

Boris Epel

List of Publications by Year in descending order

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257450

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#	ARTICLE	IF	CITATIONS
1	Electronic Structure of the Mn ₄ O _x Ca Cluster in the S ₀ and S ₂ States of the Oxygen-Evolving Complex of Photosystem II Based on Pulse ⁵⁵ Mn-ENDOR and EPR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2007, 129, 13421-13435.	13.7	230
2	⁵⁵ Mn Pulse ENDOR at 34 GHz of the S ₀ and S ₂ States of the Oxygen-Evolving Complex in Photosystem II. <i>Journal of the American Chemical Society</i> , 2005, 127, 2392-2393.	13.7	174
3	Spectrometer manager: A versatile control software for pulse EPR spectrometers. <i>Concepts in Magnetic Resonance Part B</i> , 2005, 26B, 36-45.	0.7	81
4	Absolute oxygen R _{1ρ} imaging in vivo with pulse electron paramagnetic resonance. <i>Magnetic Resonance in Medicine</i> , 2014, 72, 362-368.	3.0	79
5	A versatile high speed 250 MHz pulse imager for biomedical applications. <i>Concepts in Magnetic Resonance Part B</i> , 2008, 33B, 163-176.	0.7	68
6	Structure of Copper(II)-Histidine Based Complexes in Frozen Aqueous Solutions As Determined from High-Field Pulsed Electron Nuclear Double Resonance. <i>Inorganic Chemistry</i> , 2001, 40, 781-787.	4.0	63
7	Axial Solvent Coordination in a Base-Off Co(II)alamin and Related Co(II)-Corrinates Revealed by 2D-EPR. <i>Journal of the American Chemical Society</i> , 2003, 125, 5915-5927.	13.7	62
8	Oxygen-Guided Radiation Therapy. <i>International Journal of Radiation Oncology Biology Physics</i> , 2019, 103, 977-984.	0.8	59
9	Electronic Structure of a Weakly Antiferromagnetically Coupled Mn ^{II} Mn ^{III} Model Relevant to Manganese Proteins: A Combined EPR, ⁵⁵ Mn-ENDOR, and DFT Study. <i>Inorganic Chemistry</i> , 2011, 50, 8238-8251.	4.0	55
10	EPR Oxygen Images Predict Tumor Control by a 50% Tumor Control Radiation Dose. <i>Cancer Research</i> , 2013, 73, 5328-5335.	0.9	55
11	Single-dose radiotherapy disables tumor cell homologous recombination via ischemia/reperfusion injury. <i>Journal of Clinical Investigation</i> , 2019, 129, 786-801.	8.2	50
12	Imaging thiol redox status in murine tumors in vivo with rapid-scan electron paramagnetic resonance. <i>Journal of Magnetic Resonance</i> , 2017, 276, 31-36.	2.1	48
13	Comparison of 250 MHz electron spin echo and continuous wave oxygen EPR imaging methods for <i>in vivo</i> applications. <i>Medical Physics</i> , 2011, 38, 2045-2052.	3.0	47
14	Electron paramagnetic resonance oxygen imaging of a rabbit tumor using localized spin probe delivery. <i>Medical Physics</i> , 2010, 37, 2553-2559.	3.0	43
15	Electronic Structure of the Quinone Radical Anion A ₁ ^{•-} of Photosystem I Investigated by Advanced Pulse EPR and ENDOR Techniques. <i>Journal of Physical Chemistry B</i> , 2009, 113, 10367-10379.	2.6	42
16	Multifrequency EPR analysis of the dimanganese cluster of the putative sulfate thiohydrolase SoxB of <i>Paracoccus pantotrophus</i> . <i>Journal of Biological Inorganic Chemistry</i> , 2005, 10, 636-642.	2.6	39
17	In Vivo pO ₂ Imaging of Tumors. <i>Methods in Enzymology</i> , 2015, 564, 501-527.	1.0	39
18	Pulsed EPR/ENDOR Characterization of Perturbations of the Cu Center Ground State by Axial Methionine Ligand Mutations. <i>Journal of the American Chemical Society</i> , 2001, 123, 5325-5336.	13.7	37

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19	Pulse EPR, ⁵⁵ Mn-ENDOR and ELDOR-detected NMR of the S ₂ -state of the oxygen evolving complex in Photosystem II. <i>Photosynthesis Research</i> , 2005, 84, 347-353.	2.9	37
20	Electron-Mediating CuA Centers in Proteins: A Comparative High Field ¹ H ENDOR Study. <i>Journal of the American Chemical Society</i> , 2002, 124, 8152-8162.	13.7	35
21	In vivo preclinical cancer and tissue engineering applications of absolute oxygen imaging using pulse EPR. <i>Journal of Magnetic Resonance</i> , 2017, 280, 149-157.	2.1	35
22	Phylloquinone and Related Radical Anions Studied by Pulse Electron Nuclear Double Resonance Spectroscopy at 34 GHz and Density Functional Theory. <i>Journal of Physical Chemistry B</i> , 2006, 110, 11549-11560.	2.6	34
23	An inverse-breathing encapsulation system for cell delivery. <i>Science Advances</i> , 2021, 7, .	10.3	33
24	A bioinspired scaffold for rapid oxygenation of cell encapsulation systems. <i>Nature Communications</i> , 2021, 12, 5846.	12.8	30
25	Rapid-scan EPR imaging. <i>Journal of Magnetic Resonance</i> , 2017, 280, 140-148.	2.1	29
26	Principal component analysis enhances $\langle \text{SNR} \rangle$ for dynamic electron paramagnetic resonance oxygen imaging of cycling hypoxia in vivo. <i>Magnetic Resonance in Medicine</i> , 2014, 71, 440-450.	3.0	26
27	How In Vivo EPR Measures and Images Oxygen. <i>Advances in Experimental Medicine and Biology</i> , 2014, 812, 113-119.	1.6	26
28	Where It Matters at Really Matters: In Situ In Vivo Vascular Endothelial Growth Factor Spatially Correlates with Electron Paramagnetic Resonance pO ₂ Images in Tumors of Living Mice. <i>Molecular Imaging and Biology</i> , 2011, 13, 1107-1113.	2.6	24
29	Locations of radical species in black pepper seeds investigated by CW EPR and 9GHz EPR imaging. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2014, 131, 342-346.	3.9	23
30	Fast dynamic electron paramagnetic resonance (EPR) oxygen imaging using low-rank tensors. <i>Journal of Magnetic Resonance</i> , 2016, 270, 176-182.	2.1	23
31	3D pulse EPR imaging from sparse-view projections via constrained, total variation minimization. <i>Journal of Magnetic Resonance</i> , 2015, 258, 49-57.	2.1	21
32	Comparison of pulse sequences for R1-based electron paramagnetic resonance oxygen imaging. <i>Journal of Magnetic Resonance</i> , 2015, 254, 56-61.	2.1	21
33	Towards Human Oxygen Images with Electron Paramagnetic Resonance Imaging. <i>Advances in Experimental Medicine and Biology</i> , 2016, 876, 363-369.	1.6	20
34	Electron paramagnetic resonance oxygen imaging <i>in vivo</i> . <i>Electron Paramagnetic Resonance</i> , 2012, , 180-208.	0.2	18
35	Modular imaging system: Rapid scan EPR at 800 MHz. <i>Journal of Magnetic Resonance</i> , 2019, 305, 94-103.	2.1	17
36	Optimization-based image reconstruction from sparsely sampled data in electron paramagnetic resonance imaging. <i>Journal of Magnetic Resonance</i> , 2018, 294, 24-34.	2.1	16

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37	A passive dual-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
38	Spin Lattice Relaxation EPR pO ₂ Images May Direct the Location of Radiation Tumor Boosts to Enhance Tumor Cure. Cell Biochemistry and Biophysics, 2017, 75, 295-298.	1.8	15
39	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
40	Orthogonal resonators for pulse in vivo electron paramagnetic imaging at 250MHz. Journal of Magnetic Resonance, 2014, 240, 45-51.	2.1	14
41	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
42	A 9 GHz EPR Imager for Thin Materials: Application to Surface Detection. Journal of Oleo Science, 2012, 61, 451-456.	1.4	13
43	Maximally spaced projection sequencing in electron paramagnetic resonance imaging. Concepts in Magnetic Resonance Part B, 2015, 45, 33-45.	0.7	13
44	Approaching Oxygen-Guided Intensity-Modulated Radiation Therapy. Advances in Experimental Medicine and Biology, 2016, 876, 185-193.	1.6	13
45	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
46	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
47	Resonators for In Vivo Imaging: Practical Experience. Applied Magnetic Resonance, 2017, 48, 1227-1247.	1.2	10
48	<p>Highly sensitive electron paramagnetic resonance nanoradicals for quantitative intracellular tumor oxymetric images</p>. International Journal of Nanomedicine, 2019, Volume 14, 2963-2971.	6.7	10
49	Correlation Between Hypoxia Proteins and EPR-Detected Hypoxia in Tumors. Advances in Experimental Medicine and Biology, 2017, 977, 319-325.	1.6	9
50	<i>In Vivo</i> 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
51	Investigation of the Stationary and Transient A 1 Å• Radical in TrpÅ•Phe Mutants of Photosystem I. Applied Magnetic Resonance, 2010, 38, 187-203.	1.2	7
52	Retractable loop-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
53	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
54	A Pulse EPR 25Å•T Magnetometer with 10Å•ppm Resolution. Applied Magnetic Resonance, 2017, 48, 805-811.	1.2	7

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55	Electron Paramagnetic Resonance pO ₂ Image Tumor Oxygen-Guided Radiation Therapy Optimization. <i>Advances in Experimental Medicine and Biology</i> , 2017, 977, 287-296.	1.6	7
56	Merging Preclinical EPR Tomography with other Imaging Techniques. <i>Cell Biochemistry and Biophysics</i> , 2019, 77, 187-196.	1.8	7
57	Small Animal IMRT Using 3D-Printed Compensators. <i>International Journal of Radiation Oncology Biology Physics</i> , 2021, 110, 551-565.	0.8	7
58	A balanced total-variation-Chambolle-Pock algorithm for EPR imaging. <i>Journal of Magnetic Resonance</i> , 2021, 328, 107009.	2.1	7
59	EPR Image Based Oxygen Movies for Transient Hypoxia. <i>Advances in Experimental Medicine and Biology</i> , 2014, 812, 127-133.	1.6	7
60	The optimal 18F-fluoromisonidazole PET threshold to define tumor hypoxia in preclinical squamous cell carcinomas using pO ₂ electron paramagnetic resonance imaging as reference truth. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2022, 49, 4014-4024.	6.4	7
61	Amniotic growth factors enhanced human preadipocyte cell viability and differentiation under hypoxia. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2022, 110, 2146-2156.	3.4	6
62	Multiple-stepped Zeeman field offset method applied in acquiring enhanced resolution spin-echo electron paramagnetic resonance images. <i>Medical Physics</i> , 2010, 37, 5412-5420.	3.0	5
63	Improving Tumor Hypoxia Location in 18F-Misonidazole PET with Dynamic Contrast-enhanced MRI Using Quantitative Electron Paramagnetic Resonance Partial Oxygen Pressure Images. <i>Radiology Imaging Cancer</i> , 2021, 3, e200104.	1.6	5
64	Radiation Oxygen Biology with Pulse Electron Paramagnetic Resonance Imaging in Animal Tumors. <i>Advances in Experimental Medicine and Biology</i> , 2013, 789, 399-404.	1.6	5
65	Frequency bandwidth extension by use of multiple Zeeman field offsets for electron spin-echo EPR oxygen imaging of large objects. <i>Medical Physics</i> , 2011, 38, 3062-3068.	3.0	4
66	Real-time image reconstruction for pulse EPR oxygen imaging using a GPU and lookup table parameter fitting. <i>Concepts in Magnetic Resonance Part B</i> , 2015, 45, 46-57.	0.7	4
67	EPR Oxygen Imaging Workflow with MATLAB Image Registration Toolbox. <i>Applied Magnetic Resonance</i> , 2021, 52, 1311-1319.	1.2	4
68	Triarylmethyl Radical OX063d24 Oximetry: Electron Spin Relaxation at 250 MHz and RF Frequency Dependence of Relaxation and Signal-to-Noise. <i>Advances in Experimental Medicine and Biology</i> , 2017, 977, 327-334.	1.6	4
69	Decoupling of excitation and receive coils in pulsed magnetic resonance using sinusoidal magnetic field modulation. <i>Journal of Magnetic Resonance</i> , 2016, 272, 91-99.	2.1	3
70	A PET/EPR simultaneous imaging system for assessing tumor hypoxia: development and initial imaging results. , 2019, , .		3
71	Comparison of transverse and spin-lattice relaxation based electron paramagnetic resonance oxygen images. , 2011, , .		2
72	Implementation of GPU-accelerated back projection for EPR imaging. <i>Journal of X-Ray Science and Technology</i> , 2015, 23, 423-433.	1.0	2

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73	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
74	A Doubly Constrained TV Algorithm for Image Reconstruction. Mathematical Problems in Engineering, 2020, 2020, 1-15.	1.1	2
75	250 MHz passive Qâ€modulator for reflection resonators. Concepts in Magnetic Resonance Part B, 2017, 47B, .	0.7	1
76	720ÂMHz Pulse EPR Imager with Arbitrary Waveform Generator-Based Bridge and Direct Sampling. Applied Magnetic Resonance, 2021, 52, 1031-1040.	1.2	1
77	SU-E-I-159: Delaunay Triangulation for Angular Interpolation and Single Stage Reconstruction of EPRI. Medical Physics, 2011, 38, 3432-3433.	3.0	0