

Christopher Brace

List of Publications by Year in Descending Order

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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.

114
papers

6,123
citations

39
h-index

77
g-index

122
ext. papers

7,185
ext. citations

4.9
avg, IF

6.2
L-index

#	Paper	IF	Citations
114	Split-bolus CT urography after microwave ablation of renal cell carcinoma improves image quality and reduces radiation exposure.. <i>Abdominal Radiology</i> , 2022 , 1	3	
113	Contrast-enhanced CT immediately following percutaneous microwave ablation of cT1a renal cell carcinoma: Optimizing cancer outcomes.. <i>Abdominal Radiology</i> , 2022 , 1	3	1
112	Feature-based automated segmentation of ablation zones by fuzzy c-mean clustering during low-dose computed tomography. <i>Medical Physics</i> , 2021 , 48, 703-714	4.4	4
111	Microwave ablation of the liver in a live porcine model: the impact of power, time and total energy on ablation zone size and shape. <i>International Journal of Hyperthermia</i> , 2020 , 37, 668-676	3.7	5
110	Heating technology for malignant tumors: a review. <i>International Journal of Hyperthermia</i> , 2020 , 37, 711-741	3.7	79
109	Computed Tomography-Based Modeling of Water Vapor-Induced Changes in Permittivity During Microwave Ablation. <i>IEEE Transactions on Biomedical Engineering</i> , 2020 , 67, 2427-2433	5	1
108	An Analysis of Open-Ended Coaxial Probe Sensitivity to Heterogeneous Media. <i>Sensors</i> , 2020 , 20,	3.8	5
107	Radiofrequency and microwave ablation in a porcine liver model: non-contrast CT and ultrasound radiologic-pathologic correlation. <i>International Journal of Hyperthermia</i> , 2020 , 37, 799-807	3.7	6
106	Development of Water Content Dependent Tissue Dielectric Property Models. <i>IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology</i> , 2019 , 3, 105-110	2.8	4
105	Ultrasound-Guided Microwave Ablation for the Management of Inguinal Neuralgia: A Preliminary Study with 1-Year Follow-up. <i>Journal of Vascular and Interventional Radiology</i> , 2019 , 30, 242-248	2.4	11
104	Quantitative 4D-Digital Subtraction Angiography to Assess Changes in Hepatic Arterial Flow during Transarterial Embolization: A Feasibility Study in a Swine Model. <i>Journal of Vascular and Interventional Radiology</i> , 2019 , 30, 1286-1292	2.4	4
103	Two-dimensional ultrasound-computed tomography image registration for monitoring percutaneous hepatic intervention. <i>Medical Physics</i> , 2019 , 46, 2600-2609	4.4	5
102	Percutaneous Microwave Tumor Ablation Is Safe in Patients with Cardiovascular Implantable Electronic Devices: A Single-Institutional Retrospective Review. <i>Journal of Vascular and Interventional Radiology</i> , 2019 , 30, 396-400	2.4	2
101	Evaluation of tissue deformation during radiofrequency and microwave ablation procedures: Influence of output energy delivery. <i>Medical Physics</i> , 2019 , 46, 4127-4134	4.4	14
100	Combination transarterial chemoembolization and microwave ablation improves local tumor control for 3- to 5-cm hepatocellular carcinoma when compared with transarterial chemoembolization alone. <i>Abdominal Radiology</i> , 2018 , 43, 2497-2504	3	19
99	Analysis of microwave ablation antenna optimization techniques. <i>International Journal of RF and Microwave Computer-Aided Engineering</i> , 2018 , 28, e21224	1.5	13
98	Quantifying optical properties with visible and near-infrared optical coherence tomography to visualize esophageal microwave ablation zones. <i>Biomedical Optics Express</i> , 2018 , 9, 1648-1663	3.5	4

97	Development of a Tissue Dielectric Properties Model Based on Maxwell-Fricke Mixture Theory 2018,		1
96	Comparison of Conventional and Cone-Beam CT for Monitoring and Assessing Pulmonary Microwave Ablation in a Porcine Model. <i>Journal of Vascular and Interventional Radiology</i> , 2018 , 29, 1447-1454	2.4	6
95	Combination Therapies: Quantifying the Effects of Transarterial Embolization on Microwave Ablation Zones. <i>Journal of Vascular and Interventional Radiology</i> , 2018 , 29, 1050-1056	2.4	5
94	MR visible localization device for radiographic-pathologic correlation of surgical specimens. <i>Magnetic Resonance Imaging</i> , 2017 , 37, 159-163	3.3	0
93	Effect of Tumor Complexity and Technique on Efficacy and Complications after Percutaneous Microwave Ablation of Stage T1a Renal Cell Carcinoma: A Single-Center, Retrospective Study. <i>Radiology</i> , 2017 , 284, 272-280	20.5	53
92	Safety and Efficacy of Percutaneous Microwave Hepatic Ablation Near the Heart. <i>Journal of Vascular and Interventional Radiology</i> , 2017 , 28, 490-497	2.4	18
91	Numerical simulation of microwave ablation incorporating tissue contraction based on thermal dose. <i>Physics in Medicine and Biology</i> , 2017 , 62, 2070-2086	3.8	34
90	Ablation zone visualization enhancement by periodic contrast-enhancement computed tomography during microwave ablation. <i>Medical Physics</i> , 2017 , 44, 2132-2140	4.4	5
89	Potential Mechanisms of Vascular Thrombosis after Microwave Ablation in an <i>In Vivo</i> Liver. <i>Journal of Vascular and Interventional Radiology</i> , 2017 , 28, 1053-1058	2.4	4
88	Monitoring Microwave Ablation of <i>Ex Vivo</i> Bovine Liver Using Ultrasonic Attenuation Imaging. <i>Ultrasound in Medicine and Biology</i> , 2017 , 43, 1441-1451	3.5	13
87	Microwave Ablation of the Lung in a Porcine Model: Vessel Diameter Predicts Pulmonary Artery Occlusion. <i>CardioVascular and Interventional Radiology</i> , 2017 , 40, 1609-1616	2.7	2
86	Interstitial microwave treatment for cancer: historical basis and current techniques in antenna design and performance. <i>International Journal of Hyperthermia</i> , 2017 , 33, 3-14	3.7	35
85	Pulmonary Microwave Ablation Near the Heart: Antenna Positioning Can Mitigate Cardiac Complications in a Porcine Model. <i>Radiology</i> , 2017 , 282, 892-902	20.5	12
84	Microwave ablation in primary and secondary liver tumours: technical and clinical approaches. <i>International Journal of Hyperthermia</i> , 2017 , 33, 15-24	3.7	67
83	Percutaneous Microwave Ablation of Renal Angiomyolipomas. <i>CardioVascular and Interventional Radiology</i> , 2016 , 39, 433-40	2.7	12
82	Microwave Ablation: Comparison of Simultaneous and Sequential Activation of Multiple Antennas in Liver Model Systems. <i>Radiology</i> , 2016 , 278, 95-103	20.5	43
81	Hepatic Thermal Ablation: Effect of Device and Heating Parameters on Local Tissue Reactions and Distant Tumor Growth. <i>Radiology</i> , 2016 , 281, 782-792	20.5	57
80	Design of a dual slot antenna for small animal microwave ablation studies. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2016 , 2016, 348-351	0.9	3

79	Percutaneous microwave ablation of T1a and T1b renal cell carcinoma: short-term efficacy and complications with emphasis on tumor complexity and single session treatment. <i>Abdominal Radiology</i> , 2016 , 41, 1203-11	3	37
78	Effects of Microwave Ablation on Arterial and Venous Vasculature after Treatment of Hepatocellular Carcinoma. <i>Radiology</i> , 2016 , 281, 617-624	20.5	29
77	Hepatic Tumor Ablation. <i>Surgical Clinics of North America</i> , 2016 , 96, 315-39	4	14
76	Microwave Ablation for the Treatment of Hepatic Adenomas. <i>Journal of Vascular and Interventional Radiology</i> , 2016 , 27, 244-9	2.4	22
75	Radiofrequency and microwave ablation of subcapsular hepatocellular carcinoma accessed by direct puncture: Safety and efficacy. <i>European Journal of Radiology</i> , 2016 , 85, 739-43	4.7	26
74	Analysis of iodinated contrast delivered during thermal ablation: is material trapped in the ablation zone?. <i>Physics in Medicine and Biology</i> , 2016 , 61, 6041-54	3.8	4
73	Microwave versus Radiofrequency Ablation Treatment for Hepatocellular Carcinoma: A Comparison of Efficacy at a Single Center. <i>Journal of Vascular and Interventional Radiology</i> , 2016 , 27, 631-8	2.4	59
72	Letter To The EditOr. <i>Journal of Vascular and Interventional Radiology</i> , 2016 , 27, 933-4	2.4	
71	Modeling and validation of microwave ablations with internal vaporization. <i>IEEE Transactions on Biomedical Engineering</i> , 2015 , 62, 657-63	5	28
70	Evaluation of a thermoprotective gel for hydrodissection during percutaneous microwave ablation: in vivo results. <i>CardioVascular and Interventional Radiology</i> , 2015 , 38, 722-30	2.7	10
69	Heat transfer within hydrodissection fluids: An analysis of thermal conduction and convection using liquid and gel materials. <i>International Journal of Hyperthermia</i> , 2015 , 31, 551-9	3.7	4
68	Liver Ablation: Best Practice. <i>Radiologic Clinics of North America</i> , 2015 , 53, 933-71	2.3	54
67	Percutaneous microwave ablation of hepatocellular carcinoma with a gas-cooled system: initial clinical results with 107 tumors. <i>Journal of Vascular and Interventional Radiology</i> , 2015 , 26, 62-8	2.4	46
66	Microwave ablation of hepatic tumors abutting the diaphragm is safe and effective. <i>American Journal of Roentgenology</i> , 2015 , 204, 197-203	5.4	27
65	Early small-bowel ischemia: dual-energy CT improves conspicuity compared with conventional CT in a swine model. <i>Radiology</i> , 2015 , 275, 119-26	20.5	62
64	Predictors of thrombosis in hepatic vasculature during microwave tumor ablation of an in vivo porcine model. <i>Journal of Vascular and Interventional Radiology</i> , 2014 , 25, 1965-1971.e2	2.4	18
63	Image-guided tumor ablation: standardization of terminology and reporting criteria--a 10-year update. <i>Journal of Vascular and Interventional Radiology</i> , 2014 , 25, 1691-705.e4	2.4	307
62	Creation of short microwave ablation zones: in vivo characterization of single and paired modified triaxial antennas. <i>Journal of Vascular and Interventional Radiology</i> , 2014 , 25, 1633-40	2.4	17

61	Image-guided tumor ablation: standardization of terminology and reporting criteria--a 10-year update. <i>Radiology</i> , 2014 , 273, 241-60	20.5	611
60	Percutaneous tumor ablation tools: microwave, radiofrequency, or cryoablation--what should you use and why?. <i>Radiographics</i> , 2014 , 34, 1344-62	5.4	202
59	High-powered microwave ablation of t1a renal cell carcinoma: safety and initial clinical evaluation. <i>Journal of Endourology</i> , 2014 , 28, 1046-52	2.7	53
58	Microwave ablation energy delivery: influence of power pulsing on ablation results in an ex vivo and in vivo liver model. <i>Medical Physics</i> , 2014 , 41, 123301	4.4	30
57	Microwave ablation of malignant hepatic tumours: intraperitoneal fluid instillation prevents collateral damage and allows more aggressive case selection. <i>International Journal of Hyperthermia</i> , 2014 , 30, 299-305	3.7	29
56	Inducing valvular regurgitation in mice via thermal ablation of cardiac valves. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2014 , 2014, 5663-6	0.9	
55	CT imaging during microwave ablation: analysis of spatial and temporal tissue contraction. <i>Medical Physics</i> , 2014 , 41, 113303	4.4	42
54	A comparison of direct heating during radiofrequency and microwave ablation in ex vivo liver. <i>CardioVascular and Interventional Radiology</i> , 2013 , 36, 505-11	2.7	68
53	Tumor ablation: common modalities and general practices. <i>Techniques in Vascular and Interventional Radiology</i> , 2013 , 16, 192-200	2.6	136
52	Computational modelling of microwave tumour ablations. <i>International Journal of Hyperthermia</i> , 2013 , 29, 308-17	3.7	55
51	A dual-slot microwave antenna for more spherical ablation zones: ex vivo and in vivo validation. <i>Radiology</i> , 2013 , 268, 382-9	20.5	23
50	Microwave ablation of hepatic malignancy. <i>Seminars in Interventional Radiology</i> , 2013 , 30, 56-66	1.6	60
49	Design and validation of a thermoreversible material for percutaneous tissue hydrodissection. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2013 , 101, 1400-9	3.5	11
48	Bronchoscopically-Guided Microwave Ablation in the Lung. <i>Chest</i> , 2013 , 144, 87A	5.3	11
47	Tissue dielectric measurement using an interstitial dipole antenna. <i>IEEE Transactions on Biomedical Engineering</i> , 2012 , 59, 115-21	5	14
46	Quantifying local stiffness variations in radiofrequency ablations with dynamic indentation. <i>IEEE Transactions on Biomedical Engineering</i> , 2012 , 59, 728-35	5	18
45	High-powered microwave ablation with a small-gauge, gas-cooled antenna: initial ex vivo and in vivo results. <i>Journal of Vascular and Interventional Radiology</i> , 2012 , 23, 405-11	2.4	38
44	Visualizing ex vivo radiofrequency and microwave ablation zones using electrode vibration elastography. <i>Medical Physics</i> , 2012 , 39, 6692-700	4.4	24

43	Contrast media-doped hydrodissection during thermal ablation: optimizing contrast media concentration for improved visibility on CT images. <i>American Journal of Roentgenology</i> , 2012 , 199, 677-82	5.4	33
42	High-powered gas-cooled microwave ablation: shaft cooling creates an effective stick function without altering the ablation zone. <i>American Journal of Roentgenology</i> , 2012 , 198, W260-5	5.4	32
41	Flow-dependent vascular heat transfer during microwave thermal ablation. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2012 , 2012, 5582-5	0.9	16
40	Thermal ablation of lung tumors. <i>Surgical Oncology Clinics of North America</i> , 2011 , 20, 369-87, ix	2.7	39
39	Thermal tumor ablation in clinical use. <i>IEEE Pulse</i> , 2011 , 2, 28-38	0.7	103
38	Thermal ablation for the treatment of abdominal tumors. <i>Journal of Visualized Experiments</i> , 2011 ,	1.6	8
37	Principles of and advances in percutaneous ablation. <i>Radiology</i> , 2011 , 258, 351-69	20.5	564
36	Dual-slot antennas for microwave tissue heating: parametric design analysis and experimental validation. <i>Medical Physics</i> , 2011 , 38, 4232-40	4.4	52
35	Expanded modeling of temperature-dependent dielectric properties for microwave thermal ablation. <i>Physics in Medicine and Biology</i> , 2011 , 56, 5249-64	3.8	107
34	Microwave tissue ablation: biophysics, technology, and applications. <i>Critical Reviews in Biomedical Engineering</i> , 2010 , 38, 65-78	1.1	195
33	Electrode displacement strain imaging of thermally-ablated liver tissue in an in vivo animal model. <i>Medical Physics</i> , 2010 , 37, 1075-82	4.4	26
32	Ultrasound-based relative elastic modulus imaging for visualizing thermal ablation zones in a porcine model. <i>Physics in Medicine and Biology</i> , 2010 , 55, 2281-306	3.8	20
31	Temperature isotherms during pulmonary cryoablation and their correlation with the zone of ablation. <i>Journal of Vascular and Interventional Radiology</i> , 2010 , 21, 1424-8	2.4	33
30	Tissue contraction caused by radiofrequency and microwave ablation: a laboratory study in liver and lung. <i>Journal of Vascular and Interventional Radiology</i> , 2010 , 21, 1280-6	2.4	118
29	Microwave tumor ablation: mechanism of action, clinical results, and devices. <i>Journal of Vascular and Interventional Radiology</i> , 2010 , 21, S192-203	2.4	433
28	Microwaves create larger ablations than radiofrequency when controlled for power in ex vivo tissue. <i>Medical Physics</i> , 2010 , 37, 2967-73	4.4	84
27	Optimizing the protocol for pulmonary cryoablation: a comparison of a dual- and triple-freeze protocol. <i>CardioVascular and Interventional Radiology</i> , 2010 , 33, 1180-5	2.7	55
26	TU-E-201C-05: Electrode Displacement Strain Imaging for Monitoring In-Vivo Ablative Therapies. <i>Medical Physics</i> , 2010 , 37, 3405-3405	4.4	

25	Periodic contrast-enhanced computed tomography for thermal ablation monitoring: a feasibility study. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2009 , 2009, 4299-302	0.9	6
24	Pulmonary thermal ablation: comparison of radiofrequency and microwave devices by using gross pathologic and CT findings in a swine model. <i>Radiology</i> , 2009 , 251, 705-11	20.5	149
23	YoungW modulus reconstruction for radio-frequency ablation electrode-induced displacement fields: a feasibility study. <i>IEEE Transactions on Medical Imaging</i> , 2009 , 28, 1325-34	11.7	36
22	Microwave ablation technology: what every user should know. <i>Current Problems in Diagnostic Radiology</i> , 2009 , 38, 61-7	1.6	125
21	Radiofrequency and microwave ablation of the liver, lung, kidney, and bone: what are the differences?. <i>Current Problems in Diagnostic Radiology</i> , 2009 , 38, 135-43	1.6	371
20	2009 ,		1
19	In vivo ultrasound electrode displacement strain imaging 2009 ,		2
18	Tumor boundary estimation through time-domain peaks monitoring: numerical predictions and experimental results in tissue-mimicking phantoms. <i>IEEE Transactions on Biomedical Engineering</i> , 2009 , 56, 2634-41	5	4
17	Radiofrequency ablation: simultaneous application of multiple electrodes via switching creates larger, more confluent ablations than sequential application in a large animal model. <i>Journal of Vascular and Interventional Radiology</i> , 2009 , 20, 118-24	2.4	55
16	Microwave ablation versus radiofrequency ablation in the kidney: high-power triaxial antennas create larger ablation zones than similarly sized internally cooled electrodes. <i>Journal of Vascular and Interventional Radiology</i> , 2009 , 20, 1224-9	2.4	88
15	Multiple-Antenna Microwave Ablation: Spatially Distributing Power Improves Thermal Profiles and Reduces Invasiveness 2009 , 2, 65-72		19
14	Does selective intubation increase ablation zone size during pulmonary cryoablation?. <i>Journal of Vascular and Interventional Radiology</i> , 2008 , 19, 1497-501	2.4	9
13	Temperature-dependent dielectric properties of liver tissue measured during thermal ablation: toward an improved numerical model. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2008 , 2008, 230-3	0.9	30
12	Microwave ablation with triaxial antennas tuned for lung: results in an in vivo porcine model. <i>Radiology</i> , 2008 , 247, 80-7	20.5	52
11	Multiple-electrode radiofrequency ablation: comparison with a conventional cluster electrode in an in vivo porcine kidney model. <i>Journal of Vascular and Interventional Radiology</i> , 2007 , 18, 1005-10	2.4	21
10	Radiofrequency ablation with a high-power generator: device efficacy in an in vivo porcine liver model. <i>International Journal of Hyperthermia</i> , 2007 , 23, 387-94	3.7	22
9	Microwave ablation with a single small-gauge triaxial antenna: in vivo porcine liver model. <i>Radiology</i> , 2007 , 242, 435-40	20.5	84
8	Microwave ablation with multiple simultaneously powered small-gauge triaxial antennas: results from an in vivo swine liver model. <i>Radiology</i> , 2007 , 244, 151-6	20.5	90

7	Multiple-electrode radiofrequency ablation of hepatic malignancies: initial clinical experience. <i>American Journal of Roentgenology</i> , 2007 , 188, 1485-94	5.4	32
6	Electrical isolation during radiofrequency ablation: 5% dextrose in water provides better protection than saline. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2006 , 2006, 5021-4		14
5	Unintended thermal injuries from radiofrequency ablation: protection with 5% dextrose in water. <i>American Journal of Roentgenology</i> , 2006 , 186, S249-54	5.4	65
4	Multiple-electrode radiofrequency ablation creates confluent areas of necrosis: in vivo porcine liver results. <i>Radiology</i> , 2006 , 241, 116-24	20.5	67
3	Multiple-electrode radiofrequency ablation: simultaneous production of separate zones of coagulation in an in vivo porcine liver model. <i>Journal of Vascular and Interventional Radiology</i> , 2005 , 16, 1727-35	2.4	24
2	Microwave Ablation With a Triaxial Antenna: Results in ex vivo Bovine Liver. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2005 , 53, 215-220	4.1	85
1	Analysis and experimental validation of a triaxial antenna for microwave tumor ablation. <i>IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium</i> , 2004 , 3, 1437-1440		18