

Nikolai I Avdievich

List of Publications by Year in descending order

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60
papers

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394421

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docs citations

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times ranked

905
citing authors

#	ARTICLE	IF	CITATIONS
1	Relaxation-corrected macromolecular model enables determination of ^1H longitudinal T_1 relaxation times and concentrations of human brain metabolites at 9.4T. <i>Magnetic Resonance in Medicine</i> , 2022, 87, 33-49.	3.0	10
2	Simultaneous detection of metabolite concentration changes, water BOLD signal and pH changes during visual stimulation in the human brain at 9.4T. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2022, , 0271678X2210758.	4.3	6
3	Accelerated MRI at 9.4 T with electronically modulated time-varying receive sensitivities. <i>Magnetic Resonance in Medicine</i> , 2022, 88, 742-756.	3.0	3
4	Double-row dipole/loop combined array for human whole brain imaging at 7T. <i>NMR in Biomedicine</i> , 2022, 35, e4773.	2.8	6
5	Measurement of glucose metabolism in the occipital lobe and frontal cortex after oral administration of $[1-^{13}\text{C}]$ glucose at 9.4 T. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2022, 42, 1890-1904.	4.3	4
6	A 32-element loop/dipole hybrid array for human head imaging at 7T. <i>Magnetic Resonance in Medicine</i> , 2022, 88, 1912-1926.	3.0	12
7	Ultrahigh-resolution quantitative spinal cord MRI at 9.4T. <i>Magnetic Resonance in Medicine</i> , 2021, 85, 1013-1027.	3.0	5
8	A novel method to measure T_1 relaxation times of macromolecules and quantification of the macromolecular resonances. <i>Magnetic Resonance in Medicine</i> , 2021, 85, 601-614.	3.0	14
9	Comparison of four ^{31}P single-voxel MRS sequences in the human brain at 9.4 T. <i>Magnetic Resonance in Medicine</i> , 2021, 85, 3010-3026.	3.0	10
10	Electromagnetic simulation of a 16-channel head transceiver at 7 T using circuit-spatial optimization. <i>Magnetic Resonance in Medicine</i> , 2021, 85, 3463-3478.	3.0	3
11	Unshielded bent folded-end dipole 9.4 T human head transceiver array decoupled using modified passive dipoles. <i>Magnetic Resonance in Medicine</i> , 2021, 86, 581-597.	3.0	13
12	Folded-end dipole transceiver array for human whole-brain imaging at 7T. <i>NMR in Biomedicine</i> , 2021, 34, e4541.	2.8	11
13	Open birdcage coil for head imaging at 7T. <i>Magnetic Resonance in Medicine</i> , 2021, 86, 2290-2300.	3.0	2
14	9.4T double-tuned $^{13}\text{C}/^1\text{H}$ human head array using a combination of surface loops and dipole antennas. <i>NMR in Biomedicine</i> , 2021, 34, e4577.	2.8	9
15	Feasibility of deuterium magnetic resonance spectroscopy of 3-O-Methylglucose at 7 Tesla. <i>PLoS ONE</i> , 2021, 16, e0252935.	2.5	9
16	3D ^{31}P MRSI of the human brain at 9.4 Tesla: Optimization and quantitative analysis of metabolic images. <i>Magnetic Resonance in Medicine</i> , 2021, 86, 2368-2383.	3.0	10
17	Deuterium metabolic imaging in the human brain at 9.4 Tesla with high spatial and temporal resolution. <i>NeuroImage</i> , 2021, 244, 118639.	4.2	34
18	Bent folded-end dipole head array for ultrahigh-field MRI turns dielectric resonance from an enemy to a friend. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 3453-3467.	3.0	21

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19	Decoupling of folded dipole antenna elements of a 9.4 T human head array using an RF shield. NMR in Biomedicine, 2020, 33, e4351.	2.8	16
20	Double-tuned $^{31}\text{P}/^1\text{H}$ human head array with high performance at both frequencies for spectroscopic imaging at 9.4T. Magnetic Resonance in Medicine, 2020, 84, 1076-1089.	3.0	21
21	Evaluation of short folded dipole antennas as receive elements of ultra-high field human head array. Magnetic Resonance in Medicine, 2019, 82, 811-824.	3.0	16
22	Investigation of the influence of macromolecules and spline baseline in the fitting model of human brain spectra at 9.4T. Magnetic Resonance in Medicine, 2019, 81, 746-758.	3.0	35
23	Double-row 18-loop transmit $^{32}\text{loop}$ receive tight-fit array provides for whole-brain coverage, high transmit performance, and SNR improvement near the brain center at 9.4T. Magnetic Resonance in Medicine, 2019, 81, 3392-3405.	3.0	27
24	Dynamic B_0 shimming of the human brain at 9.4 T with a 16-channel multi-coil shim setup. Magnetic Resonance in Medicine, 2018, 80, 1714-1725.	3.0	27
25	Combination of surface and vertical loop elements improves receive performance of a human head transceiver array at 9.4T. NMR in Biomedicine, 2018, 31, e3878.	2.8	28
26	Characterization of macromolecular baseline of human brain using metabolite cycled semi-LASER at 9.4T. Magnetic Resonance in Medicine, 2018, 80, 462-473.	3.0	26
27	Non-water-suppressed ^1H FID-MRSI at 3T and 9.4T. Magnetic Resonance in Medicine, 2018, 80, 442-451.	3.0	14
28	Compressed sensing for high-resolution nonlipid suppressed ^1H FID MRSI of the human brain at 9.4T. Magnetic Resonance in Medicine, 2018, 80, 2311-2325.	3.0	30
29	Decoupling of a tight-fit transceiver phased array for human brain imaging at 9.4T: Loop overlapping rediscovered. Magnetic Resonance in Medicine, 2018, 79, 1200-1211.	3.0	26
30	In vivo characterization of the downfield part of ^1H MR spectra of human brain at 9.4 T: Magnetization exchange with water and relation to conventionally determined metabolite content. Magnetic Resonance in Medicine, 2018, 79, 2863-2873.	3.0	19
31	Metabolite-cycled STEAM and semi-LASER localization for MR spectroscopy of the human brain at 9.4T. Magnetic Resonance in Medicine, 2018, 79, 1841-1850.	3.0	38
32	Decoupling of a double-row 16-element tight-fit transceiver phased array for human whole-brain imaging at 9.4 T. NMR in Biomedicine, 2018, 31, e3964.	2.8	15
33	Analytical modeling provides new insight into complex mutual coupling between surface loops at ultrahigh fields. NMR in Biomedicine, 2017, 30, e3759.	2.8	12
34	Accurate determination of brain metabolite concentrations using ERETIC as external reference. NMR in Biomedicine, 2017, 30, e3731.	2.8	12
35	Evaluation of transmit efficiency and SAR for a tight fit transceiver human head phased array at 9.4T. NMR in Biomedicine, 2017, 30, e3680.	2.8	34
36	Novel splittable $N_{Tx}/2N_{Rx}$ transceiver phased array to optimize both signal-to-noise ratio and transmit efficiency at 9.4T. Magnetic Resonance in Medicine, 2016, 76, 1621-1628.	3.0	4

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37	Safety testing and operational procedures for self-developed radiofrequency coils. <i>NMR in Biomedicine</i> , 2016, 29, 1131-1144.	2.8	91
38	TREPR spectra of micelle-confined spin correlated radical pairs: I. Molecular motion and simulations. <i>Photochemical and Photobiological Sciences</i> , 2014, 13, 439-453.	2.9	14
39	Selective homonuclear polarization transfer for spectroscopic imaging of GABA at 7T. <i>Magnetic Resonance in Medicine</i> , 2013, 69, 310-316.	3.0	18
40	Resonant inductive decoupling (RID) for transceiver arrays to compensate for both reactive and resistive components of the mutual impedance. <i>NMR in Biomedicine</i> , 2013, 26, 1547-1554.	2.8	58
41	Transceiver-Phased Arrays for Human Brain Studies at 7 T. <i>Applied Magnetic Resonance</i> , 2011, 41, 483-506.	1.2	80
42	Improved homogeneity of the transmit field by simultaneous transmission with phased array and volume coil. <i>Journal of Magnetic Resonance Imaging</i> , 2010, 32, 476-481.	3.4	16
43	RF shimming for spectroscopic localization in the human brain at 7 T. <i>Magnetic Resonance in Medicine</i> , 2010, 63, 9-19.	3.0	82
44	7T head volume coils: Improvements for rostral brain imaging. <i>Journal of Magnetic Resonance Imaging</i> , 2009, 29, 461-465.	3.4	19
45	High-field actively detuneable transverse electromagnetic (TEM) coil with low-bias voltage for high-power RF transmission. <i>Magnetic Resonance in Medicine</i> , 2007, 57, 1190-1195.	3.0	6
46	4T Actively detuneable double-tuned ¹ H/ ³¹ P head volume coil and four-channel ³¹ P phased array for human brain spectroscopy. <i>Journal of Magnetic Resonance</i> , 2007, 186, 341-346.	2.1	40
47	4T split TEM volume head and knee coils for improved sensitivity and patient accessibility. <i>Journal of Magnetic Resonance</i> , 2007, 187, 234-241.	2.1	4
48	Flexible Biradicals in Liquid and Supercritical Carbon Dioxide: The Exchange Interaction, the Chain Dynamics, and a Comparison with Conventional Solvents. <i>Journal of Physical Chemistry A</i> , 2006, 110, 1767-1774.	2.5	7
49	Sensitivity enhancement and compensation of RF penetration artifact with planar actively detunable quadrature surface coil. <i>Magnetic Resonance Imaging</i> , 2006, 24, 81-87.	1.8	3
50	Three-dimensional high-inductance birdcage coil for NQR applications. <i>Solid State Nuclear Magnetic Resonance</i> , 2006, 30, 75-80.	2.3	0
51	SENSE imaging with a quadrature half-volume transverse electromagnetic (TEM) coil at 4T. <i>Journal of Magnetic Resonance Imaging</i> , 2006, 24, 934-938.	3.4	4
52	Open half-volume quadrature transverse electromagnetic coil for high-field magnetic resonance imaging. <i>Magnetic Resonance in Medicine</i> , 2005, 53, 937-943.	3.0	21
53	4 T actively detunable transmit/receive transverse electromagnetic coil and 4-channel receive-only phased array for ¹ H human brain studies. <i>Magnetic Resonance in Medicine</i> , 2004, 52, 1459-1464.	3.0	18
54	Modified perturbation method for transverse electromagnetic (TEM) coil tuning and evaluation. <i>Magnetic Resonance in Medicine</i> , 2003, 50, 13-18.	3.0	13

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55	Influence of Molecular Structure on the Rate of Intersystem Crossing in Flexible Biradicals. Journal of Physical Chemistry A, 1997, 101, 8809-8816.	2.5	45
56	Time-Resolved EPR Study of a 1,9-Flexible Biradical Dissolved in Liquid Carbon Dioxide. Observation of a New Spin-Relaxation Phenomenon: Alternating Intensities in Spin-Correlated Radical Pair Spectra. Journal of Physical Chemistry A, 1997, 101, 617-621.	2.5	17
57	Unusual Dynamics of Micellized Radical Pairs Generated from Photochemically Active Amphiphiles. Journal of the American Chemical Society, 1996, 118, 10652-10653.	13.7	9
58	In Search of Through-Solvent Electronic Coupling in Flexible Biradicals. Journal of the American Chemical Society, 1996, 118, 4707-4708.	13.7	18
59	Examination of the Exchange Interaction through Micellar Size. 3. Stimulated Nuclear Polarization and Time Resolved Electron Spin Resonance Spectra from the Photolysis of Methyldeoxybenzoin in Alkyl Sulfate Micelles of Different Sizes. Journal of the American Chemical Society, 1995, 117, 110-118.	13.7	52
60	Investigation of Micellized Radical Pairs in the Photolysis of Ketones by Time-Resolved Stimulated Nuclear Polarization*. Zeitschrift Fur Physikalische Chemie, 1993, 182, 107-117.	2.8	11