Boris Epel

List of Publications by Year
in descending order

77	2,048	257450 24	265206 42
papers	citations	h-index	g-index

79	79	79	1567
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Amniotic growth factors enhanced human preâ€adipocyte cell viability and differentiation under hypoxia. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, 110, 2146-2156.	3.4	6
2	In Vivo Partial Oxygen Pressure Assessment in Subcutaneous and Intraperitoneal Sites Using Imaging of Solid Oxygen Probe. Tissue Engineering - Part C: Methods, 2022, 28, 264-271.	2.1	9
3	The optimal 18F-fluoromisonidazole PET threshold to define tumor hypoxia in preclinical squamous cell carcinomas using pO2 electron paramagnetic resonance imaging as reference truth. European Journal of Nuclear Medicine and Molecular Imaging, 2022, 49, 4014-4024.	6.4	7
4	720ÂMHz Pulse EPR Imager with Arbitrary Waveform Generator-Based Bridge and Direct Sampling. Applied Magnetic Resonance, 2021, 52, 1031-1040.	1.2	1
5	Improving Tumor Hypoxia Location in 18F-Misonidazole PET with Dynamic Contrast-enhanced MRI Using Quantitative Electron Paramagnetic Resonance Partial Oxygen Pressure Images. Radiology Imaging Cancer, 2021, 3, e200104.	1.6	5
6	An inverse-breathing encapsulation system for cell delivery. Science Advances, 2021, 7, .	10.3	33
7	Small Animal IMRT Using 3D-Printed Compensators. International Journal of Radiation Oncology Biology Physics, 2021, 110, 551-565.	0.8	7
8	A balanced total-variation-Chambolle-Pock algorithm for EPR imaging. Journal of Magnetic Resonance, 2021, 328, 107009.	2.1	7
9	EPR Oxygen Imaging Workflow with MATLAB Image Registration Toolbox. Applied Magnetic Resonance, 2021, 52, 1311-1319.	1.2	4
10	A bioinspired scaffold for rapid oxygenation of cell encapsulation systems. Nature Communications, 2021, 12, 5846.	12.8	30
11	A Doubly Constrained TV Algorithm for Image Reconstruction. Mathematical Problems in Engineering, 2020, 2020, 1-15.	1.1	2
12	Merging Preclinical EPR Tomography with other Imaging Techniques. Cell Biochemistry and Biophysics, 2019, 77, 187-196.	1.8	7
13	Modular imaging system: Rapid scan EPR at 800â€MHz. Journal of Magnetic Resonance, 2019, 305, 94-103.	2.1	17
14	Highly sensitive electron paramagnetic resonance nanoradicals for quantitative intracellular tumor oxymetric images . International Journal of Nanomedicine, 2019, Volume 14, 2963-2971.	6.7	10
15	A PET/EPR simultaneous imaging system for assessing tumor hypoxia: development and initial imaging results. , 2019, , .		3
16	Oxygen-Guided Radiation Therapy. International Journal of Radiation Oncology Biology Physics, 2019, 103, 977-984.	0.8	59
17	Single-dose radiotherapy disables tumor cell homologous recombination via ischemia/reperfusion injury. Journal of Clinical Investigation, 2019, 129, 786-801.	8.2	50
18	Three novel accurate pixel-driven projection methods for 2D CT and 3D EPR imaging. Journal of X-Ray Science and Technology, 2018, 26, 83-102.	1.0	11

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19	Noninvasive Absolute Electron Paramagnetic Resonance Oxygen Imaging for the Assessment of Tissue Graft Oxygenation. Tissue Engineering - Part C: Methods, 2018, 24, 14-19.	2.1	13
20	Optimization-based image reconstruction from sparsely sampled data in electron paramagnetic resonance imaging. Journal of Magnetic Resonance, 2018, 294, 24-34.	2.1	16
21	Investigation of the preconditioner-parameter in the preconditioned Chambolle-Pock algorithm applied to optimization-based image reconstruction. Journal of X-Ray Science and Technology, 2018, 26, 435-448.	1.0	2
22	Imaging thiol redox status in murine tumors in vivo with rapid-scan electron paramagnetic resonance. Journal of Magnetic Resonance, 2017, 276, 31-36.	2.1	48
23	In vivo preclinical cancer and tissue engineering applications of absolute oxygen imaging using pulse EPR. Journal of Magnetic Resonance, 2017, 280, 149-157.	2.1	35
24	Rapid-scan EPR imaging. Journal of Magnetic Resonance, 2017, 280, 140-148.	2.1	29
25	Triarylmethyl Radical: EPR Signal to Noise at Frequencies between 250 MHz and 1.5 GHz and Dependence of Relaxation on Radical and Salt Concentration and on Frequency. Zeitschrift Fur Physikalische Chemie, 2017, 231, 923-937.	2.8	7
26	Spin Lattice Relaxation EPR pO2 Images May Direct the Location of Radiation Tumor Boosts to Enhance Tumor Cure. Cell Biochemistry and Biophysics, 2017, 75, 295-298.	1.8	15
27	A Pulse EPR 25ÂmT Magnetometer with 10Âppm Resolution. Applied Magnetic Resonance, 2017, 48, 805-811.	1.2	7
28	Resonators for In Vivo Imaging: Practical Experience. Applied Magnetic Resonance, 2017, 48, 1227-1247.	1.2	10
29	Electron Paramagnetic Resonance pO2 Image Tumor Oxygen-Guided Radiation Therapy Optimization. Advances in Experimental Medicine and Biology, 2017, 977, 287-296.	1.6	7
30	Correlation Between Hypoxia Proteins and EPR-Detected Hypoxia in Tumors. Advances in Experimental Medicine and Biology, 2017, 977, 319-325.	1.6	9
31	250 MHz passive Qâ€modulator for reflection resonators. Concepts in Magnetic Resonance Part B, 2017, 47B, .	0.7	1
32	Investigating the Distribution of Stable Paramagnetic Species in an Apple Seed Using X-Band EPR and EPR Imaging. Journal of Oleo Science, 2017, 66, 315-319.	1.4	14
33	Triarylmethyl Radical OX063d24 Oximetry: Electron Spin Relaxation at 250 MHz and RF Frequency Dependence of Relaxation and Signal-to-Noise. Advances in Experimental Medicine and Biology, 2017, 977, 327-334.	1.6	4
34	Decoupling of excitation and receive coils in pulsed magnetic resonance using sinusoidal magnetic field modulation. Journal of Magnetic Resonance, 2016, 272, 91-99.	2.1	3
35	Fast dynamic electron paramagnetic resonance (EPR) oxygen imaging using low-rank tensors. Journal of Magnetic Resonance, 2016, 270, 176-182.	2.1	23
36	Approaching Oxygen-Guided Intensity-Modulated Radiation Therapy. Advances in Experimental Medicine and Biology, 2016, 876, 185-193.	1.6	13

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37	Towards Human Oxygen Images with Electron Paramagnetic Resonance Imaging. Advances in Experimental Medicine and Biology, 2016, 876, 363-369.	1.6	20
38	Implementation of GPU-accelerated back projection for EPR imaging. Journal of X-Ray Science and Technology, 2015, 23, 423-433.	1.0	2
39	Maximally spaced projection sequencing in electron paramagnetic resonance imaging. Concepts in Magnetic Resonance Part B, 2015, 45, 33-45.	0.7	13
40	Realâ€time image reconstruction for pulse <scp>EPR</scp> oxygen imaging using a <scp>GPU</scp> and lookup table parameter fitting. Concepts in Magnetic Resonance Part B, 2015, 45, 46-57.	0.7	4
41	3D pulse EPR imaging from sparse-view projections via constrained, total variation minimization. Journal of Magnetic Resonance, 2015, 258, 49-57.	2.1	21
42	Comparison of pulse sequences for R1-based electron paramagnetic resonance oxygen imaging. Journal of Magnetic Resonance, 2015, 254, 56-61.	2.1	21
43	In Vivo pO2 Imaging of Tumors. Methods in Enzymology, 2015, 564, 501-527.	1.0	39
44	Principal component analysis enhances <scp>SNR</scp> for dynamic electron paramagnetic resonance oxygen imaging of cycling hypoxia in vivo. Magnetic Resonance in Medicine, 2014, 71, 440-450.	3.0	26
45	Comparison of parabolic filtration methods for 3D filtered back projection in pulsed EPR imaging. Journal of Magnetic Resonance, 2014, 248, 42-53.	2.1	14
46	Absolute oxygen R_{1e} imaging in vivo with pulse electron paramagnetic resonance. Magnetic Resonance in Medicine, 2014, 72, 362-368.	3.0	79
47	Locations of radical species in black pepper seeds investigated by CW EPR and 9GHz EPR imaging. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 131, 342-346.	3.9	23
48	Orthogonal resonators for pulse in vivo electron paramagnetic imaging at 250MHz. Journal of Magnetic Resonance, 2014, 240, 45-51.	2.1	14
49	How In Vivo EPR Measures and Images Oxygen. Advances in Experimental Medicine and Biology, 2014, 812, 113-119.	1.6	26
50	EPR Image Based Oxygen Movies for Transient Hypoxia. Advances in Experimental Medicine and Biology, 2014, 812, 127-133.	1.6	7
51	EPR Oxygen Images Predict Tumor Control by a 50% Tumor Control Radiation Dose. Cancer Research, 2013, 73, 5328-5335.	0.9	55
52	Radiation Oxygen Biology with Pulse Electron Paramagnetic Resonance Imaging in Animal Tumors. Advances in Experimental Medicine and Biology, 2013, 789, 399-404.	1.6	5
53	A 9 GHz EPR Imager for Thin Materials: Application to Surface Detection. Journal of Oleo Science, 2012, 61, 451-456.	1.4	13
54	Electron paramagnetic resonance oxygen imaging in vivo. Electron Paramagnetic Resonance, 2012, , 180-208.	0.2	18

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55	Electronic Structure of a Weakly Antiferromagnetically Coupled Mn^{II}Mn^{III}Model Relevant to Manganese Proteins: A Combined EPR,⁵⁵Mn-ENDOR, and DFT Study. Inorganic Chemistry, 2011, 50, 8238-8251.	4.0	55
56	Comparison of 250 MHz electron spin echo and continuous wave oxygen EPR imaging methods for in vivo applications. Medical Physics, 2011, 38, 2045-2052.	3.0	47
57	Where Itâ€™s at Really Matters: In Situ In Vivo Vascular Endothelial Growth Factor Spatially Correlates with Electron Paramagnetic Resonance pO2 Images in Tumors of Living Mice. Molecular Imaging and Biology, 2011, 13, 1107-1113.	2.6	24
58	Retractable loopâ€gap resonators for electron paramagnetic resonance imaging with in situ irradiation capabilities. Concepts in Magnetic Resonance Part B, 2011, 39B, 167-172.	0.7	7
59	Frequency bandwidth extension by use of multiple Zeeman field offsets for electron spin-echo EPR oxygen imaging of large objects. Medical Physics, 2011, 38, 3062-3068.	3.0	4
60	Comparison of transverse and spin-lattice relaxation based electron paramagnetic resonance oxygen images. , 2011, , .		2
61	SU-E-I-159: Delaunay Triangulation for Angular Interpolation and Single Stage Reconstruction of EPRI. Medical Physics, 2011, 38, 3432-3433.	3.0	0
62	Electron paramagnetic resonance oxygen imaging of a rabbit tumor using localized spin probe delivery. Medical Physics, 2010, 37, 2553-2559.	3.0	43
63	Multipleâ€stepped Zeeman field offset method applied in acquiring enhanced resolution spinâ€echo electron paramagnetic resonance images. Medical Physics, 2010, 37, 5412-5420.	3.0	5
64	Investigation of the Stationary and Transient A 1 Â·â˜ Radical in TrpÂâ†'ÂPhe Mutants of Photosystem I. Applied Magnetic Resonance, 2010, 38, 187-203.	1.2	7
65	A passive dualâ€circulator based transmit/receive switch for use with reflection resonators in pulse electron paramagnetic resonance. Concepts in Magnetic Resonance Part B, 2009, 35B, 133-138.	0.7	15
66	Electronic Structure of the Quinone Radical Anion A₁^{â€¢â˜}of Photosystem I Investigated by Advanced Pulse EPR and ENDOR Techniques. Journal of Physical Chemistry B, 2009, 113, 10367-10379.	2.6	42
67	A versatile high speed 250â€MHz pulse imager for biomedical applications. Concepts in Magnetic Resonance Part B, 2008, 33B, 163-176.	0.7	68
68	Electronic Structure of the Mn₄O_xCa Cluster in the S₀and S₂States of the Oxygen-Evolving Complex of Photosystem II Based on Pulse⁵⁵Mn-ENDOR and EPR Spectroscopy. Journal of the American Chemical Society, 2007, 129, 13421-13435.	13.7	230
69	Phylloquinone and Related Radical Anions Studied by Pulse Electron Nuclear Double Resonance Spectroscopy at 34 GHz and Density Functional Theory. Journal of Physical Chemistry B, 2006, 110, 11549-11560.	2.6	34
70	Spectrometer manager: A versatile control software for pulse EPR spectrometers. Concepts in Magnetic Resonance Part B, 2005, 26B, 36-45.	0.7	81
71	Multifrequency EPR analysis of the dimanganese cluster of the putative sulfate thiohydrolase SoxB of Paracoccus pantotrophus. Journal of Biological Inorganic Chemistry, 2005, 10, 636-642.	2.6	39
72	Pulse EPR, 55Mn-ENDOR and ELDOR-detected NMR of the S2-state of the oxygen evolving complex in Photosystem II. Photosynthesis Research, 2005, 84, 347-353.	2.9	37

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73	55Mn Pulse ENDOR at 34 GHz of the S0and S2States of the Oxygen-Evolving Complex in Photosystem II. Journal of the American Chemical Society, 2005, 127, 2392-2393.	13.7	174
74	Axial Solvent Coordination in â€œBase-Offâ€•Cob(II)alamin and Related Co(II)-Corrinates Revealed by 2D-EPR. Journal of the American Chemical Society, 2003, 125, 5915-5927.	13.7	62
75	Electron-Mediating CuA Centers in Proteins:â€‰ A Comparative High Field 1H ENDOR Study. Journal of the American Chemical Society, 2002, 124, 8152-8162.	13.7	35
76	Pulsed EPR/ENDOR Characterization of Perturbations of the CuACenter Ground State by Axial Methionine Ligand Mutations. Journal of the American Chemical Society, 2001, 123, 5325-5336.	13.7	37
77	Structure of Copper(II)â˜Histidine Based Complexes in Frozen Aqueous Solutions As Determined from High-Field Pulsed Electron Nuclear Double Resonance. Inorganic Chemistry, 2001, 40, 781-787.	4.0	63