

Gil Navon

List of Publications by Year in descending order

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111
papers

3,411
citations

159358

30
h-index

168136

53
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115
all docs

115
docs citations

115
times ranked

2677
citing authors

#	ARTICLE	IF	CITATIONS
1	An in vivo implementation of the MEX MRI for myelin fraction of mice brain. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2022, 35, 267-276.	1.1	1
2	What do we know about dynamic glucose-enhanced (DGE) MRI and how close is it to the clinics? Horizon 2020 GLINT consortium report. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2022, 35, 87-104.	1.1	7
3	Breast cancer imaging with glucosamine CEST (chemical exchange saturation transfer) MRI: first human experience. <i>European Radiology</i> , 2022, 32, 7365-7373.	2.3	7
4	Quantitative Magnetization α Exchange MRI Measurement of Liver Fibrosis Model in Rodents. <i>Journal of Magnetic Resonance Imaging</i> , 2022, , .	1.9	1
5	Phosphate buffer-catalyzed kinetics of mutarotation of glucosamine investigated by NMR spectroscopy. <i>Carbohydrate Research</i> , 2022, 517, 108581.	1.1	1
6	Identification of water compartments in spinal cords by 2 H double quantum filtered NMR. <i>NMR in Biomedicine</i> , 2021, 34, e4452.	1.6	2
7	Molecular imaging of cancer by glucosamine chemical exchange saturation transfer MRI: A preclinical study. <i>NMR in Biomedicine</i> , 2021, 34, e4431.	1.6	9
8	Deuterium double quantum-filtered NMR studies of peripheral and optic nerves. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2021, 34, 889-902.	1.1	1
9	New insight into the organization of myelin water using deuterium NMR. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 535-541.	1.9	3
10	Quantification of hydroxyl exchange of D-Glucose at physiological conditions for optimization of glucoCEST MRI at 3, 7 and 9.4 Tesla. <i>NMR in Biomedicine</i> , 2019, 32, e4113.	1.6	49
11	Molecular imaging of tumors by chemical exchange saturation transfer MRI of glucose analogs. <i>Quantitative Imaging in Medicine and Surgery</i> , 2019, 9, 1731-1746.	1.1	24
12	CEST MRI of 3-O-methyl-D-glucose on different breast cancer models. <i>Magnetic Resonance in Medicine</i> , 2018, 79, 1061-1069.	1.9	44
13	3-O-Methyl-d-glucose mutarotation and proton exchange rates assessed by ^{13}C , ^1H NMR and by chemical exchange saturation transfer and spin lock measurements. <i>Journal of Biomolecular NMR</i> , 2018, 72, 93-103.	1.6	8
14	Teriparatide attenuates scarring around murine cranial bone allograft via modulation of angiogenesis. <i>Bone</i> , 2017, 97, 192-200.	1.4	15
15	Sodium NMR/MRI for anisotropic systems. <i>NMR in Biomedicine</i> , 2016, 29, 144-152.	1.6	20
16	Hyperpolarized ^{6}Li as a probe for hemoglobin oxygenation level. <i>Contrast Media and Molecular Imaging</i> , 2016, 11, 41-46.	0.4	15
17	Glucosamine and N-acetyl glucosamine as new CEST MRI agents for molecular imaging of tumors. <i>Scientific Reports</i> , 2016, 6, 32648.	1.6	58
18	NMR Studies of the Equilibria and Reaction Rates in Aqueous Solutions of Formaldehyde. <i>Journal of Physical Chemistry B</i> , 2015, 119, 4479-4487.	1.2	53

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19	<i>In vivo</i> assessment of aged human skin with a unilateral NMR scanner. <i>NMR in Biomedicine</i> , 2015, 28, 656-666.	1.6	15
20	Rapid method for assessing relative tissue stiffness using MR acoustic radiation force imaging. <i>International Journal of Imaging Systems and Technology</i> , 2014, 24, 103-110.	2.7	4
21	Functional molecular imaging of tumors by chemical exchange saturation transfer MRI of ^3O -Methyl $^2\text{glucose}$. <i>Magnetic Resonance in Medicine</i> , 2014, 72, 1375-1380.	1.9	70
22	Sialo-CEST: chemical exchange saturation transfer NMR of oligo- and poly-sialic acids and the assignment of their hydroxyl groups using selective- and HSQC-TOCSY. <i>Carbohydrate Research</i> , 2014, 389, 165-173.	1.1	21
23	NMR studies of proton exchange kinetics in aqueous formaldehyde solutions. <i>Journal of Magnetic Resonance</i> , 2014, 242, 107-112.	1.2	12
24	Collagen Composition and Content $\text{\textcircled{D}}$ Dependent Contrast in Porcine Annulus Fibrosus Achieved by Using Double Quantum and Magnetization Transfer Filtered UTE MRI. <i>Magnetic Resonance in Medicine</i> , 2014, 71, 388-393.	1.9	5
25	Optic nerve: Separating compartments based on ^{23}Na TQF spectra and TQF-diffusion anisotropy. <i>Journal of Magnetic Resonance</i> , 2013, 231, 61-65.	1.2	9
26	DQF-MT MRI of connective tissues: application to tendon and muscle. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2013, 26, 203-214.	1.1	6
27	Molecular imaging of tumors and metastases using chemical exchange saturation transfer (CEST) MRI. <i>Scientific Reports</i> , 2013, 3, 3045.	1.6	101
28	Magnetic alignment and quadrupolar/paramagnetic cross-correlation in complexes of Na with $\text{LnDOTP}^5\text{\textcircled{r}}$. <i>Journal of Magnetic Resonance</i> , 2012, 216, 114-120.	1.2	3
29	Assessment of glycosaminoglycan concentration changes in the intervertebral disc via chemical exchange saturation transfer. <i>NMR in Biomedicine</i> , 2012, 25, 255-261.	1.6	70
30	Characterization and mapping of dipolar interactions within macromolecules in tissues using a combination of DQF, MT and UTE MRI. <i>NMR in Biomedicine</i> , 2012, 25, 1152-1159.	1.6	12
31	Monitoring of the effect of intervertebral disc nucleus pulposus ablation by MRI. <i>NMR in Biomedicine</i> , 2010, 23, 554-562.	1.6	7
32	^{23}Na and ^2H magnetic resonance studies of osteoarthritic and osteoporotic articular cartilage. <i>Magnetic Resonance in Medicine</i> , 2010, 64, 653-661.	1.9	10
33	Nearly 106-fold enhancements in intermolecular ^1H double-quantum NMR experiments by nuclear hyperpolarization. <i>Journal of Magnetic Resonance</i> , 2009, 200, 142-146.	1.2	32
34	Double quantum transition as the origin of the central dip in the z-spectrum of HDO in variably stretched gel. <i>Journal of Magnetic Resonance</i> , 2009, 198, 197-203.	1.2	17
35	Magnetization transfer based contrast for imaging denatured collagen. <i>Journal of Magnetic Resonance Imaging</i> , 2008, 27, 1155-1163.	1.9	14
36	A new MRI method, tested <i>in vitro</i> for the assessment of thermal coagulation and demonstrated <i>in vivo</i> on focused ultrasound ablation. <i>NMR in Biomedicine</i> , 2008, 21, 637-643.	1.6	6

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37	Enhancement of magnetization transfer effects by inter-molecular multiple quantum filtered NMR. <i>Journal of Magnetic Resonance</i> , 2008, 190, 149-153.	1.2	19
38	Chemical exchange saturation transfer by intermolecular double-quantum coherence. <i>Journal of Magnetic Resonance</i> , 2008, 194, 29-32.	1.2	25
39	Assessment of glycosaminoglycan concentration <i>in vivo</i> by chemical exchange-dependent saturation transfer (gagCEST). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 2266-2270.	3.3	511
40	Comparison of the effects of mechanical and osmotic pressures on the collagen fiber architecture of intact and proteoglycan-depleted articular cartilage. <i>European Biophysics Journal</i> , 2007, 36, 529-538.	1.2	8
41	Collagen Fibers as a Chiral Agent: A Demonstration of Stereochemistry Effects. <i>Journal of the American Chemical Society</i> , 2006, 128, 15956-15957.	6.6	40
42	Multinuclear NMR and microscopic MRI studies of the articular cartilage nanostructure. <i>NMR in Biomedicine</i> , 2006, 19, 877-893.	1.6	48
43	Multinuclear NMR and MRI studies of the maturation of pig articular cartilage. <i>Magnetic Resonance in Medicine</i> , 2006, 55, 532-540.	1.9	40
44	Neotendon formation induced by manipulation of the Smad8 signalling pathway in mesenchymal stem cells. <i>Journal of Clinical Investigation</i> , 2006, 116, 940-952.	3.9	221
45	The effect of detachment of the articular cartilage from its calcified zone on the cartilage microstructure, assessed by ² H-spectroscopic double quantum filtered MRI. <i>Journal of Orthopaedic Research</i> , 2005, 23, 109-117.	1.2	37
46	Measurements of intracellular volumes by ⁵⁹ Co and ² H/ ¹ H NMR and their physiological applications. <i>NMR in Biomedicine</i> , 2005, 18, 104-110.	1.6	5
47	Nuclear magnetic resonance parameters for monitoring coagulation of liver tissue. <i>Magnetic Resonance in Medicine</i> , 2005, 54, 1082-1086.	1.9	9
48	The effect of decalcification on the microstructure of articular cartilage assessed by ² H double quantum filtered spectroscopic MRI. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2005, 18, 231-237.	1.1	9
49	New MRI method with contrast based on the macromolecular characteristics of tissues. <i>Magnetic Resonance in Medicine</i> , 2003, 50, 229-234.	1.9	20
50	A new method for suppressing the central transition in $I=3/2$ NMR spectra with a demonstration for ²³ Na in bovine articular cartilage. <i>Journal of Magnetic Resonance</i> , 2003, 165, 276-281.	1.2	21
51	Evaluation of collagen fiber maturation and ordering in regenerating tendons employing ¹ H double quantum filtered NMR spectroscopy. <i>Journal of Orthopaedic Research</i> , 2003, 21, 149-156.	1.2	12
52	Multiple Quantum Filtered NMR Studies of the Interaction between Collagen and Water in the Tendon. <i>Journal of the American Chemical Society</i> , 2002, 124, 3125-3132.	6.6	57
53	Changes in axonal morphology in experimental autoimmune neuritis as studied by high-b-value q-space ¹ H and ² H DQF diffusion magnetic resonance spectroscopy. <i>Magnetic Resonance in Medicine</i> , 2002, 48, 71-81.	1.9	27
54	Mapping the fiber orientation in articular cartilage at rest and under pressure studied by ² H double quantum filtered MRI. <i>Magnetic Resonance in Medicine</i> , 2002, 48, 322-330.	1.9	46

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55	NMR Spectroscopic Characterization of Sarcolemmal Permeability During Myocardial Ischemia and Reperfusion. <i>Journal of Molecular and Cellular Cardiology</i> , 2001, 33, 1421-1433.	0.9	15
56	Excretion of a Phosphorus-Containing Carbohydrate by <i>Streptomyces</i> sp. A50. <i>Journal of Natural Products</i> , 2001, 64, 1538-1540.	1.5	2
57	Multiquantum filters and order in tissues. <i>NMR in Biomedicine</i> , 2001, 14, 112-132.	1.6	139
58	A Study of Dipolar Interactions and Dynamic Processes of Water Molecules in Tendon by ^1H and ^2H Homonuclear and Heteronuclear Multiple-Quantum-Filtered NMR Spectroscopy. <i>Journal of Magnetic Resonance</i> , 1999, 137, 295-310.	1.2	81
59	Anisotropic and restricted diffusion of water in the sciatic nerve: ^2H double-quantum-filtered NMR study. <i>Magnetic Resonance in Medicine</i> , 1999, 42, 461-466.	1.9	21
60	^1H double-quantum-filtered MR imaging as a new tool for assessment of healing of the ruptured Achilles tendon. <i>Magnetic Resonance in Medicine</i> , 1999, 42, 884-889.	1.9	24
61	Efficient Limitation of Intracellular Edema and Sodium Accumulation by Cardioplegia is Dissociated from Recovery of Rat Hearts from Cold Ischemic Storage. <i>Journal of Molecular and Cellular Cardiology</i> , 1999, 31, 1795-1808.	0.9	5
62	Quantification of the Contribution of Extracellular Sodium to ^{23}Na Multiple-Quantum-Filtered NMR Spectra of Suspensions of Human Red Blood Cells. <i>Journal of Magnetic Resonance</i> , 1998, 131, 92-96.	1.2	35
63	Observation of a ^1H double quantum filtered signal of water in biological tissues. <i>Magnetic Resonance in Medicine</i> , 1998, 39, 11-17.	1.9	38
64	Proton double-quantum filtered MRI – A new method for imaging ordered tissues. <i>Magnetic Resonance in Medicine</i> , 1998, 40, 720-726.	1.9	36
65	Intracellular Volumes and Membrane Permeability in Rat Hearts During Prolonged Hypothermic Preservation with St Thomas and University of Wisconsin Solutions. <i>Journal of Molecular and Cellular Cardiology</i> , 1998, 30, 1329-1339.	0.9	12
66	Intermittent Ischemia: Energy Metabolism, Cellular Volume Regulation, Adenosine and Insights into Preconditioning. <i>Journal of Molecular and Cellular Cardiology</i> , 1997, 29, 1715-1730.	0.9	22
67	Comparison of action of the anti-neoplastic drug lonidamine on drug-sensitive and drug-resistant human breast cancer cells: ^{31}P and ^{13}C nuclear magnetic resonance studies. <i>Breast Cancer Research and Treatment</i> , 1997, 43, 15-25.	1.1	15
68	Selective Enhancement of NMR Signals for β -Cyclodextrin with Laser-Polarized Xenon. <i>Angewandte Chemie International Edition in English</i> , 1997, 36, 2368-2370.	4.4	67
69	Selektive NMR-Signalverstärkung bei β -Cyclodextrin durch laserpolarisiertes Xenon. <i>Angewandte Chemie</i> , 1997, 109, 2464-2466.	1.6	9
70	Measurement of strain exerted on blood vessel walls by double-quantum-filtered ^2H NMR. <i>Magnetic Resonance in Medicine</i> , 1997, 37, 69-75.	1.9	18
71	In vivo ^{23}Na NMR studies of myotonic dystrophy. <i>Magnetic Resonance in Medicine</i> , 1997, 37, 192-196.	1.9	40
72	In vivo observation of anisotropic motion of brain water using ^2H double quantum filtered NMR spectroscopy. <i>Magnetic Resonance in Medicine</i> , 1997, 37, 197-203.	1.9	21

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73	Imaging H ₂ O distribution in a phantom and measurement of metabolically produced H ₂ O in live mice by proton NMR. , 1997, 10, 333-340.		23
74	Continuous Monitoring of Intracellular Volumes in Isolated Rat Hearts during Normothermic Perfusion and Ischemia. Journal of Magnetic Resonance, 1997, 124, 42-50.	1.2	29
75	Discrimination between the Different Compartments in Sciatic Nerve by ² H Double-Quantum-Filtered NMR. Journal of Magnetic Resonance, 1997, 129, 98-104.	1.2	35
76	²³ Na Multiple-Quantum-Filtered NMR Study of the Effect of the Cytoskeleton Conformation on the Anisotropic Motion of Sodium Ions in Red Blood Cells. Journal of Magnetic Resonance Series B, 1996, 110, 16-25.	1.6	33
77	Nuclear Magnetic Resonance (NMR) Analysis of Ligand Receptor Interactions: The Cholinergic System – A Model. Critical Reviews in Biochemistry and Molecular Biology, 1996, 31, 273-301.	2.3	19
78	Intracellular Volume Measurement and Detection of Edema: Multinuclear NMR Studies of Intact Rat Hearts during Normothermic Ischemia. Magnetic Resonance in Medicine, 1995, 33, 515-520.	1.9	27
79	³¹ P NMR and triple quantum filtered ²³ Na NMR studies of the effects of inhibition of Na ⁺ /H ⁺ exchange on intracellular sodium and pH in working and ischemic hearts. Magnetic Resonance in Medicine, 1994, 32, 556-564.	1.9	57
80	A new method for proton detection of H ₂ O with potential applications for functional MRI. Magnetic Resonance in Medicine, 1994, 32, 789-793.	1.9	37
81	Complete elimination of the extracellular ²³ Na NMR signal in triple quantum filtered spectra of rat hearts in the presence of shift reagents. Magnetic Resonance in Medicine, 1993, 30, 503-506.	1.9	47
82	Inhibition of Sodium Influx and Improved Preservation of Rat Hearts During Hypothermic Ischemia by Furosemide and Bumetanide: A ²³ Na- and ³¹ P-NMR Study. Journal of Molecular and Cellular Cardiology, 1993, 25, 1403-1411.	0.9	23
83	Single and Multiple Quantum NMR Relaxation Times of Sodium and Potassium in Red Blood Cells. Israel Journal of Chemistry, 1992, 32, 299-304.	1.0	15
84	The formation of a second-rank tensor in ²³ Na double-quantum-filtered NMR as an indicator for order in a biological tissue. Journal of Magnetic Resonance, 1992, 98, 223-229.	0.5	32
85	Determination of absolute values of dipolar cross-relaxation rates for ligands bound to macromolecules using double-selective T ₁ . Magnetic Resonance in Chemistry, 1992, 30, 461-465.	1.1	27
86	Sodium Ion Transport in Rat Hearts during Cold Ischemic Storage: ²³ Na and ³¹ P NMR Study. Magnetic Resonance in Medicine, 1992, 28, 249-263.	1.9	13
87	Acetylcholine interactions with tryptophan-184 of the $\hat{1}\pm$ -subunit of the nicotinic acetylcholine receptor revealed by transferred nuclear Overhauser effect. FEBS Letters, 1991, 291, 225-228.	1.3	14
88	An observation of ²³ Na NMR triple-quantum dynamic shift in solution. Journal of Magnetic Resonance, 1991, 94, 439-444.	0.5	6
89	²³ Na, ⁵⁹ Co and ² H NMR studies of experimental acute pancreatitis. NMR in Biomedicine, 1991, 4, 182-186.	1.6	2
90	Nuclear magnetic resonance line shapes of double and triple quantum coherences of spin 3/2 nuclei. Journal of Chemical Physics, 1991, 95, 7114-7118.	1.2	22

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91	An apparatus for applying a mechanical massage to rat hearts inside a wide-bore NMR spectrometer. <i>Magnetic Resonance in Medicine</i> , 1990, 15, 392-396.	1.9	2
92	Differences in metabolite content between intact pancreases and their perchloric acid extracts. A ² D1H/ ³ 1P correlation NMR study. <i>NMR in Biomedicine</i> , 1990, 3, 220-226.	1.6	14
93	Spectroscopic and solution properties of the cobalt(III) hexaimidazole ion. <i>Inorganic Chemistry</i> , 1989, 28, 1405-1407.	1.9	13
94	Monitoring the transport and phosphorylation of 2-deoxy-D-glucose in tumor cells in vivo and in vitro by ¹³ C nuclear magnetic resonance spectroscopy. <i>FEBS Letters</i> , 1989, 247, 86-90.	1.3	25
95	Nuclear magnetic resonance line shapes of exchanging spin 3/2 nuclei. <i>Journal of Chemical Physics</i> , 1988, 89, 5584-5588.	1.2	22
96	Sodium-23 NMR relaxation times in body fluids. <i>Magnetic Resonance in Medicine</i> , 1986, 3, 927-934.	1.9	31
97	The determination of intracellular water space by NMR. <i>FEBS Letters</i> , 1985, 193, 75-78.	1.3	21
98	NMR relaxation studies of intracellular Na ⁺ in red blood cells. <i>Biophysical Chemistry</i> , 1984, 20, 275-283.	1.5	71
99	NMR Spectroscopy of Bilirubin and its Derivatives. <i>Israel Journal of Chemistry</i> , 1983, 23, 177-186.	1.0	111
100	Carbon-13 nuclear magnetic resonance study of the motional behaviour of bilirubin and of some of its derivatives. <i>Magnetic Resonance in Chemistry</i> , 1981, 17, 79-87.	0.7	23
101	On the assignment of the carbon-13 NMR spectrum of bilirubin. <i>Magnetic Resonance in Chemistry</i> , 1980, 13, 59-62.	0.7	8
102	The carbon-13 NMR spectrum of dimethoxybilirubin dimethyl ester. <i>Magnetic Resonance in Chemistry</i> , 1980, 14, 319-321.	0.7	2
103	Kinetic and Magnetic Properties of Cobalt(III) Ion in the Active Site of Carbonic Anhydrase. <i>FEBS Journal</i> , 1979, 93, 313-322.	0.2	10
104	The effect of spin delocalization on the proton magnetic relaxation in transition metal hexaaquo ions. <i>Journal of Chemical Physics</i> , 1978, 68, 3074-3077.	1.2	23
105	Carbon-13 NMR Spectrum of Bilirubin. <i>Spectroscopy Letters</i> , 1977, 10, 881-892.	0.5	9
106	Nuclear-Magnetic-Resonance Studies of Carboxypeptidase B. Binding of Inhibitors to the Manganese Enzyme. <i>FEBS Journal</i> , 1975, 52, 487-492.	0.2	9
107	Effect of covalency on the electron-nuclear dipolar relaxation in paramagnetic complexes. <i>Journal of Chemical Physics</i> , 1975, 62, 1021-1026.	1.2	26
108	Proton magnetic relaxation in solutions of manganese-carbonic anhydrase. <i>FEBS Letters</i> , 1973, 30, 351-354.	1.3	23

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109	Proton NMR and covalency parameters of ruthenium(III) hexaammine. Journal of Chemical Physics, 1973, 59, 5585-5590.	1.2	16
110	² H Double Quantum Filtered NMR Histology and Diffusion Measurements in Isolated Nerves and Blood Vessels. , 0, , 307-321.		0
111	NMR Imaging of Rigid Biological Tissues. , 0, , 445-457.		3