

John C Bischof

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

193
papers

7,839
citations

49
h-index

82
g-index

224
ext. papers

8,990
ext. citations

5.1
avg, IF

6.21
L-index

#	Paper	IF	Citations
193	The cryobiology of cryosurgical injury. <i>Urology</i> , 2002 , 60, 40-9	1.6	453
192	Thermophysical and biological responses of gold nanoparticle laser heating. <i>Chemical Society Reviews</i> , 2012 , 41, 1191-217	58.5	408
191	The promise of organ and tissue preservation to transform medicine. <i>Nature Biotechnology</i> , 2017 , 35, 530-542	44.5	246
190	Mechanical property characterization of mouse zona pellucida. <i>IEEE Transactions on Nanobioscience</i> , 2003 , 2, 279-86	3.4	226
189	Enhancement of tumor thermal therapy using gold nanoparticle-assisted tumor necrosis factor-alpha delivery. <i>Molecular Cancer Therapeutics</i> , 2006 , 5, 1014-20	6.1	222
188	A review of basic to clinical studies of irreversible electroporation therapy. <i>IEEE Transactions on Biomedical Engineering</i> , 2015 , 62, 4-20	5	214
187	Multisite validation of cryptococcal antigen lateral flow assay and quantification by laser thermal contrast. <i>Emerging Infectious Diseases</i> , 2014 , 20, 45-53	10.2	193
186	Identification of the biologically active liquid chemistry induced by a nonthermal atmospheric pressure plasma jet. <i>Biointerphases</i> , 2015 , 10, 029518	1.8	184
185	Thermal stability of proteins. <i>Annals of the New York Academy of Sciences</i> , 2005 , 1066, 12-33	6.5	174
184	Transgenic sickle mice have vascular inflammation. <i>Blood</i> , 2003 , 101, 3953-9	2.2	167
183	Biodistribution of TNF-alpha-coated gold nanoparticles in an in vivo model system. <i>Nanomedicine</i> , 2009 , 4, 401-10	5.6	146
182	In vitro characterization of movement, heating and visualization of magnetic nanoparticles for biomedical applications. <i>Nanotechnology</i> , 2005 , 16, 1221-1233	3.4	141
181	Improved tissue cryopreservation using inductive heating of magnetic nanoparticles. <i>Science Translational Medicine</i> , 2017 , 9,	17.5	135
180	Quantification of temperature and injury response in thermal therapy and cryosurgery. <i>Critical Reviews in Biomedical Engineering</i> , 2003 , 31, 355-422	1.1	129
179	Significantly improved analytical sensitivity of lateral flow immunoassays by using thermal contrast. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 4358-61	16.4	122
178	Blood-nanoparticle interactions and in vivo biodistribution: impact of surface PEG and ligand properties. <i>Molecular Pharmaceutics</i> , 2012 , 9, 2146-55	5.6	105
177	The Role of Nanoparticle Design in Determining Analytical Performance of Lateral Flow Immunoassays. <i>Nano Letters</i> , 2017 , 17, 7207-7212	11.5	99

176	Effects of freezing and cryopreservation on the mechanical properties of arteries. <i>Annals of Biomedical Engineering</i> , 2006 , 34, 823-32	4.7	99
175	Measurement of water transport during freezing in cell suspensions using a differential scanning calorimeter. <i>Cryobiology</i> , 1998 , 36, 124-55	2.7	96
174	Quantitative Comparison of Photothermal Heat Generation between Gold Nanospheres and Nanorods. <i>Scientific Reports</i> , 2016 , 6, 29836	4.9	95
173	Accounting for biological aggregation in heating and imaging of magnetic nanoparticles. <i>Technology</i> , 2014 , 2, 214-228	3	88
172	Review of biomaterial thermal property measurements in the cryogenic regime and their use for prediction of equilibrium and non-equilibrium freezing applications in cryobiology. <i>Cryobiology</i> , 2010 , 60, 52-70	2.7	85
171	Direct cell injury associated with eutectic crystallization during freezing. <i>Cryobiology</i> , 2004 , 48, 8-21	2.7	83
170	The Grand Challenges of Organ Banking: Proceedings from the first global summit on complex tissue cryopreservation. <i>Cryobiology</i> , 2016 , 72, 169-82	2.7	79
169	Cellular level loading and heating of superparamagnetic iron oxide nanoparticles. <i>Langmuir</i> , 2007 , 23, 12329-36	4	77
168	Ultrasensitive and Highly Specific Lateral Flow Assays for Point-of-Care Diagnosis. <i>ACS Nano</i> , 2021 , 15, 3593-3611	16.7	73
167	Cryosurgical changes in the porcine kidney: histologic analysis with thermal history correlation. <i>Cryobiology</i> , 2002 , 45, 167-82	2.7	72
166	Freezing-induced phase separation and spatial microheterogeneity in protein solutions. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 10081-7	3.4	71
165	In situ thermal denaturation of proteins in dunning AT-1 prostate cancer cells: implication for hyperthermic cell injury. <i>Annals of Biomedical Engineering</i> , 2004 , 32, 1384-98	4.7	71
164	Effects of freezing on membranes and proteins in LNCaP prostate tumor cells. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2007 , 1768, 728-36	3.8	69
163	Subzero water permeability parameters of mouse spermatozoa in the presence of extracellular ice and cryoprotective agents. <i>Biology of Reproduction</i> , 1999 , 61, 764-75	3.9	68
162	TNF-alpha-based accentuation in cryoinjury--dose, delivery, and response. <i>Molecular Cancer Therapeutics</i> , 2007 , 6, 2039-47	6.1	67
161	Gold Nanorod Induced Warming of Embryos from the Cryogenic State Enhances Viability. <i>ACS Nano</i> , 2017 , 11, 7869-7878	16.7	66
160	Cellular uptake and nanoscale localization of gold nanoparticles in cancer using label-free confocal Raman microscopy. <i>Molecular Pharmaceutics</i> , 2011 , 8, 176-84	5.6	64
159	Thermal Contrast Amplification Reader Yielding 8-Fold Analytical Improvement for Disease Detection with Lateral Flow Assays. <i>Analytical Chemistry</i> , 2016 , 88, 11774-11782	7.8	61

158	Cryosurgery of normal and tumor tissue in the dorsal skin flap chamber: Part I--thermal response. <i>Journal of Biomechanical Engineering</i> , 2001 , 123, 301-9	2.1	61
157	Evaluating Broader Impacts of Nanoscale Thermal Transport Research. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2015 , 19, 127-165	3.7	60
156	RF heating of magnetic nanoparticles improves the thawing of cryopreserved biomaterials 2014 , 02, 229-242		60
155	Nanoparticle delivered vascular disrupting agents (VDAs): use of TNF-alpha conjugated gold nanoparticles for multimodal cancer therapy. <i>Molecular Pharmaceutics</i> , 2013 , 10, 1683-94	5.6	60
154	Predictable Heating and Positive MRI Contrast from a Mesoporous Silica-Coated Iron Oxide Nanoparticle. <i>Molecular Pharmaceutics</i> , 2016 , 13, 2172-83	5.6	59
153	In vitro assessment of the efficacy of thermal therapy in human benign prostatic hyperplasia. <i>International Journal of Hyperthermia</i> , 2004 , 20, 421-39	3.7	56
152	Supraphysiological thermal injury in Dunning AT-1 prostate tumor cells. <i>Journal of Biomechanical Engineering</i> , 2000 , 122, 51-9	2.1	55
151	Microvascular blood flow and stasis in transgenic sickle mice: utility of a dorsal skin fold chamber for intravital microscopy. <i>American Journal of Hematology</i> , 2004 , 77, 117-25	7.1	54
150	Quantitative measurement and prediction of biophysical response during freezing in tissues. <i>Annual Review of Biomedical Engineering</i> , 2000 , 2, 257-88	12	54
149	Investigation of the mechanism and the effect of cryoimmunology in the Copenhagen rat. <i>Cryobiology</i> , 2001 , 42, 59-68	2.7	54
148	A parametric study of freezing injury in AT-1 rat prostate tumor cells. <i>Cryobiology</i> , 1999 , 39, 13-28	2.7	53
147	Nanotherapeutics for enhancing thermal therapy of cancer. <i>International Journal of Hyperthermia</i> , 2007 , 23, 501-11	3.7	51
146	Nanoparticle preconditioning for enhanced thermal therapies in cancer. <i>Nanomedicine</i> , 2011 , 6, 545-63	5.6	50
145	Adjuvant approaches to enhance cryosurgery. <i>Journal of Biomechanical Engineering</i> , 2009 , 131, 074003	2.1	50
144	Optimizing magnetic nanoparticle based thermal therapies within the physical limits of heating. <i>Annals of Biomedical Engineering</i> , 2013 , 41, 78-88	4.7	49
143	The kinetics of thermal injury in human renal carcinoma cells. <i>Annals of Biomedical Engineering</i> , 2005 , 33, 502-10	4.7	48
142	Quantifying intra- and extracellular aggregation of iron oxide nanoparticles and its influence on specific absorption rate. <i>Nanoscale</i> , 2016 , 8, 16053-64	7.7	46
141	Freeze-thaw induced biomechanical changes in arteries: role of collagen matrix and smooth muscle cells. <i>Annals of Biomedical Engineering</i> , 2010 , 38, 694-706	4.7	45

140	Pre-treatment inflammation induced by TNF-alpha augments cryosurgical injury on human prostate cancer. <i>Cryobiology</i> , 2004 , 49, 10-27	2.7	44
139	In vitro thermal therapy of AT-1 Dunning prostate tumours. <i>International Journal of Hyperthermia</i> , 2004 , 20, 73-92	3.7	43
138	Membrane hydration correlates to cellular biophysics during freezing in mammalian cells. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2009 , 1788, 945-53	3.8	42
137	Correlated parameter fit of arrhenius model for thermal denaturation of proteins and cells. <i>Annals of Biomedical Engineering</i> , 2014 , 42, 2392-404	4.7	40
136	Quantifying iron-oxide nanoparticles at high concentration based on longitudinal relaxation using a three-dimensional SWIFT Look-Locker sequence. <i>Magnetic Resonance in Medicine</i> , 2014 , 71, 1982-8	4.4	40
135	Spatial distribution of the state of water in frozen mammalian cells. <i>Biophysical Journal</i> , 2010 , 99, 2453-9	2.9	40
134	Thermal therapy in urologic systems: a comparison of arrhenius and thermal isoeffective dose models in predicting hyperthermic injury. <i>Journal of Biomechanical Engineering</i> , 2009 , 131, 074507	2.1	40
133	Effect of Microscale Mass Transport and Phase Change on Numerical Prediction of Freezing in Biological Tissues. <i>Journal of Heat Transfer</i> , 2002 , 124, 365-374	1.8	38
132	Cryosurgery of normal and tumor tissue in the dorsal skin flap chamber: Part II--injury response. <i>Journal of Biomechanical Engineering</i> , 2001 , 123, 310-6	2.1	36
131	Engineering T cell response to cancer antigens by choice of focal therapeutic conditions. <i>International Journal of Hyperthermia</i> , 2019 , 36, 130-138	3.7	35
130	Irreversible electroporation: an in vivo study with dorsal skin fold chamber. <i>Annals of Biomedical Engineering</i> , 2013 , 41, 619-29	4.7	35
129	In vitro model systems for evaluation of smooth muscle cell response to cryoplasty. <i>Cryobiology</i> , 2005 , 50, 162-73	2.7	35
128	Water transport and IIF parameters for a connective tissue equivalent. <i>Cryobiology</i> , 2006 , 52, 62-73	2.7	35
127	Polynitroxyl albumin inhibits inflammation and vasoocclusion in transgenic sickle mice. <i>Translational Research</i> , 2005 , 145, 204-11		35
126	Microscopic and calorimetric assessment of freezing processes in uterine fibroid tumor tissue. <i>Cryobiology</i> , 2001 , 42, 225-43	2.7	35
125	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 2580 °C. <i>Journal of Heat Transfer</i> , 2013 , 135,	1.8	34
124	Successful cryopreservation of coral larvae using vitrification and laser warming. <i>Scientific Reports</i> , 2018 , 8, 15714	4.9	33
123	Reusable bi-directional 3D sensor to measure thermal conductivity of 100-µm thick biological tissues. <i>Review of Scientific Instruments</i> , 2015 , 86, 014905	1.7	32

122	Engineering Challenges in Tissue Preservation. <i>Cell Preservation Technology</i> , 2004 , 2, 91-112		32
121	Cryopreservation of collagen-based tissue equivalents. I. Effect of freezing in the absence of cryoprotective agents. <i>Tissue Engineering</i> , 2003 , 9, 1089-100		32
120	Pre-conditioning cryosurgery: cellular and molecular mechanisms and dynamics of TNF- α enhanced cryotherapy in an in vivo prostate cancer model system. <i>Cryobiology</i> , 2010 , 61, 280-8	2.7	31
119	Measurement and numerical analysis of freezing in solutions enclosed in a small container. <i>International Journal of Heat and Mass Transfer</i> , 2002 , 45, 1915-1931	4.9	31
118	Cryopreservation of collagen-based tissue equivalents. II. Improved freezing in the presence of cryoprotective agents. <i>Tissue Engineering</i> , 2004 , 10, 23-32		30
117	Quantification and biodistribution of iron oxide nanoparticles in the primary clearance organs of mice using T contrast for heating. <i>Magnetic Resonance in Medicine</i> , 2017 , 78, 702-712	4.4	29
116	Use of tumor necrosis factor-alpha-coated gold nanoparticles to enhance radiofrequency ablation in a translational model of renal tumors. <i>Urology</i> , 2010 , 76, 494-8	1.6	29
115	Tumor necrosis factor-alpha-induced accentuation in cryoinjury: mechanisms in vitro and in vivo. <i>Molecular Cancer Therapeutics</i> , 2008 , 7, 2547-55	6.1	29
114	Methods for characterizing convective cryoprobe heat transfer in ultrasound gel phantoms. <i>Journal of Biomechanical Engineering</i> , 2013 , 135, 021002	2.1	28
113	Use of X-ray tomography to map crystalline and amorphous phases in frozen biomaterials. <i>Annals of Biomedical Engineering</i> , 2007 , 35, 292-304	4.7	28
112	A quantitative analysis on latent heat of an aqueous binary mixture. <i>Cryobiology</i> , 2006 , 52, 146-51	2.7	28
111	Preparation of Scalable Silica-Coated Iron Oxide Nanoparticles for Nanowarming. <i>Advanced Science</i> , 2020 , 7, 1901624	13.6	28
110	Magneto acoustic tomography with short pulsed magnetic field for in-vivo imaging of magnetic iron oxide nanoparticles. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2016 , 12, 689-699	6	26
109	Thermodynamic nonequilibrium phase change behavior and thermal properties of biological solutions for cryobiology applications. <i>Journal of Biomechanical Engineering</i> , 2004 , 126, 196-203	2.1	26
108	Measurement and prediction of thermal behavior and acute assessment of injury in a pig model of renal cryosurgery. <i>Journal of Endourology</i> , 2001 , 15, 193-7	2.7	25
107	Liver freezing response of the freeze-tolerant wood frog, <i>Rana sylvatica</i> , in the presence and absence of glucose. I. Experimental measures. <i>Cryobiology</i> , 1999 , 38, 310-26	2.7	25
106	Pulse timing during irreversible electroporation achieves enhanced destruction in a hindlimb model of cancer. <i>Annals of Biomedical Engineering</i> , 2015 , 43, 887-95	4.7	24
105	Membrane-targeting approaches for enhanced cancer cell destruction with irreversible electroporation. <i>Annals of Biomedical Engineering</i> , 2014 , 42, 193-204	4.7	24

104	Use of a fluorescently labeled poly-caspase inhibitor for in vivo detection of apoptosis related to vascular-targeting agent arsenic trioxide for cancer therapy. <i>Technology in Cancer Research and Treatment</i> , 2007 , 6, 651-4	2.7	24
103	Analysis of thermal stress in cryosurgery of kidneys. <i>Journal of Biomechanical Engineering</i> , 2005 , 127, 656-61	2.1	24
102	Ice Formation in Isolated Human Hepatocytes and Human Liver Tissue. <i>ASAIO Journal</i> , 1997 , 43, 271-278	3.6	24
101	Thermo-mechanical stress analysis of cryopreservation in cryobags and the potential benefit of nanowarming. <i>Cryobiology</i> , 2017 , 76, 129-139	2.7	23
100	Cellular biophysics during freezing of rat and mouse sperm predicts post-thaw motility. <i>Biology of Reproduction</i> , 2009 , 81, 700-6	3.9	23
99	Improved cryosurgery by use of thermophysical and inflammatory adjuvants. <i>Technology in Cancer Research and Treatment</i> , 2004 , 3, 103-11	2.7	23
98	A cryoinjury model using engineered tissue equivalents for cryosurgical applications. <i>Annals of Biomedical Engineering</i> , 2005 , 33, 972-82	4.7	23
97	In Vivo Electrical Conductivity Contrast Imaging in a Mouse Model of Cancer Using High-Frequency Magnetoacoustic Tomography With Magnetic Induction (hfMAT-MI). <i>IEEE Transactions on Medical Imaging</i> , 2016 , 35, 2301-2311	11.7	22
96	Thermomechanical Stress in Cryopreservation Via Vitrification With Nanoparticle Heating as a Stress-Moderating Effect. <i>Journal of Biomechanical Engineering</i> , 2016 , 138,	2.1	22
95	Cryopreservation by vitrification: a promising approach for transplant organ banking. <i>Current Opinion in Organ Transplantation</i> , 2018 , 23, 353-360	2.5	21
94	A quantitative analysis of the thermal properties of porcine liver with glycerol at subzero and cryogenic temperatures. <i>Cryobiology</i> , 2008 , 57, 79-83	2.7	20
93	Cryothermic and hyperthermic treatments of human leiomyomata and adjacent myometrium and their implications for laparoscopic surgery. <i>Journal of Minimally Invasive Gynecology</i> , 2003 , 10, 90-8		20
92	Biomaterial scaffolds for non-invasive focal hyperthermia as a potential tool to ablate metastatic cancer cells. <i>Biomaterials</i> , 2018 , 166, 27-37	15.6	19
91	Nanowarming using Au-tipped CoFe ferromagnetic nanowires. <i>Nanoscale</i> , 2019 , 11, 14607-14615	7.7	19
90	Calorimetric measurement of water transport and intracellular ice formation during freezing in cell suspensions. <i>Cryobiology</i> , 2012 , 65, 242-55	2.7	19
89	Micro and nanoscale phenomenon in bioheat transfer. <i>Heat and Mass Transfer</i> , 2006 , 42, 955-966	2.2	19
88	Liver freezing response of the freeze-tolerant wood frog, <i>Rana sylvatica</i> , in the presence and absence of glucose. II. Mathematical modeling. <i>Cryobiology</i> , 1999 , 38, 327-38	2.7	19
87	Characterization of Laser Gold Nanowarming: A Platform for Millimeter-Scale Cryopreservation. <i>Langmuir</i> , 2019 , 35, 7364-7375	4	19

86	In vivo imaging of electrical properties of an animal tumor model with an 8-channel transceiver array at 7 T using electrical properties tomography. <i>Magnetic Resonance in Medicine</i> , 2017 , 78, 2157-2169	4.4	18
85	A simple cryopreservation method for the maintenance of cell viability and mechanical integrity of a cultured cartilage analog. <i>Cryobiology</i> , 2000 , 40, 370-5	2.7	18
84	Thermal injury prediction during cryoplasty through in vitro characterization of smooth muscle cell biophysics and viability. <i>Annals of Biomedical Engineering</i> , 2008 , 36, 86-101	4.7	17
83	Cooling rate dependent biophysical and viability response shift with attachment state in human dermal fibroblast cells. <i>Cryobiology</i> , 2011 , 63, 285-91	2.7	16
82	Significantly Improved Analytical Sensitivity of Lateral Flow Immunoassays by Using Thermal Contrast. <i>Angewandte Chemie</i> , 2012 , 124, 4434-4437	3.6	15
81	Ultrarapid Inductive Rewarming of Vitrified Biomaterials with Thin Metal Forms. <i>Annals of Biomedical Engineering</i> , 2018 , 46, 1857-1869	4.7	14
80	A quantitative analysis on the thermal properties of phosphate buffered saline with glycerol at subzero temperatures. <i>International Journal of Heat and Mass Transfer</i> , 2008 , 51, 640-649	4.9	14
79	Fourier transform infrared spectroscopy investigation of native tissue matrix modifications using a gamma irradiation process. <i>Tissue Engineering - Part C: Methods</i> , 2009 , 15, 33-40	2.9	13
78	Concentration and volume effects in thermochemical ablation in vivo: results in a porcine model. <i>International Journal of Hyperthermia</i> , 2012 , 28, 113-21	3.7	13
77	Thermal therapy of prostate tumor tissue in the dorsal skin flap chamber. <i>Microvascular Research</i> , 2002 , 64, 170-3	3.7	13
76	Multiscale Thermal Property Measurements for Biomedical Applications. <i>ACS Biomaterials Science and Engineering</i> , 2017 , 3, 2669-2691	5.5	12
75	Physical and Chemical Enhancement of and Adaptive Resistance to Irreversible Electroporation of Pancreatic Cancer. <i>Annals of Biomedical Engineering</i> , 2018 , 46, 25-36	4.7	12
74	In vivo comparison of simultaneous versus sequential injection technique for thermochemical ablation in a porcine model. <i>International Journal of Hyperthermia</i> , 2012 , 28, 105-12	3.7	12
73	A hydrophobic gel phantom for study of thermochemical ablation: initial results using a weak acid and weak base. <i>Journal of Vascular and Interventional Radiology</i> , 2009 , 20, 1352-8	2.4	12
72	A Simple Transient Method for Measurement of Thermal Conductivity of Rigid Polyurethane Foams. <i>Journal of Cellular Plastics</i> , 2008 , 44, 481-491	1.5	12
71	Cryoinjury of MCF-7 human breast cancer cells and inhibition of post-thaw recovery using TNF-alpha. <i>Technology in Cancer Research and Treatment</i> , 2007 , 6, 625-34	2.7	12
70	Ion-Mobility-Based Quantification of Surface-Coating-Dependent Binding of Serum Albumin to Superparamagnetic Iron Oxide Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 24482-90	9.5	11
69	In Vivo Imaging and Quantification of Iron Oxide Nanoparticle Uptake and Biodistribution. <i>Proceedings of SPIE</i> , 2012 , 8317,	1.7	11

68	Response of a liver tissue slab to a hyperosmotic sucrose boundary condition: microscale cellular and vascular level effects. <i>Annals of the New York Academy of Sciences</i> , 1998 , 858, 147-62	6.5	11
67	Third Prize: Comparison of radical nephrectomy, laparoscopic microwave thermotherapy, cryotherapy, and radiofrequency ablation for destruction of experimental VX-2 renal tumors in rabbits. <i>Journal of Endourology</i> , 2005 , 19, 1082-7	2.7	11
66	Development and optimization of thermal contrast amplification lateral flow immunoassays for ultrasensitive HIV p24 protein detection. <i>Microsystems and Nanoengineering</i> , 2020 , 6, 54	7.7	11
65	Irreversible electroporation augments checkpoint immunotherapy in prostate cancer and promotes tumor antigen-specific tissue-resident memory CD8+ T cells. <i>Nature Communications</i> , 2021 , 12, 3862	17.4	11
64	A Micro-Thermal Sensor for Focal Therapy Applications. <i>Scientific Reports</i> , 2016 , 6, 21395	4.9	10
63	Mapping electrical properties heterogeneity of tumor using boundary informed electrical properties tomography (BIEPT) at 7T. <i>Magnetic Resonance in Medicine</i> , 2019 , 81, 393-409	4.4	10
62	Determination of cryothermal injury thresholds in tissues impacted by cardiac cryoablation. <i>Cryobiology</i> , 2017 , 75, 125-133	2.7	9
61	From Nanowarming to Thermoregulation: New Multiscale Applications of Bioheat Transfer. <i>Annual Review of Biomedical Engineering</i> , 2018 , 20, 301-327	12	9
60	Enhancement of cell and tissue destruction in cryosurgery by use of eutectic freezing 2003 , 4954, 106		9
59	Photothermal conversion of gold nanoparticles for uniform pulsed laser warming of vitrified biomaterials. <i>Nanoscale</i> , 2020 , 12, 12346-12356	7.7	8
58	Measurement of Specific Heat and Crystallization in VS55, DP6, and M22 Cryoprotectant Systems With and Without Sucrose. <i>Biopreservation and Biobanking</i> , 2018 , 16, 270-277	2.1	8
57	In vivo detection of the effects of preconditioning on LNCaP tumors by a TNF- α nanoparticle construct using MRI. <i>NMR in Biomedicine</i> , 2014 , 27, 1063-9	4.4	7
56	Spectroscopic and calorimetric evaluation of chemically induced protein denaturation in HuH-7 liver cancer cells and impact on cell survival. <i>Technology in Cancer Research and Treatment</i> , 2012 , 11, 467-73	2.7	7
55	Histologic differences between cryothermic and hyperthermic therapies 2003 ,		7
54	Cryopreservation and Laser Nanowarming of Zebrafish Embryos Followed by Hatching and Spawning. <i>Advanced Biology</i> , 2020 , 4, e2000138	3.5	7
53	A Head and Neck Support Device for Inducing Local Hypothermia. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2014 , 8, 0110021-110029	1.3	5
52	Thermal thresholds of cardiovascular HL-1 cell destruction by cryothermal exposure. <i>Cryobiology</i> , 2017 , 78, 115-118	2.7	5
51	Biophysics of freezing in liver of the freeze-tolerant wood frog, <i>R. sylvatica</i> . <i>Annals of the New York Academy of Sciences</i> , 1998 , 858, 284-97	6.5	5

50	Imaging the distribution of iron oxide nanoparticles in hypothermic perfused tissues. <i>Magnetic Resonance in Medicine</i> , 2020 , 83, 1750-1759	4.4	5
49	Conduction Cooling and Plasmonic Heating Dramatically Increase Droplet Vitrification Volumes for Cell Cryopreservation. <i>Advanced Science</i> , 2021 , 8, 2004605	13.6	5
48	Pancreatic islet cryopreservation by vitrification achieves high viability, function, recovery and clinical scalability for transplantation.. <i>Nature Medicine</i> , 2022 ,	50.5	5
47	Improved detection of group A Streptococcus during thermal contrast amplification vs. visual reading of clinical rapid diagnostic tests. <i>Analytical Methods</i> , 2019 , 11, 2013-2017	3.2	4
46	The Role of Protein Loss and Denaturation in Determining Outcomes of Heat, Cryotherapy and Irreversible Electroporation on Cardiomyocytes. <i>Journal of Biomechanical Engineering</i> , 2018 ,	2.1	4
45	Blood protein and blood cell interactions with gold nanoparticles: the need for in vivo studies. <i>BioNanoMaterials</i> , 2013 , 14,		4
44	Real-time monitoring of thermal and mechanical response to sub-therapeutic HIFU beams in vivo 2010 ,		4
43	Frontiers in biotransport: water transport and hydration. <i>Journal of Biomechanical Engineering</i> , 2009 , 131, 074004	2.1	4
42	Assessing pH and oxygenation in cryotherapy-induced cytotoxicity and tissue response to freezing. <i>Technology in Cancer Research and Treatment</i> , 2004 , 3, 245-51	2.7	4
41	Phase Change Behavior of Biomedically Relevant Solutions 2002 , 67		4
40	Cryopreservation method for Drosophila melanogaster embryos. <i>Nature Communications</i> , 2021 , 12, 24127.4	7.4	4
39	A three-dimensional transient computational study of 532-nm laser thermal ablation in a geometrical model representing prostate tissue. <i>International Journal of Hyperthermia</i> , 2018 , 35, 568-577	7.7	4
38	Vitrification and Nanowarming of Kidneys. <i>Advanced Science</i> , 2021 , 8, e2101691	13.6	4
37	Adaptive third-order Volterra filter for detection and tracking of nonlinear oscillations in ultrasound echo data 2013 ,		3
36	An In Vitro Study on Adjuvant Enhanced Irreversible Electroporation 2012 ,		3
35	Effects of Freezing on the Mechanical Properties of Blood Vessels 2004 , 699		3
34	Effect of Thermal Properties on Heat Transfer in Cryopreservation and Cryosurgery 2002 , 7		3
33	Vitrification and Rewarming of Magnetic Nanoparticle-Loaded Rat Hearts. <i>Advanced Materials Technologies</i> , 2100873	6.8	3

32	The impact of data selection and fitting on SAR estimation for magnetic nanoparticle heating. <i>International Journal of Hyperthermia</i> , 2020 , 37, 100-107	3.7	3
31	Optimizing Integrated Electrode Design for Irreversible Electroporation of Implanted Polymer Scaffolds. <i>Annals of Biomedical Engineering</i> , 2020 , 48, 1230-1240	4.7	3
30	Liver Cryopreservation for Regenerative Medicine Applications. <i>Regenerative Engineering and Translational Medicine</i> , 2021 , 7, 57-65	2.4	3
29	fM-aM Detection of the SARS-CoV-2 Antigen by Advanced Lateral Flow Immunoassay Based on Gold Nanospheres.. <i>ACS Applied Nano Materials</i> , 2021 , 4, 13826-13837	5.6	3
28	Multi-scale Thermal Conductivity Measurements for Cryobiological Applications. <i>Frontiers in Nanobiomedical Research</i> , 2016 , 125-171		2
27	Dynamic imaging of tumor perfusion using contrast enhanced ultrasound: In vivo results 2014 ,		2
26	Thermal Conductivity Measurements of Thin Biological Tissues Using a Microfabricated 3-Omega Sensor. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2013 , 7,	1.3	2
25	Irreversible Electroporation of Cardiovascular Cells and Tissues. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2013 , 7,	1.3	2
24	Mechanisms of Injury Caused by in Vivo Freezing 2004 , 455-481		2
23	Cryogenic heat and mass transfer in biomedical applications 2002 ,		2
22	Diffusion Limited Cryopreservation of Tissue with Radiofrequency Heated Metal Forms. <i>Advanced Healthcare Materials</i> , 2020 , 9, e2000796	10.1	2
21	Improved Influenza Diagnostics through Thermal Contrast Amplification. <i>Diagnostics</i> , 2021 , 11,	3.8	2
20	Aggregation affects optical properties and photothermal heating of gold nanospheres. <i>Scientific Reports</i> , 2021 , 11, 898	4.9	2
19	Journal of Biomechanical Engineering Legacy Paper 2018. <i>Journal of Biomechanical Engineering</i> , 2019 ,	2.1	1
18	Thermal Properties of Porcine and Human Biological Systems 2018 , 2279-2304		1
17	An Improved Cryosurgical Probe Testbed Based on Convective Exchange Boundary Conditions 2012 ,		1
16	Measurements of the Thermal Conductivity of Sub-Millimeter Biological Tissues 2012 ,		1
15	Tumor necrosis factor-alpha induced enhancement of cryosurgery 2008 ,		1

14	Thermal Fingerprinting of Cells Using FTIR 2007 , 87		1
13	Heme Oxygenase-1: A Potential Modulator of Inflammation and Vaso-Occlusion in Sickle Cell Disease.. <i>Blood</i> , 2004 , 104, 365-365	2.2	1
12	A Microthermal Sensor for Cryoablation Balloons. <i>Journal of Biomechanical Engineering</i> , 2020 , 142,	2.1	1
11	Kinetics of nonisothermal phase change with arbitrary temperature-time history and initial transformed phase distributions. <i>Journal of Chemical Physics</i> , 2021 , 155, 211101	3.9	1
10	Thermal Properties of Porcine and Human Biological Systems 2017 , 1-26		1
9	Thermal conductivity of cryoprotective agents loaded with nanoparticles, with application to recovery of preserved tissues and organs from cryogenic storage. <i>PLoS ONE</i> , 2020 , 15, e0238941	3.7	1
8	Characterization of Miniature Probes for Cryosurgery, Thermal Ablation, and Irreversible Electroporation on Small Animals. <i>Advanced Therapeutics</i> , 2100212	4.9	1
7	Iron oxide-loaded polymer scaffolds for non-invasive hyperthermic treatment of infiltrated cells. <i>AIChE Journal</i> , 2020 , 66, e17001	3.6	0
6	Bioapplications of magnetic nanowires: barcodes, biocomposites, heaters. <i>IEEE Transactions on Magnetics</i> , 2022 , 1-1	2	0
5	Micro- and Nanoscale Calorimetry for Biomedical Applications 2018 , 393-431		
4	Foreword: Cryosurgery. <i>Technology in Cancer Research and Treatment</i> , 2004 , 3, 93-93	2.7	
3	402.3: Long-term Preservation of Isolated Human, Mouse, Porcine Islets and Human Stem Cell Derived Beta Cells (HUES-8 Cell Lines) Using a High Throughput Vitrification-Rewarming Modified Cryomesh Technique to Successfully Cure Diabetes in a Mouse With Transplantation.. <i>Transplantation</i> , 2021 , 105, 627-628	1.8	
2	The Effect of Cold Temperatures on Biological Systems 2016 , 19-36		
1	Sperm cryopreservation, in vitro fertilization, and embryo freezing 2022 , 157-181		