John C Bischof

List of Publications by Year in Descending Order

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	Sperm cryopreservation, in vitro fertilization, and embryo freezing **2022**, 157-181		
192	Bioapplications of magnetic nanowires: barcodes, biocomposites, heaters. *IEEE Transactions on Magnetics*, **2022**, 1-1	2	0
191	Pancreatic islet cryopreservation by vitrification achieves high viability, function, recovery and clinical scalability for transplantation.. *Nature Medicine*, **2022**,	50.5	5
190	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.. *Transplantation*, **2021**, 105, S27-S28	1.8	
189	Kinetics of nonisothermal phase change with arbitrary temperature-time history and initial transformed phase distributions. *Journal of Chemical Physics*, **2021**, 155, 211101	3.9	1
188	Improved Influenza Diagnostics through Thermal Contrast Amplification. *Diagnostics*, **2021**, 11,	3.8	2
187	Cryopreservation method for Drosophila melanogaster embryos. *Nature Communications*, **2021**, 12, 2412	17.4	4
186	Conduction Cooling and Plasmonic Heating Dramatically Increase Droplet Vitrification Volumes for Cell Cryopreservation. *Advanced Science*, **2021**, 8, 2004605	13.6	5
185	Irreversible electroporation augments checkpoint immunotherapy in prostate cancer and promotes tumor antigen-specific tissue-resident memory CD8+ T cells. *Nature Communications*, **2021**, 12, 3862	17.4	11
184	Liver Cryopreservation for Regenerative Medicine Applications. *Regenerative Engineering and Translational Medicine*, **2021**, 7, 57-65	2.4	3
183	Aggregation affects optical properties and photothermal heating of gold nanospheres. *Scientific Reports*, **2021**, 11, 898	4.9	2
182	Ultrasensitive and Highly Specific Lateral Flow Assays for Point-of-Care Diagnosis. *ACS Nano*, **2021**, 15, 3593-3611	16.7	73
181	Vitrification and Nanowarming of Kidneys. *Advanced Science*, **2021**, 8, e2101691	13.6	4
180	fM-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	5.6	3
179	Photothermal conversion of gold nanoparticles for uniform pulsed laser warming of vitrified biomaterials. *Nanoscale*, **2020**, 12, 12346-12356	7.7	8
178	A Microthermal Sensor for Cryoablation Balloons. *Journal of Biomechanical Engineering*, **2020**, 142,	2.1	1
177	The impact of data selection and fitting on SAR estimation for magnetic nanoparticle heating. *International Journal of Hyperthermia*, **2020**, 37, 100-107	3.7	3

176	Optimizing Integrated Electrode Design for Irreversible Electroporation of Implanted Polymer Scaffolds. *Annals of Biomedical Engineering*, **2020**, 48, 1230-1240	4.7	3
175	Preparation of Scalable Silica-Coated Iron Oxide Nanoparticles for Nanowarming. *Advanced Science*, **2020**, 7, 1901624	13.6	28
174	Imaging the distribution of iron oxide nanoparticles in hypothermic perfused tissues. *Magnetic Resonance in Medicine*, **2020**, 83, 1750-1759	4.4	5
173	Cryopreservation and Laser Nanowarming of Zebrafish Embryos Followed by Hatching and Spawning. *Advanced Biology*, **2020**, 4, e2000138	3.5	7
172	Iron oxide-loaded polymer scaffolds for non-invasive hyperthermic treatment of infiltrated cells. *AICHE Journal*, **2020**, 66, e17001	3.6	0
171	Development and optimization of thermal contrast amplification lateral flow immunoassays for ultrasensitive HIV p24 protein detection. *Microsystems and Nanoengineering*, **2020**, 6, 54	7.7	11
170	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	3.7	1
169	Diffusion Limited Cryopreservation of Tissue with Radiofrequency Heated Metal Forms. *Advanced Healthcare Materials*, **2020**, 9, e2000796	10.1	2
168	Engineering T cell response to cancer antigens by choice of focal therapeutic conditions. *International Journal of Hyperthermia*, **2019**, 36, 130-138	3.7	35
167	Improved detection of group A Streptococcus during thermal contrast amplification vs. visual reading of clinical rapid diagnostic tests. *Analytical Methods*, **2019**, 11, 2013-2017	3.2	4
166	Journal of Biomechanical Engineering Legacy Paper 2018. *Journal of Biomechanical Engineering*, **2019**,	2.1	1
165	Nanowarming using Au-tipped CoFe ferromagnetic nanowires. *Nanoscale*, **2019**, 11, 14607-14615	7.7	19
164	Characterization of Laser Gold Nanowarming: A Platform for Millimeter-Scale Cryopreservation. *Langmuir*, **2019**, 35, 7364-7375	4	19
163	Mapping electrical properties heterogeneity of tumor using boundary informed electrical properties tomography (BIEPT) at 7T. *Magnetic Resonance in Medicine*, **2019**, 81, 393-409	4.4	10
162	Biomaterial scaffolds for non-invasive focal hyperthermia as a potential tool to ablate metastatic cancer cells. *Biomaterials*, **2018**, 166, 27-37	15.6	19
161	Cryopreservation by vitrification: a promising approach for transplant organ banking. *Current Opinion in Organ Transplantation*, **2018**, 23, 353-360	2.5	21
160	Micro- and Nanoscale Calorimetry for Biomedical Applications **2018**, 393-431		
159	The Role of Protein Loss and Denaturation in Determining Outcomes of Heat, Cryotherapy and Irreversible Electroporation on Cardiomyocytes. *Journal of Biomechanical Engineering*, **2018**,	2.1	4

158	Physical and Chemical Enhancement of and Adaptive Resistance to Irreversible Electroporation of Pancreatic Cancer. *Annals of Biomedical Engineering*, **2018**, 46, 25-36	4.7	12
157	Measurement of Specific Heat and Crystallization in VS55, DP6, and M22 Cryoprotectant Systems With and Without Sucrose. *Biopreservation and Biobanking*, **2018**, 16, 270-277	2.1	8
156	Ultrarapid Inductive Rewarming of Vitrified Biomaterials with Thin Metal Forms. *Annals of Biomedical Engineering*, **2018**, 46, 1857-1869	4.7	14
155	Thermal Properties of Porcine and Human Biological Systems **2018**, 2279-2304		1
154	From Nanowarming to Thermoregulation: New Multiscale Applications of Bioheat Transfer. *Annual Review of Biomedical Engineering*, **2018**, 20, 301-327	12	9
153	Successful cryopreservation of coral larvae using vitrification and laser warming. *Scientific Reports*, **2018**, 8, 15714	4.9	33
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	3.7	4
151	In vivo imaging of electrical properties of an animal tumor model with an 8-channel transceiver array at 7 T using electrical properties tomography. *Magnetic Resonance in Medicine*, **2017**, 78, 2157-2169	4.4	18
150	Thermo-mechanical stress analysis of cryopreservation in cryobags and the potential benefit of nanowarming. *Cryobiology*, **2017**, 76, 129-139	2.7	23
149	Improved tissue cryopreservation using inductive heating of magnetic nanoparticles. *Science Translational Medicine*, **2017**, 9,	17.5	135
148	The promise of organ and tissue preservation to transform medicine. *Nature Biotechnology*, **2017**, 35, 530-542	44.5	246
147	Determination of cryothermal injury thresholds in tissues impacted by cardiac cryoablation. *Cryobiology*, **2017**, 75, 125-133	2.7	9
146	Multiscale Thermal Property Measurements for Biomedical Applications. *ACS Biomaterials Science and Engineering*, **2017**, 3, 2669-2691	5.5	12
145	The Role of Nanoparticle Design in Determining Analytical Performance of Lateral Flow Immunoassays. *Nano Letters*, **2017**, 17, 7207-7212	11.5	99
144	Gold Nanorod Induced Warming of Embryos from the Cryogenic State Enhances Viability. *ACS Nano* , **2017**, 11, 7869-7878	16.7	66
143	Thermal thresholds of cardiovascular HL-1 cell destruction by cryothermal exposure. *Cryobiology*, **2017**, 78, 115-118	2.7	5
142	Quantification and biodistribution of iron oxide nanoparticles in the primary clearance organs of mice using T contrast for heating. *Magnetic Resonance in Medicine*, **2017**, 78, 702-712	4.4	29
141	Thermal Properties of Porcine and Human Biological Systems **2017**, 1-26		1

140	Ion-Mobility-Based Quantification of Surface-Coating-Dependent Binding of Serum Albumin to Superparamagnetic Iron Oxide Nanoparticles. *ACS Applied Materials & Interfaces*, **2016**, 8, 24482-90	9.5	11
139	Quantifying intra- and extracellular aggregation of iron oxide nanoparticles and its influence on specific absorption rate. *Nanoscale*, **2016**, 8, 16053-64	7.7	46
138	Thermal Contrast Amplification Reader Yielding 8-Fold Analytical Improvement for Disease Detection with Lateral Flow Assays. *Analytical Chemistry*, **2016**, 88, 11774-11782	7.8	61
137	A Micro-Thermal Sensor for Focal Therapy Applications. *Scientific Reports*, **2016**, 6, 21395	4.9	10
136	Quantitative Comparison of Photothermal Heat Generation between Gold Nanospheres and Nanorods. *Scientific Reports*, **2016**, 6, 29836	4.9	95
135	Multi-scale Thermal Conductivity Measurements for Cryobiological Applications. *Frontiers in Nanobiomedical Research*, **2016**, 125-171		2
134	In Vivo 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	11.7	22
133	Thermomechanical Stress in Cryopreservation Via Vitrification With Nanoparticle Heating as a Stress-Moderating Effect. *Journal of Biomechanical Engineering*, **2016**, 138,	2.1	22
132	Predictable Heating and Positive MRI Contrast from a Mesoporous Silica-Coated Iron Oxide Nanoparticle. *Molecular Pharmaceutics*, **2016**, 13, 2172-83	5.6	59
131	The Grand Challenges of Organ Banking: Proceedings from the first global summit on complex tissue cryopreservation. *Cryobiology*, **2016**, 72, 169-82	2.7	79
130	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	6	26
129	The Effect of Cold Temperatures on Biological Systems **2016**, 19-36		
128	Identification of the biologically active liquid chemistry induced by a nonthermal atmospheric pressure plasma jet. *Biointerphases*, **2015**, 10, 029518	1.8	184
127	Reusable bi-directional 3ω sensor to measure thermal conductivity of 100-μm thick biological tissues. *Review of Scientific Instruments*, **2015**, 86, 014905	1.7	32
126	Pulse timing during irreversible electroporation achieves enhanced destruction in a hindlimb model of cancer. *Annals of Biomedical Engineering*, **2015**, 43, 887-95	4.7	24
125	A review of basic to clinical studies of irreversible electroporation therapy. *IEEE Transactions on Biomedical Engineering*, **2015**, 62, 4-20	5	214
124	Evaluating Broader Impacts of Nanoscale Thermal Transport Research. *Nanoscale and Microscale Thermophysical Engineering*, **2015**, 19, 127-165	3.7	60
123	Dynamic imaging of tumor perfusion using contrast enhanced ultrasound: In vivo results **2014**,		2

122	Membrane-targeting approaches for enhanced cancer cell destruction with irreversible electroporation. *Annals of Biomedical Engineering*, **2014**, 42, 193-204	4.7	24
121	A Head and Neck Support Device for Inducing Local Hypothermia. *Journal of Medical Devices, Transactions of the ASME*, **2014**, 8, 0110021-110029	1.3	5
120	Accounting for biological aggregation in heating and imaging of magnetic nanoparticles. *Technology*, **2014**, 2, 214-228	3	88
119	RF heating of magnetic nanoparticles improves the thawing of cryopreserved biomaterials **2014**, 02, 229-242		60
118	Correlated parameter fit of arrhenius model for thermal denaturation of proteins and cells. *Annals of Biomedical Engineering*, **2014**, 42, 2392-404	4.7	40
117	Multisite validation of cryptococcal antigen lateral flow assay and quantification by laser thermal contrast. *Emerging Infectious Diseases*, **2014**, 20, 45-53	10.2	193
116	In vivo detection of the effects of preconditioning on LNCaP tumors by a TNF- nanoparticle construct using MRI. *NMR in Biomedicine*, **2014**, 27, 1063-9	4.4	7
115	Quantifying iron-oxide nanoparticles at high concentration based on longitudinal relaxation using a three-dimensional SWIFT Look-Locker sequence. *Magnetic Resonance in Medicine*, **2014**, 71, 1982-8	4.4	40
114	Blood protein and blood cell interactions with gold nanoparticles: the need for in vivo studies. *BioNanoMaterials*, **2013**, 14,		4
113	Irreversible electroporation: an in vivo study with dorsal skin fold chamber. *Annals of Biomedical Engineering*, **2013**, 41, 619-29	4.7	35
112	Optimizing magnetic nanoparticle based thermal therapies within the physical limits of heating. *Annals of Biomedical Engineering*, **2013**, 41, 78-88	4.7	49
111	Nanoparticle delivered vascular disrupting agents (VDAs): use of TNF-alpha conjugated gold nanoparticles for multimodal cancer therapy. *Molecular Pharmaceutics*, **2013**, 10, 1683-94	5.6	60
110	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. *Journal of Heat Transfer*, **2013**, 135,	1.8	34
109	Methods for characterizing convective cryoprobe heat transfer in ultrasound gel phantoms. *Journal of Biomechanical Engineering*, **2013**, 135, 021002	2.1	28
108	Adaptive third-order Volterra filter for detection and tracking of nonlinear oscillations in ultrasound echo data **2013**,		3
107	Thermal Conductivity Measurements of Thin Biological Tissues Using a Microfabricated 3-Omega Sensor. *Journal of Medical Devices, Transactions of the ASME*, **2013**, 7,	1.3	2
106	Irreversible Electroporation of Cardiovascular Cells and Tissues. *Journal of Medical Devices, Transactions of the ASME*, **2013**, 7,	1.3	2
105	Calorimetric measurement of water transport and intracellular ice formation during freezing in cell suspensions. *Cryobiology*, **2012**, 65, 242-55	2.7	19

104	In vivo comparison of simultaneous versus sequential injection technique for thermochemical ablation in a porcine model. *International Journal of Hyperthermia*, **2012**, 28, 105-12	3.7	12
103	Blood-nanoparticle interactions and in vivo biodistribution: impact of surface PEG and ligand properties. *Molecular Pharmaceutics*, **2012**, 9, 2146-55	5.6	105
102	Thermophysical and biological responses of gold nanoparticle laser heating. *Chemical Society Reviews*, **2012**, 41, 1191-217	58.5	408
101	Significantly Improved Analytical Sensitivity of Lateral Flow Immunoassays by Using Thermal Contrast. *Angewandte Chemie*, **2012**, 124, 4434-4437	3.6	15
100	Significantly improved analytical sensitivity of lateral flow immunoassays by using thermal contrast. *Angewandte Chemie - International Edition*, **2012**, 51, 4358-61	16.4	122
99	In Vivo Imaging and Quantification of Iron Oxide Nanoparticle Uptake and Biodistribution. *Proceedings of SPIE*, **2012**, 8317,	1.7	11
98	Concentration and volume effects in thermochemical ablation in vivo: results in a porcine model. *International Journal of Hyperthermia*, **2012**, 28, 113-21	3.7	13
97	An Improved Cryosurgical Probe Testbed Based on Convective Exchange Boundary Conditions **2012** ,		1
96	An In Vitro Study on Adjuvant Enhanced Irreversible Electroporation **2012**,		3
95	Measurements of the Thermal Conductivity of Sub-Millimeter Biological Tissues **2012**,		1
94	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, 467-73	2.7	7
93	Cellular uptake and nanoscale localization of gold nanoparticles in cancer using label-free confocal Raman microscopy. *Molecular Pharmaceutics*, **2011**, 8, 176-84	5.6	64
92	Cooling rate dependent biophysical and viability response shift with attachment state in human dermal fibroblast cells. *Cryobiology*, **2011**, 63, 285-91	2.7	16
91	Nanoparticle preconditioning for enhanced thermal therapies in cancer. *Nanomedicine*, **2011**, 6, 545-63	5.6	50
90	Real-time monitoring of thermal and mechanical response to sub-therapeutic HIFU beams in vivo **2010**,		4
89	Spatial distribution of the state of water in frozen mammalian cells. *Biophysical Journal*, **2010**, 99, 2453-9	2.9	40
88	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	2.7	85
87	Pre-conditioning cryosurgery: cellular and molecular mechanisms and dynamics of TNF-enhanced cryotherapy in an in vivo prostate cancer model system. *Cryobiology*, **2010**, 61, 280-8	2.7	31

86	Use of tumor necrosis factor-alpha-coated gold nanoparticles to enhance radiofrequency ablation in a translational model of renal tumors. *Urology*, **2010**, 76, 494-8	1.6	29
85	Freeze-thaw induced biomechanical changes in arteries: role of collagen matrix and smooth muscle cells. *Annals of Biomedical Engineering*, **2010**, 38, 694-706	4.7	45
84	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	2.1	40
83	Adjuvant approaches to enhance cryosurgery. *Journal of Biomechanical Engineering*, **2009**, 131, 074003	2.1	50
82	Fourier transform infrared spectroscopy investigation of native tissue matrix modifications using a gamma irradiation process. *Tissue Engineering - Part C: Methods*, **2009**, 15, 33-40	2.9	13
81	Cellular biophysics during freezing of rat and mouse sperm predicts post-thaw motility. *Biology of Reproduction*, **2009**, 81, 700-6	3.9	23
80	Biodistribution of TNF-alpha-coated gold nanoparticles in an in vivo model system. *Nanomedicine*, **2009**, 4, 401-10	5.6	146
79	Membrane hydration correlates to cellular biophysics during freezing in mammalian cells. *Biochimica Et Biophysica Acta - Biomembranes*, **2009**, 1788, 945-53	3.8	42
78	Frontiers in biotransport: water transport and hydration. *Journal of Biomechanical Engineering*, **2009**, 131, 074004	2.1	4
77	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, 1352-8	2.4	12
76	Freezing-induced phase separation and spatial microheterogeneity in protein solutions. *Journal of Physical Chemistry B*, **2009**, 113, 10081-7	3.4	71
75	A quantitative analysis of the thermal properties of porcine liver with glycerol at subzero and cryogenic temperatures. *Cryobiology*, **2008**, 57, 79-83	2.7	20
74	A Simple Transient Method for Measurement of Thermal Conductivity of Rigid Polyurethane Foams. *Journal of Cellular Plastics*, **2008**, 44, 481-491	1.5	12
73	Tumor necrosis factor-alpha-induced accentuation in cryoinjury: mechanisms in vitro and in vivo. *Molecular Cancer Therapeutics*, **2008**, 7, 2547-55	6.1	29
72	Tumor necrosis factor-alpha induced enhancement of cryosurgery **2008**,		1
71	Thermal injury prediction during cryoplasty through in vitro characterization of smooth muscle cell biophysics and viability. *Annals of Biomedical Engineering*, **2008**, 36, 86-101	4.7	17
70	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	4.9	14
69	Use of X-ray tomography to map crystalline and amorphous phases in frozen biomaterials. *Annals of Biomedical Engineering*, **2007**, 35, 292-304	4.7	28

68	Cryoinjury of MCF-7 human breast cancer cells and inhibition of post-thaw recovery using TNF-alpha. *Technology in Cancer Research and Treatment*, **2007**, 6, 625-34	2.7	12
67	Use of a fluorescently labeled poly-caspase inhibitor for in vivo detection of apoptosis related to vascular-targeting agent arsenic trioxide for cancer therapy. *Technology in Cancer Research and Treatment*, **2007**, 6, 651-4	2.7	24
66	TNF-alpha-based accentuation in cryoinjury--dose, delivery, and response. *Molecular Cancer Therapeutics*, **2007**, 6, 2039-47	6.1	67
65	Thermal Fingerprinting of Cells Using FTIR **2007**, 87		1
64	Effects of freezing on membranes and proteins in LNCaP prostate tumor cells. *Biochimica Et Biophysica Acta - Biomembranes*, **2007**, 1768, 728-36	3.8	69
63	Cellular level loading and heating of superparamagnetic iron oxide nanoparticles. *Langmuir*, **2007**, 23, 12329-36	4	77
62	Nanotherapeutics for enhancing thermal therapy of cancer. *International Journal of Hyperthermia*, **2007**, 23, 501-11	3.7	51
61	Micro and nanoscale phenomenon in bioheat transfer. *Heat and Mass Transfer*, **2006**, 42, 955-966	2.2	19
60	Enhancement of tumor thermal therapy using gold nanoparticle-assisted tumor necrosis factor-alpha delivery. *Molecular Cancer Therapeutics*, **2006**, 5, 1014-20	6.1	222
59	A quantitative analysis on latent heat of an aqueous binary mixture. *Cryobiology*, **2006**, 52, 146-51	2.7	28
58	Water transport and IIF parameters for a connective tissue equivalent. *Cryobiology*, **2006**, 52, 62-73	2.7	35
57	Effects of freezing and cryopreservation on the mechanical properties of arteries. *Annals of Biomedical Engineering*, **2006**, 34, 823-32	4.7	99
56	Analysis of thermal stress in cryosurgery of kidneys. *Journal of Biomechanical Engineering*, **2005**, 127, 656-61	2.1	24
55	In vitro model systems for evaluation of smooth muscle cell response to cryoplasty. *Cryobiology*, **2005**, 50, 162-73	2.7	35
54	In vitrocharacterization of movement, heating and visualization of magnetic nanoparticles for biomedical applications. *Nanotechnology*, **2005**, 16, 1221-1233	3.4	141
53	Thermal stability of proteins. *Annals of the New York Academy of Sciences*, **2005**, 1066, 12-33	6.5	174
52	Polynitroxyl albumin inhibits inflammation and vasoocclusion in transgenic sickle mice. *Translational Research*, **2005**, 145, 204-11		35
51	The kinetics of thermal injury in human renal carcinoma cells. *Annals of Biomedical Engineering*, **2005**, 33, 502-10	4.7	48

50	A cryoinjury model using engineered tissue equivalents for cryosurgical applications. *Annals of Biomedical Engineering*, **2005**, 33, 972-82	4.7	23
49	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, 1082-7	2.7	11
48	Effects of Freezing on the Mechanical Properties of Blood Vessels **2004**, 699		3
47	In vitro assessment of the efficacy of thermal therapy in human benign prostatic hyperplasia. *International Journal of Hyperthermia*, **2004**, 20, 421-39	3.7	56
46	Engineering Challenges in Tissue Preservation. *Cell Preservation Technology*, **2004**, 2, 91-112		32
45	Foreword: Cryosurgery. *Technology in Cancer Research and Treatment*, **2004**, 3, 93-93	2.7	
44	Improved cryosurgery by use of thermophysical and inflammatory adjuvants. *Technology in Cancer Research and Treatment*, **2004**, 3, 103-11	2.7	23
43	Assessing pH and oxygenation in cryotherapy-induced cytotoxicity and tissue response to freezing. *Technology in Cancer Research and Treatment*, **2004**, 3, 245-51	2.7	4
42	Thermodynamic nonequilibrium phase change behavior and thermal properties of biological solutions for cryobiology applications. *Journal of Biomechanical Engineering*, **2004**, 126, 196-203	2.1	26
41	Cryopreservation of collagen-based tissue equivalents. II. Improved freezing in the presence of cryoprotective agents. *Tissue Engineering*, **2004**, 10, 23-32		30
40	In vitro thermal therapy of AT-1 Dunning prostate tumours. *International Journal of Hyperthermia*, **2004**, 20, 73-92	3.7	43
39	In situ thermal denaturation of proteins in dunning AT-1 prostate cancer cells: implication for hyperthermic cell injury. *Annals of Biomedical Engineering*, **2004**, 32, 1384-98	4.7	71
38	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, 117-25	7.1	54
37	Direct cell injury associated with eutectic crystallization during freezing. *Cryobiology*, **2004**, 48, 8-21	2.7	83
36	Pre-treatment inflammation induced by TNF-alpha augments cryosurgical injury on human prostate cancer. *Cryobiology*, **2004**, 49, 10-27	2.7	44
35	Heme Oxygenase-1: A Potential Modulator of Inflammation and Vaso-Occlusion in Sickle Cell Disease.. *Blood*, **2004**, 104, 365-365	2.2	1
34	Mechanisms of Injury Caused by in Vivo Freezing **2004**, 455-481		2
33	Histologic differences between cryothermic and hyperthermic therapies **2003**,		7

32	Enhancement of cell and tissue destruction in cryosurgery by use of eutectic freezing **2003**, 4954, 106		9
31	Transgenic sickle mice have vascular inflammation. *Blood*, **2003**, 101, 3953-9	2.2	167
30	Cryothermic and hyperthermic treatments of human leiomyomata and adjacent myometrium and their implications for laparoscopic surgery. *Journal of Minimally Invasive Gynecology*, **2003**, 10, 90-8		20
29	Cryopreservation of collagen-based tissue equivalents. I. Effect of freezing in the absence of cryoprotective agents. *Tissue Engineering*, **2003**, 9, 1089-100		32
28	Mechanical property characterization of mouse zona pellucida. *IEEE Transactions on Nanobioscience*, **2003**, 2, 279-86	3.4	226
27	Quantification of temperature and injury response in thermal therapy and cryosurgery. *Critical Reviews in Biomedical Engineering*, **2003**, 31, 355-422	1.1	129
26	Measurement and numerical analysis of freezing in solutions enclosed in a small container. *International Journal of Heat and Mass Transfer*, **2002**, 45, 1915-1931	4.9	31
25	Effect of Microscale Mass Transport and Phase Change on Numerical Prediction of Freezing in Biological Tissues. *Journal of Heat Transfer*, **2002**, 124, 365-374	1.8	38
24	Phase Change Behavior of Biomedically Relevant Solutions **2002**, 67		4
23	Effect of Thermal Properties on Heat Transfer in Cryopreservation and Cryosurgery **2002**, 7		3
22	Thermal therapy of prostate tumor tissue in the dorsal skin flap chamber. *Microvascular Research*, **2002**, 64, 170-3	3.7	13
21	The cryobiology of cryosurgical injury. *Urology*, **2002**, 60, 40-9	1.6	453
20	Cryosurgical changes in the porcine kidney: histologic analysis with thermal history correlation. *Cryobiology*, **2002**, 45, 167-82	2.7	72
19	Cryogenic heat and mass transfer in biomedical applications **2002**,		2
18	Cryosurgery of normal and tumor tissue in the dorsal skin flap chamber: Part II--injury response. *Journal of Biomechanical Engineering*, **2001**, 123, 310-6	2.1	36
17	Cryosurgery of normal and tumor tissue in the dorsal skin flap chamber: Part I--thermal response. *Journal of Biomechanical Engineering*, **2001**, 123, 301-9	2.1	61
16	Investigation of the mechanism and the effect of cryoimmunology in the Copenhagen rat. *Cryobiology*, **2001**, 42, 59-68	2.7	54
15	Microscopic and calorimetric assessment of freezing processes in uterine fibroid tumor tissue. *Cryobiology*, **2001**, 42, 225-43	2.7	35

14	Measurement and prediction of thermal behavior and acute assessment of injury in a pig model of renal cryosurgery. *Journal of Endourology*, **2001**, 15, 193-7	2.7	25
13	Supraphysiological thermal injury in Dunning AT-1 prostate tumor cells. *Journal of Biomechanical Engineering*, **2000**, 122, 51-9	2.1	55
12	A simple cryopreservation method for the maintenance of cell viability and mechanical integrity of a cultured cartilage analog. *Cryobiology*, **2000**, 40, 370-5	2.7	18
11	Quantitative measurement and prediction of biophysical response during freezing in tissues. *Annual Review of Biomedical Engineering*, **2000**, 2, 257-88	12	54
10	Subzero water permeability parameters of mouse spermatozoa in the presence of extracellular ice and cryoprotective agents. *Biology of Reproduction*, **1999**, 61, 764-75	3.9	68
9	Liver freezing response of the freeze-tolerant wood frog, Rana sylvatica, in the presence and absence of glucose. I. Experimental measures. *Cryobiology*, **1999**, 38, 310-26	2.7	25
8	Liver freezing response of the freeze-tolerant wood frog, Rana sylvatica, in the presence and absence of glucose. II. Mathematical modeling. *Cryobiology*, **1999**, 38, 327-38	2.7	19
7	A parametric study of freezing injury in AT-1 rat prostate tumor cells. *Cryobiology*, **1999**, 39, 13-28	2.7	53
6	Response of a liver tissue slab to a hyperosmotic sucrose boundary condition: microscale cellular and vascular level effects. *Annals of the New York Academy of Sciences*, **1998**, 858, 147-62	6.5	11
5	Biophysics of freezing in liver of the freeze-tolerant wood frog, R. sylvatica. *Annals of the New York Academy of Sciences*, **1998**, 858, 284-97	6.5	5
4	Measurement of water transport during freezing in cell suspensions using a differential scanning calorimeter. *Cryobiology*, **1998**, 36, 124-55	2.7	96
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