citing authors

#	Article	IF	Citations
1	The cryobiology of cryosurgical injury. Urology, 2002, 60, 40-49.	0.5	520
2	Thermophysical and biological responses of gold nanoparticle laser heating. Chemical Society Reviews, 2012, 41, 1191-1217.	18.7	486
3	The promise of organ and tissue preservation to transform medicine. Nature Biotechnology, 2017, 35, 530-542.	9.4	371
4	Mechanical property characterization of mouse zona pellucida. IEEE Transactions on Nanobioscience, 2003, 2, 279-286.	2.2	282
5	A Review of Basic to Clinical Studies of Irreversible Electroporation Therapy. IEEE Transactions on Biomedical Engineering, 2015, 62, 4-20.	2.5	278
6	Ultrasensitive and Highly Specific Lateral Flow Assays for Point-of-Care Diagnosis. ACS Nano, 2021, 15, 3593-3611.	7.3	270
7	Multisite Validation of Cryptococcal Antigen Lateral Flow Assay and Quantification by Laser Thermal Contrast. Emerging Infectious Diseases, 2014, 20, 45-53.	2.0	253
8	Enhancement of tumor thermal therapy using gold nanoparticleâ€“assisted tumor necrosis factor-Î± delivery. Molecular Cancer Therapeutics, 2006, 5, 1014-1020.	1.9	249
9	Thermal Stability of Proteins. Annals of the New York Academy of Sciences, 2005, 1066, 12-33.	1.8	229
10	Identification of the biologically active liquid chemistry induced by a nonthermal atmospheric pressure plasma jet. Biointerphases, 2015, 10, 029518.	0.6	226
11	Improved tissue cryopreservation using inductive heating of magnetic nanoparticles. Science Translational Medicine, 2017, 9, .	5.8	213
12	Transgenic sickle mice have vascular inflammation. Blood, 2003, 101, 3953-3959.	0.6	195
13	Biodistribution of TNF-Î±-coated gold nanoparticles in an <i>in vivo</i> model system. Nanomedicine, 2009, 4, 401-410.	1.7	171
14	In vitrocharacterization of movement, heating and visualization of magnetic nanoparticles for biomedical applications. Nanotechnology, 2005, 16, 1221-1233.	1.3	157
15	Significantly Improved Analytical Sensitivity of Lateral Flow Immunoassays by Using Thermal Contrast. Angewandte Chemie - International Edition, 2012, 51, 4358-4361.	7.2	155
16	Quantification of Temperature and Injury Response in Thermal Therapy and Cryosurgery. Critical Reviews in Biomedical Engineering, 2003, 31, 355-422.	0.5	150
17	The Role of Nanoparticle Design in Determining Analytical Performance of Lateral Flow Immunoassays. Nano Letters, 2017, 17, 7207-7212.	4.5	149
18	Effects of Freezing and Cryopreservation on the Mechanical Properties of Arteries. Annals of Biomedical Engineering, 2006, 34, 823-832.	1.3	124

#	Article	IF	Citations
19	Measurement of Water Transport during Freezing in Cell Suspensions Using a Differential Scanning Calorimeter. Cryobiology, 1998, 36, 124-155.	0.3	118
20	Quantitative Comparison of Photothermal Heat Generation between Gold Nanospheres and Nanorods. Scientific Reports, 2016, 6, 29836.	1.6	114
21	Bloodâ€“Nanoparticle Interactions and <i>in Vivo</i> Biodistribution: Impact of Surface PEG and Ligand Properties. Molecular Pharmaceutics, 2012, 9, 2146-2155.	2.3	113
22	The Grand Challenges of Organ Banking: Proceedings from the first global summit on complex tissue cryopreservation. Cryobiology, 2016, 72, 169-182.	0.3	110
23	Gold Nanorod Induced Warming of Embryos from the Cryogenic State Enhances Viability. ACS Nano, 2017, 11, 7869-7878.	7.3	106
24	Direct cell injury associated with eutectic crystallization during freezing. Cryobiology, 2004, 48, 8-21.	0.3	104
25	Accounting for biological aggregation in heating and imaging of magnetic nanoparticles. Technology, 2014, 02, 214-228.	1.4	102
26	Review of biomaterial thermal property measurements in the cryogenic regime and their use for prediction of equilibrium and non-equilibrium freezing applications in cryobiology. Cryobiology, 2010, 60, 52-70.	0.3	98
27	Cellular Level Loading and Heating of Superparamagnetic Iron Oxide Nanoparticles. Langmuir, 2007, 23, 12329-12336.	1.6	92
28	RF heating of magnetic nanoparticles improves the thawing of cryopreserved biomaterials. Technology, 2014, 02, 229-242.	1.4	89
29	Freezing-Induced Phase Separation and Spatial Microheterogeneity in Protein Solutions. Journal of Physical Chemistry B, 2009, 113, 10081-10087.	1.2	84
30	Cryosurgical changes in the porcine kidney: histologic analysis with thermal history correlation. Cryobiology, 2002, 45, 167-182.	0.3	82
31	Thermal Contrast Amplification Reader Yielding 8-Fold Analytical Improvement for Disease Detection with Lateral Flow Assays. Analytical Chemistry, 2016, 88, 11774-11782.	3.2	81
32	Effects of freezing on membranes and proteins in LNCaP prostate tumor cells. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 728-736.	1.4	77
33	Subzero Water Permeability Parameters of Mouse Spermatozoa in the Presence of Extracellular Ice and Cryoprotective Agents1. Biology of Reproduction, 1999, 61, 764-775.	1.2	76
34	In Situ Thermal Denaturation of Proteins in Dunning AT-1 Prostate Cancer Cells: Implication for Hyperthermic Cell Injury. Annals of Biomedical Engineering, 2004, 32, 1384-1398.	1.3	76
35	TNF-Î±â€“based accentuation in cryoinjuryâ€”dose, delivery, and response. Molecular Cancer Therapeutics, 2007, 6, 2039-2047.	1.9	75
36	Predictable Heating and Positive MRI Contrast from a Mesoporous Silica-Coated Iron Oxide Nanoparticle. Molecular Pharmaceutics, 2016, 13, 2172-2183.	2.3	75

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37	Cryosurgery of Normal and Tumor Tissue in the Dorsal Skin Flap Chamber: Part Iâ€"Thermal Response. Journal of Biomechanical Engineering, 2001, 123, 301-309.	0.6	74
38	Engineering T cell response to cancer antigens by choice of focal therapeutic conditions. International Journal of Hyperthermia, 2019, 36, 130-138.	1.1	74
39	Cellular Uptake and Nanoscale Localization of Gold Nanoparticles in Cancer Using Label-Free Confocal Raman Microscopy. Molecular Pharmaceutics, 2011, 8, 176-184.	2.3	72
40	Evaluating Broader Impacts of Nanoscale Thermal Transport Research. Nanoscale and Microscale Thermophysical Engineering, 2015, 19, 127-165.	1.4	69
41	Microvascular blood flow and stasis in transgenic sickle mice: Utility of a dorsal skin fold chamber for intravital microscopy. American Journal of Hematology, 2004, 77, 117-125.	2.0	67
42	Nanoparticle Delivered Vascular Disrupting Agents (VDAs): Use of TNF-Alpha Conjugated Gold Nanoparticles for Multimodal Cancer Therapy. Molecular Pharmaceutics, 2013, 10, 1683-1694.	2.3	67
43	Quantitative Measurement and Prediction of Biophysical Response During Freezing in Tissues. Annual Review of Biomedical Engineering, 2000, 2, 257-288.	5.7	66
44	Supraphysiological Thermal Injury in Dunning AT-1 Prostate Tumor Cells. Journal of Biomechanical Engineering, 2000, 122, 51-59.	0.6	64
45	In vitroassessment of the efficacy of thermal therapy in human benign prostatic hyperplasia. International Journal of Hyperthermia, 2004, 20, 421-439.	1.1	64
46	Optimizing Magnetic Nanoparticle Based Thermal Therapies Within the Physical Limits of Heating. Annals of Biomedical Engineering, 2013, 41, 78-88.	1.3	61
47	Preparation of Scalable Silicaâ€Coated Iron Oxide Nanoparticles for Nanowarming. Advanced Science, 2020, 7, 1901624.	5.6	61
48	Successful cryopreservation of coral larvae using vitrification and laser warming. Scientific Reports, 2018, 8, 15714.	1.6	60
49	A Parametric Study of Freezing Injury in AT-1 Rat Prostate Tumor Cells. Cryobiology, 1999, 39, 13-28.	0.3	58
50	Adjuvant Approaches to Enhance Cryosurgery. Journal of Biomechanical Engineering, 2009, 131, 074003.	0.6	58
51	Quantifying intra- and extracellular aggregation of iron oxide nanoparticles and its influence on specific absorption rate. Nanoscale, 2016, 8, 16053-16064.	2.8	58
52	Investigation of the Mechanism and the Effect of Cryoimmunology in the Copenhagen Rat. Cryobiology, 2001, 42, 59-68.	0.3	57
53	The Kinetics of Thermal Injury in Human Renal Carcinoma Cells. Annals of Biomedical Engineering, 2005, 33, 502-510.	1.3	57
54	Nanoparticle preconditioning for enhanced thermal therapies in cancer. Nanomedicine, 2011, 6, 545-563.	1.7	56

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55	Nanotherapeutics for enhancing thermal therapy of cancer. International Journal of Hyperthermia, 2007, 23, 501-511.	1.1	54
56	Freezeâ€“Thaw Induced Biomechanical Changes in Arteries: Role of Collagen Matrix and Smooth Muscle Cells. Annals of Biomedical Engineering, 2010, 38, 694-706.	1.3	54
57	Spatial Distribution of the State of Water in Frozen Mammalian Cells. Biophysical Journal, 2010, 99, 2453-2459.	0.2	53
58	Correlated Parameter Fit of Arrhenius Model for Thermal Denaturation of Proteins and Cells. Annals of Biomedical Engineering, 2014, 42, 2392-2404.	1.3	52
59	Quantifying ironâ€oxide nanoparticles at high concentration based on longitudinal relaxation using a threeâ€dimensional SWIFT lookâ€locker sequence. Magnetic Resonance in Medicine, 2014, 71, 1982-1988.	1.9	51
60	Thermal Therapy in Urologic Systems: A Comparison of Arrhenius and Thermal Isoeffective Dose Models in Predicting Hyperthermic Injury. Journal of Biomechanical Engineering, 2009, 131, 074507.	0.6	50
61	Pre-treatment inflammation induced by TNF-Î± augments cryosurgical injury on human prostate cancer. Cryobiology, 2004, 49, 10-27.	0.3	49
62	Membrane hydration correlates to cellular biophysics during freezing in mammalian cells. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 945-953.	1.4	49
63	Effect of Microscale Mass Transport and Phase Change on Numerical Prediction of Freezing in Biological Tissues. Journal of Heat Transfer, 2002, 124, 365-374.	1.2	47
64	In vitrothermal therapy of AT-1 Dunning prostate tumours. International Journal of Hyperthermia, 2004, 20, 73-92.	1.1	47
65	Characterization of Laser Gold Nanowarming: A Platform for Millimeter-Scale Cryopreservation. Langmuir, 2019, 35, 7364-7375.	1.6	46
66	Reusable bi-directional 3<i>Ï‰</i> sensor to measure thermal conductivity of 100-<i>Î¼</i>m thick biological tissues. Review of Scientific Instruments, 2015, 86, 014905.	0.6	45
67	Cryopreservation by vitrification. Current Opinion in Organ Transplantation, 2018, 23, 353-360.	0.8	44
68	Irreversible electroporation augments checkpoint immunotherapy in prostate cancer and promotes tumor antigen-specific tissue-resident memory CD8+ T cells. Nature Communications, 2021, 12, 3862.	5.8	42
69	Irreversible Electroporation: An In Vivo Study with Dorsal Skin Fold Chamber. Annals of Biomedical Engineering, 2013, 41, 619-629.	1.3	41
70	Vitrification and Nanowarming of Kidneys. Advanced Science, 2021, 8, e2101691.	5.6	41
71	Cryosurgery of Normal and Tumor Tissue in the Dorsal Skin Flap Chamber: Part IIâ€”Injury Response. Journal of Biomechanical Engineering, 2001, 123, 310-316.	0.6	40
72	Water transport and IIF parameters for a connective tissue equivalent. Cryobiology, 2006, 52, 62-73.	0.3	40

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73	Polynitroxyl albumin inhibits inflammation and vasoocclusion in transgenic sickle mice. Translational Research, 2005, 145, 204-211.	2.4	39
74	Pancreatic islet cryopreservation by vitrification achieves high viability, function, recovery and clinical scalability for transplantation. Nature Medicine, 2022, 28, 798-808.	15.2	39
75	Engineering Challenges in Tissue Preservation. Cell Preservation Technology, 2004, 2, 91-112.	0.8	38
76	In vitro model systems for evaluation of smooth muscle cell response to cryoplasty. Cryobiology, 2005, 50, 162-173.	0.3	38
77	Microscopic and Calorimetric Assessment of Freezing Processes in Uterine Fibroid Tumor Tissue. Cryobiology, 2001, 42, 225-243.	0.3	37
78	Measurement and numerical analysis of freezing in solutions enclosed in a small container. International Journal of Heat and Mass Transfer, 2002, 45, 1915-1931.	2.5	37
79	Thermal Processing of Biological Tissue at High Temperatures: Impact of Protein Denaturation and Water Loss on the Thermal Properties of Human and Porcine Liver in the Range 25â€“80â€‰Â°C. Journal of Heat Transfer, 2013, 135, .	1.2	37
80	Methods for Characterizing Convective Cryoprobe Heat Transfer in Ultrasound Gel Phantoms. Journal of Biomechanical Engineering, 2013, 135, 021002.	0.6	37
81	Thermodynamic Nonequilibrium Phase Change Behavior and Thermal Properties of Biological Solutions for Cryobiology Applications. Journal of Biomechanical Engineering, 2004, 126, 196-203.	0.6	36
82	Cryopreservation of Collagen-Based Tissue Equivalents. I. Effect of Freezing in the Absence of Cryoprotective Agents. Tissue Engineering, 2003, 9, 1089-1100.	4.9	35
83	A quantitative analysis on latent heat of an aqueous binary mixture. Cryobiology, 2006, 52, 146-151.	0.3	35
84	Use of X-ray Tomography to Map Crystalline and Amorphous Phases in Frozen Biomaterials. Annals of Biomedical Engineering, 2007, 35, 292-304.	1.3	35
85	Pre-conditioning cryosurgery: Cellular and molecular mechanisms and dynamics of TNF-Î± enhanced cryotherapy in an in vivo prostate cancer model system. Cryobiology, 2010, 61, 280-288.	0.3	35
86	Use of Tumor Necrosis Factorâ€“alpha-coated Gold Nanoparticles to Enhance Radiofrequency Ablation in a Translational Model of Renal Tumors. Urology, 2010, 76, 494-498.	0.5	35
87	Thermo-mechanical stress analysis of cryopreservation in cryobags and the potential benefit of nanowarming. Cryobiology, 2017, 76, 129-139.	0.3	34
88	Quantification and biodistribution of iron oxide nanoparticles in the primary clearance organs of mice using T ₁ contrast for heating. Magnetic Resonance in Medicine, 2017, 78, 702-712.	1.9	34
89	Development and optimization of thermal contrast amplification lateral flow immunoassays for ultrasensitive HIV p24 protein detection. Microsystems and Nanoengineering, 2020, 6, 54.	3.4	33
90	Cryopreservation of Collagen-Based Tissue Equivalents. II. Improved Freezing in the Presence of Cryoprotective Agents. Tissue Engineering, 2004, 10, 23-32.	4.9	32

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91	Tumor necrosis factor-Î±â€“induced accentuation in cryoinjury: mechanisms <i>in vitro</i> and <i>in vivo</i>. Molecular Cancer Therapeutics, 2008, 7, 2547-2555.	1.9	31
92	Liver Freezing Response of the Freeze-Tolerant Wood Frog, Rana sylvatica, in the Presence and Absence of Glucose. I. Experimental Measurements. Cryobiology, 1999, 38, 310-326.	0.3	30
93	Thermomechanical Stress in Cryopreservation Via Vitrification With Nanoparticle Heating as a Stress-Moderating Effect. Journal of Biomechanical Engineering, 2016, 138, .	0.6	30
94	Nanowarming using Au-tipped Co₃₅Fe₆₅ ferromagnetic nanowires. Nanoscale, 2019, 11, 14607-14615.	2.8	30
95	Analysis of Thermal Stress in Cryosurgery of Kidneys. Journal of Biomechanical Engineering, 2005, 127, 656-661.	0.6	29
96	Cellular Biophysics During Freezing of Rat and Mouse Sperm Predicts Post-thaw Motility1. Biology of Reproduction, 2009, 81, 700-706.	1.2	29
97	Magneto acoustic tomography with short pulsed magnetic field for in-vivo imaging of magnetic iron oxide nanoparticles. Nanomedicine: Nanotechnology, Biology, and Medicine, 2016, 12, 689-699.	1.7	29
98	Improved Cryosurgery by Use of Thermophysical and Inflammatory Adjuvants. Technology in Cancer Research and Treatment, 2004, 3, 103-111.	0.8	28
99	<italic>In Vivo</italic> Electrical Conductivity Contrast Imaging in a Mouse Model of Cancer Using High-Frequency Magnetoacoustic Tomography With Magnetic Induction (hfMAT-MI). IEEE Transactions on Medical Imaging, 2016, 35, 2301-2311.	5.4	28
100	Membrane-Targeting Approaches for Enhanced Cancer Cell Destruction with Irreversible Electroporation. Annals of Biomedical Engineering, 2014, 42, 193-204.	1.3	27
101	Liver Freezing Response of the Freeze-Tolerant Wood Frog, Rana sylvatica, in the Presence and Absence of Glucose. II. Mathematical Modeling. Cryobiology, 1999, 38, 327-338.	0.3	26
102	Measurement and Prediction of Thermal Behavior and Acute Assessment of Injury in a Pig Model of Renal Cryosurgery. Journal of Endourology, 2001, 15, 193-197.	1.1	26
103	Use of a Fluorescently Labeled Poly-Caspase Inhibitor for <i>in Vivo</i> Detection of Apoptosis Related to Vascular-Targeting Agent Arsenic Trioxide for Cancer Therapy. Technology in Cancer Research and Treatment, 2007, 6, 651-654.	0.8	26
104	Calorimetric measurement of water transport and intracellular ice formation during freezing in cell suspensions. Cryobiology, 2012, 65, 242-255.	0.3	26
105	Ice Formation in Isolated Human Hepatocytes and Human Liver Tissue. ASAIO Journal, 1997, 43, 271-278.	0.9	26
106	Pulse Timing During Irreversible Electroporation Achieves Enhanced Destruction in a Hindlimb Model of Cancer. Annals of Biomedical Engineering, 2015, 43, 887-895.	1.3	25
107	Cryopreservation and Laser Nanowarming of Zebrafish Embryos Followed by Hatching and Spawning. Advanced Biology, 2020, 4, e2000138.	3.0	25
108	Vitrification and Rewarming of Magnetic Nanoparticleâ€Loaded Rat Hearts. Advanced Materials Technologies, 2022, 7, 2100873.	3.0	25

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109	A Cryoinjury Model Using Engineered Tissue Equivalents for Cryosurgical Applications. Annals of Biomedical Engineering, 2005, 33, 972-982.	1.3	24
110	Micro and nanoscale phenomenon in bioheat transfer. Heat and Mass Transfer, 2006, 42, 955-966.	1.2	24
111	Biomaterial scaffolds for non-invasive focal hyperthermia as a potential tool to ablate metastatic cancer cells. Biomaterials, 2018, 166, 27-37.	5.7	23
112	Ultrarapid Inductive Rewarming of Vitrified Biomaterials with Thin Metal Forms. Annals of Biomedical Engineering, 2018, 46, 1857-1869.	1.3	23
113	A quantitative analysis of the thermal properties of porcine liver with glycerol at subzero and cryogenic temperatures. Cryobiology, 2008, 57, 79-83.	0.3	22
114	In vivo imaging of electrical properties of an animal tumor model with an 8â€channel transceiver array at 7â€‰T using electrical properties tomography. Magnetic Resonance in Medicine, 2017, 78, 2157-2169.	1.9	22
115	From Nanowarming to Thermoregulation: New Multiscale Applications of Bioheat Transfer. Annual Review of Biomedical Engineering, 2018, 20, 301-327.	5.7	22
116	Conduction Cooling and Plasmonic Heating Dramatically Increase Droplet Vitrification Volumes for Cell Cryopreservation. Advanced Science, 2021, 8, 2004605.	5.6	22
117	A Simple Cryopreservation Method for the Maintenance of Cell Viability and Mechanical Integrity of a Cultured Cartilage Analog. Cryobiology, 2000, 40, 370-375.	0.3	21
118	Diffusion Limited Cryopreservation of Tissue with Radiofrequency Heated Metal Forms. Advanced Healthcare Materials, 2020, 9, e2000796.	3.9	21
119	Cryothermic and Hyperthermic Treatments of Human Leiomyomata and Adjacent Myometrium and Their Implications for Laparoscopic Surgery. Journal of Minimally Invasive Gynecology, 2003, 10, 90-98.	1.4	20
120	Thermal Injury Prediction During Cryoplasty Through InÂVitro Characterization of Smooth Muscle Cell Biophysics and Viability. Annals of Biomedical Engineering, 2008, 36, 86-101.	1.3	20
121	Cooling rate dependent biophysical and viability response shift with attachment state in human dermal fibroblast cells. Cryobiology, 2011, 63, 285-291.	0.3	20
122	Concentration and volume effects in thermochemical ablation in vivo: Results in a porcine model. International Journal of Hyperthermia, 2012, 28, 113-121.	1.1	20
123	Photothermal conversion of gold nanoparticles for uniform pulsed laser warming of vitrified biomaterials. Nanoscale, 2020, 12, 12346-12356.	2.8	20
124	Cryopreservation method for Drosophila melanogaster embryos. Nature Communications, 2021, 12, 2412.	5.8	20
125	Multiscale Thermal Property Measurements for Biomedical Applications. ACS Biomaterials Science and Engineering, 2017, 3, 2669-2691.	2.6	18
126	fMâ€“aM Detection of the SARS-CoV-2 Antigen by Advanced Lateral Flow Immunoassay Based on Gold Nanospheres. ACS Applied Nano Materials, 2021, 4, 13826-13837.	2.4	18

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127	A Simple Transient Method for Measurement of Thermal Conductivity of Rigid Polyurethane Foams. Journal of Cellular Plastics, 2008, 44, 481-491.	1.2	17
128	In vivo comparison of simultaneous versus sequential injection technique for thermochemical ablation in a porcine model. International Journal of Hyperthermia, 2012, 28, 105-112.	1.1	17
129	A quantitative analysis on the thermal properties of phosphate buffered saline with glycerol at subzero temperatures. International Journal of Heat and Mass Transfer, 2008, 51, 640-649.	2.5	16
130	Physical and Chemical Enhancement of and Adaptive Resistance to Irreversible Electroporation of Pancreatic Cancer. Annals of Biomedical Engineering, 2018, 46, 25-36.	1.3	16
131	Aggregation affects optical properties and photothermal heating of gold nanospheres. Scientific Reports, 2021, 11, 898.	1.6	16
132	Fourier Transform Infrared Spectroscopy Investigation of Native Tissue Matrix Modifications Using a Gamma Irradiation Process. Tissue Engineering - Part C: Methods, 2009, 15, 33-40.	1.1	15
133	A Hydrophobic Gel Phantom for Study of Thermochemical Ablation: Initial Results Using a Weak Acid and Weak Base. Journal of Vascular and Interventional Radiology, 2009, 20, 1352-1358.	0.2	15
134	In vivo imaging and quantification of iron oxide nanoparticle uptake and biodistribution. , 2012, 8317, .		15
135	Ion-Mobility-Based Quantification of Surface-Coating-Dependent Binding of Serum Albumin to Superparamagnetic Iron Oxide Nanoparticles. ACS Applied Materials & Interfaces, 2016, 8, 24482-24490.	4.0	15
136	Measurement of Specific Heat and Crystallization in VS55, DP6, and M22 Cryoprotectant Systems With and Without Sucrose. Biopreservation and Biobanking, 2018, 16, 270-277.	0.5	15
137	Thermal Therapy of Prostate Tumor Tissue in the Dorsal Skin Flap Chamber. Microvascular Research, 2002, 64, 170-173.	1.1	14
138	Third Prize: Comparison of Radical Nephrectomy, Laparoscopic Microwave Thermotherapy, Cryotherapy, and Radiofrequency Ablation for Destruction of Experimental VX-2 Renal Tumors in Rabbits. Journal of Endourology, 2005, 19, 1082-1187.	1.1	14
139	Determination of cryothermal injury thresholds in tissues impacted by cardiac cryoablation. Cryobiology, 2017, 75, 125-133.	0.3	14
140	Cryoinjury of MCF-7 Human Breast Cancer Cells and Inhibition of Post-Thaw Recovery Using TNF-Î±. Technology in Cancer Research and Treatment, 2007, 6, 625-633.	0.8	13
141	A Micro-Thermal Sensor for Focal Therapy Applications. Scientific Reports, 2016, 6, 21395.	1.6	13
142	Mapping electrical properties heterogeneity of tumor using boundary informed electrical properties tomography (BIEPT) at 7T. Magnetic Resonance in Medicine, 2019, 81, 393-409.	1.9	13
143	The impact of data selection and fitting on SAR estimation for magnetic nanoparticle heating. International Journal of Hyperthermia, 2020, 37, 100-107.	1.1	13
144	Response Of A Liver Tissue Slab To An Hyperosmotic Sucrose Boundary Condition: Microscale Cellular And Vascular Level Effectsa. Annals of the New York Academy of Sciences, 1998, 858, 147-162.	1.8	12

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145	Histologic differences between cryothermic and hyperthermic therapies. , 2003, , .		10
146	Enhancement of cell and tissue destruction in cryosurgery by use of eutectic freezing. , 2003, 4954, 106.		10
147	Imaging the distribution of iron oxide nanoparticles in hypothermic perfused tissues. Magnetic Resonance in Medicine, 2020, 83, 1750-1759.	1.9	10
148	Thermal conductivity of cryoprotective agents loaded with nanoparticles, with application to recovery of preserved tissues and organs from cryogenic storage. PLoS ONE, 2020, 15, e0238941.	1.1	10
149	<i>In vivo</i> detection of the effects of preconditioning on LNCaP tumors by a TNF-Î± nanoparticle construct using MRI. NMR in Biomedicine, 2014, 27, 1063-1069.	1.6	8
150	The Role of Protein Loss and Denaturation in Determining Outcomes of Heating, Cryotherapy, and Irreversible Electroporation on Cardiomyocytes. Journal of Biomechanical Engineering, 2018, 140, .	0.6	8
151	Spectroscopic and Calorimetric Evaluation of Chemically Induced Protein Denaturation in HuH-7 Liver Cancer Cells and Impact on Cell Survival. Technology in Cancer Research and Treatment, 2012, 11, 467-473.	0.8	7
152	A three-dimensional transient computational study of 532-nm laser thermal ablation in a geometrical model representing prostate tissue. International Journal of Hyperthermia, 2018, 35, 568-577.	1.1	7
153	Phosphonate coating of commercial iron oxide nanoparticles for nanowarming cryopreserved samples. Journal of Materials Chemistry B, 2022, 10, 3734-3746.	2.9	7
154	Biophysics Of Freezing In Liver Of The Freeze-Tolerant Wood Frog, R. Sylvaticaa. Annals of the New York Academy of Sciences, 1998, 858, 284-297.	1.8	6
155	Phase Change Behavior of Biomedically Relevant Solutions. , 2002, , 67.		6
156	Real-time monitoring of thermal and mechanical response to sub-therapeutic HIFU beams in vivo. , 2010, , .		6
157	A Head and Neck Support Device for Inducing Local Hypothermia. Journal of Medical Devices, Transactions of the ASME, 2014, 8, 0110021-110029.	0.4	6
158	Liver Cryopreservation for Regenerative Medicine Applications. Regenerative Engineering and Translational Medicine, 2021, 7, 57-65.	1.6	6
159	Thermal Analyses of Nanowarming-Assisted Recovery of the Heart From Cryopreservation by Vitrification. Journal of Heat Transfer, 2022, 144, .	1.2	6
160	Frontiers in Biotransport: Water Transport and Hydration. Journal of Biomechanical Engineering, 2009, 131, 074004.	0.6	5
161	Dynamic imaging of tumor perfusion using contrast enhanced ultrasound: In vivo results. , 2014, , .		5
162	Thermal thresholds of cardiovascular HL-1 cell destruction by cryothermal exposure. Cryobiology, 2017, 78, 115-118.	0.3	5

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163	Improved detection of group A <i>Streptococcus</i> during thermal contrast amplification <i>vs.</i> visual reading of clinical rapid diagnostic tests. Analytical Methods, 2019, 11, 2013-2017.	1.3	5
164	Improved Influenza Diagnostics through Thermal Contrast Amplification. Diagnostics, 2021, 11, 462.	1.3	5
165	Effects of Freezing on the Mechanical Properties of Blood Vessels. , 2004, , 699.		4
166	Assessing pH and Oxygenation in Cryotherapy-induced Cytotoxicity and Tissue Response to Freezing. Technology in Cancer Research and Treatment, 2004, 3, 245-251.	0.8	4
167	Blood protein and blood cell interactions with gold nanoparticles: the need for in vivo studies. BioNanoMaterials, 2013, 14, .	1.4	4
168	Optimizing Integrated Electrode Design for Irreversible Electroporation of Implanted Polymer Scaffolds. Annals of Biomedical Engineering, 2020, 48, 1230-1240.	1.3	4
169	Mechanisms of Injury Caused by in Vivo Freezing. , 2004, , 455-481.		4
170	Ice Control during Cryopreservation of Heart Valves and Maintenance of Post-Warming Cell Viability. Cells, 2022, 11, 1856.	1.8	4
171	Effect of Thermal Properties on Heat Transfer in Cryopreservation and Cryosurgery. , 2002, , 7.		3
172	An In Vitro Study on Adjuvant Enhanced Irreversible Electroporation. , 2012, , .		3
173	Adaptive third-order Volterra filter for detection and tracking of nonlinear oscillations in ultrasound echo data. , 2013, , .		3
174	Thermal Conductivity Measurements of Thin Biological Tissues Using a Microfabricated 3-Omega Sensor. Journal of Medical Devices, Transactions of the ASME, 2013, 7, .	0.4	3
175	Irreversible Electroporation of Cardiovascular Cells and Tissues. Journal of Medical Devices, Transactions of the ASME, 2013, 7, .	0.4	3
176	Kinetics of nonisothermal phase change with arbitrary temperatureâ€“time history and initial transformed phase distributions. Journal of Chemical Physics, 2021, 155, 211101.	1.2	3
177	Characterization of Miniature Probes for Cryosurgery, Thermal Ablation, and Irreversible Electroporation on Small Animals. Advanced Therapeutics, 2022, 5, .	1.6	3
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