

# Petrik Galvosas

## List of Publications by Year in descending order

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97  
papers

2,290  
citations

236925

25  
h-index

243625

44  
g-index

103  
all docs

103  
docs citations

103  
times ranked

2079  
citing authors

#	ARTICLE	IF	CITATIONS
1	Oxygen saturation-dependent effects on blood transverse relaxation at low fields. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2022, 35, 805-815.	2.0	4
2	Investigation of flow through triply periodic minimal surface-structured porous media using MRI and CFD. <i>Chemical Engineering Science</i> , 2021, 231, 116264.	3.8	39
3	Enhanced Ca <sup>2+</sup> influx in mechanically distorted erythrocytes measured with <sup>19</sup> F nuclear magnetic resonance spectroscopy. <i>Scientific Reports</i> , 2021, 11, 3749.	3.3	11
4	Quantitative measurement of solid fraction in a silo using SPRITE. <i>Journal of Magnetic Resonance</i> , 2021, 325, 106935.	2.1	4
5	Surface model of the human red blood cell simulating changes in membrane curvature under strain. <i>Scientific Reports</i> , 2021, 11, 13712.	3.3	4
6	Quantitative measurements of flow dynamics in 3D hoppers using MRI. <i>Powder Technology</i> , 2021, 392, 69-80.	4.2	8
7	Quantitative measurement of hopper flow using MRI. <i>EPJ Web of Conferences</i> , 2021, 249, 03006.	0.3	0
8	MAS-NMR of [Pyr13][Tf2N] and [Pyr16][Tf2N] Ionic Liquids Confined to Carbon Black: Insights and Pitfalls. <i>Molecules</i> , 2021, 26, 6690.	3.8	2
9	Influence of contact parameters on Discrete Element method (DEM) simulations of flow from a hopper: Comparison with magnetic resonance imaging (MRI) measurements. <i>Powder Technology</i> , 2020, 372, 671-684.	4.2	16
10	Diffusion Anisotropy Identification by Short Diffusion-Diffusion Correlation Spectroscopy. <i>Mathematics and Visualization</i> , 2020, , 49-59.	0.6	1
11	On the influence of rotational motion on MRI velocimetry of granular flows – Theoretical predictions and comparison to experimental data. <i>Journal of Magnetic Resonance</i> , 2019, 307, 106569.	2.1	4
12	Permeability Profiling of Rock Cores Using a Novel Spatially Resolved NMR Relaxometry Method: Preliminary Results From Sandstone and Limestone. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 4601-4616.	3.4	10
13	Rheo-NMR in food science – Recent opportunities. <i>Magnetic Resonance in Chemistry</i> , 2019, 57, 757-765.	1.9	10
14	Threshold Isocontouring on High b-Value Diffusion-Weighted Images in Magnetic Resonance Mammography. <i>Journal of Computer Assisted Tomography</i> , 2019, 43, 434-442.	0.9	3
15	Evaluation of benchtop NMR Diffusion Ordered Spectroscopy for small molecule mixture analysis. <i>Magnetic Resonance Imaging</i> , 2019, 56, 103-109.	1.8	15
16	Quantifying silo flow using MRI velocimetry for testing granular flow models. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	18
17	Local and global anisotropy - recent re-implementation of 2D ILT diffusion methods. <i>Microporous and Mesoporous Materials</i> , 2018, 269, 71-74.	4.4	3
18	Quantifying NMR relaxation correlation and exchange in articular cartilage with time domain analysis. <i>Journal of Magnetic Resonance</i> , 2018, 287, 82-90.	2.1	11

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19	Proceeding of the 13th international Bologna conference on magnetic resonance in porous media (MRPM13). Microporous and Mesoporous Materials, 2018, 269, 1-2.	4.4	0
20	Emerging NMR approaches for characterizing rock heterogeneity. Microporous and Mesoporous Materials, 2018, 269, 118-121.	4.4	9
21	Single-sided NMR for the diagnosis of osteoporosis: Diffusion weighted pulse sequences for the estimation of trabecular bone volume fraction in the presence of muscle tissue. Microporous and Mesoporous Materials, 2018, 269, 166-170.	4.4	9
22	Bone volume to total volume ratio measured in trabecular bone by single-sided NMR devices. Magnetic Resonance in Medicine, 2018, 79, 501-510.	3.0	18
23	The pseudo 2-D relaxation model for obtaining T1 to T2 relationships from 1-D T1 and T2 measurements of fluid in porous media. Microporous and Mesoporous Materials, 2018, 269, 191-194.	4.4	2
24	Multilamellar Vesicle Formation Probed by Rheo-NMR and Rheo-SALS under Large Amplitude Oscillatory Shear. Langmuir, 2018, 34, 8314-8325.	3.5	15
25	Aging evaluation of asphalt samples with Low Field Nuclear Magnetic Resonance. Materials Characterization, 2017, 128, 165-175.	4.4	24
26	Stability of polyelectrolyte-coated iron nanoparticles for T2-weighted magnetic resonance imaging. Journal of Magnetism and Magnetic Materials, 2017, 439, 251-258.	2.3	18
27	Determining mean fractional anisotropy using DD COSY: preliminary results in biological tissues. Magnetic Resonance in Chemistry, 2017, 55, 498-507.	1.9	13
28	Observations of the influence of Taylor-Couette geometry on the onset of shear-banding in surfactant wormlike micelles. Journal of Rheology, 2016, 60, 973-982.	2.6	17
29	Effect of magnetic pore surface coating on the NMR relaxation and diffusion signal in quartz sand. Magnetic Resonance in Chemistry, 2016, 54, 975-984.	1.9	7
30	Obtaining T1 - T2 distribution functions from 1-dimensional T1 and T2 measurements: The pseudo 2-D relaxation model. Journal of Magnetic Resonance, 2016, 269, 186-195.	2.1	14
31	Fast reconstruction of highly undersampled MR images using one and two dimensional principal component analysis. Magnetic Resonance Imaging, 2016, 34, 227-238.	1.8	5
32	Magnetic-resonance pore imaging of nonsymmetric microscopic pore shapes. Physical Review E, 2015, 92, 012808.	2.1	16
33	Real-time fluid transport characterization through direct acquisition of the averaged propagator. Physical Review E, 2015, 92, 023016.	2.1	3
34	In situ determination of surface relaxivities for unconsolidated sediments. Water Resources Research, 2015, 51, 6549-6563.	4.2	15
35	Anomalous shear banding revisited with Rheo-NMR and Rheo-USV. Rheologica Acta, 2015, 54, 619-636.	2.4	9
36	Pulsed second order fields for parallel acquisition of q-space. Microporous and Mesoporous Materials, 2015, 205, 61-64.	4.4	2

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37	Magnetic Resonance Pore Imaging: Overcoming the resolution limit of MRI for closed pore systems. <i>Microporous and Mesoporous Materials</i> , 2015, 205, 44-47.	4.4	5
38	Advances and artefact suppression in RARE-velocimetry for flow with curved streamlines. <i>Journal of Magnetic Resonance</i> , 2015, 259, 135-145.	2.1	8
39	Symmetry of the gradient profile as second experimental dimension in the short-time expansion of the apparent diffusion coefficient as measured with NMR diffusometry. <i>Journal of Magnetic Resonance</i> , 2015, 259, 10-19.	2.1	10
40	D <sub>2</sub> correlation using the inhomogeneity of single sided NMR devices. <i>Microporous and Mesoporous Materials</i> , 2015, 205, 40-43.	4.4	3
41	Measuring diffusion-relaxation correlation maps using non-uniform field gradients of single-sided NMR devices. <i>Journal of Magnetic Resonance</i> , 2014, 248, 137-145.	2.1	10
42	Parallel acquisition of q-space using second order magnetic fields for single-shot diffusion measurements. <i>Journal of Magnetic Resonance</i> , 2014, 244, 46-52.	2.1	11
43	Determining pore length scales and pore surface relaxivity of rock cores by internal magnetic fields modulation at 2MHz NMR. <i>Journal of Magnetic Resonance</i> , 2014, 246, 110-118.	2.1	44
44	Pulsed second order field NMR for real time PGSE and single-shot surface to volume ratio measurements. <i>Journal of Magnetic Resonance</i> , 2014, 247, 42-49.	2.1	10
45	Diffusion of pentane isomers in faujasite-type zeolites : NMR and molecular dynamics study. <i>Microporous and Mesoporous Materials</i> , 2013, 171, 58-64.	4.4	13
46	Magnetic resonance pore imaging, a tool for porous media research. <i>Physical Review E</i> , 2013, 87, .	2.1	25
47	“Pore-Like” Effects of Super-Molecular Self-Assembly on Molecular Diffusion of Poly(Ethylene) Tj ETQq1 1 0.784314 rgBT /Overlook	2.3	7
48	Transient and Steady-State Shear Banding in a Lamellar Phase as Studied by Rheo-NMR. <i>Zeitschrift Fur Physikalische Chemie</i> , 2012, 226, 1293-1314.	2.8	17
49	Planar lamellae and onions: a spatially resolved rheo-NMR approach to the shear-induced structural transformations in a surfactant model system. <i>Soft Matter</i> , 2011, 7, 4938.	2.7	33
50	Tracing Pore-Space Heterogeneities in X-Type Zeolites by Diffusion Studies. <i>Langmuir</i> , 2011, 27, 416-419.	3.5	6
51	Mobile Aliphatic Domains in Humic Substances and Their Impact on Contaminant Mobility within the Matrix. <i>Environmental Science &amp; Technology</i> , 2011, 45, 5164-5169.	10.0	8
52	Guest Diffusion in Interpenetrating Networks of Micro- and Mesopores. <i>Journal of the American Chemical Society</i> , 2011, 133, 2437-2443.	13.7	30
53	Paramagnetic Relaxation Enhancement (PRE) as a Tool for Probing Diffusion in Environmentally Relevant Porous Media. <i>Environmental Science &amp; Technology</i> , 2011, 45, 8866-8872.	10.0	8
54	MAS PFG NMR Studies of Mixtures in Porous Materials. , 2011, , .		1

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55	Water Flow Investigation on Quartz Sand with 13-interval Stimulated Echo Multi Slice Imaging. , 2011, ,		1
56	NMR velocimetry with 13-interval stimulated echo multi-slice imaging in natural porous media under low flow rates. Journal of Magnetic Resonance, 2011, 212, 216-223.	2.1	14
57	Nanoporous Glass as a Model System for a Consistency Check of the Different Techniques of Diffusion Measurement. ChemPhysChem, 2011, 12, 1130-1134.	2.1	41
58	The evidence of NMR diffusometry on pore space heterogeneity in activated carbon. Microporous and Mesoporous Materials, 2011, 141, 184-191.	4.4	11
59	Mixture diffusion of adsorbed organic compounds in metal-organic frameworks as studied by magic-angle spinning pulsed-field gradient nuclear magnetic resonance. New Journal of Physics, 2011, 13, 045016.	2.9	14
60	Multi-dimensional inverse Laplace spectroscopy in the NMR of porous media. Comptes Rendus Physique, 2010, 11, 172-180.	0.9	55
61	Comment on "Computer Simulation of Static and Dynamic Properties During Transient Sorption of Fluids in Mesoporous Materials" Journal of Physical Chemistry C, 2010, 114, 9187-9188.	3.1	0
62	Self-Assembly and Diffusion of Block Copolymer Templates in SBA-15 Nanochannels. Journal of Physical Chemistry B, 2010, 114, 4223-4229.	2.6	21
63	Intracrystalline Transport Resistances in Nanoporous Zeolite X. ChemPhysChem, 2009, 10, 2429-2433.	2.1	85
64	Diffusion of aromatic guest molecules in zeolite NaX studied by pulsed field gradient NMR. Microporous and Mesoporous Materials, 2009, 120, 98-103.	4.4	13
65	Characterization of carbon materials with the help of NMR methods. Microporous and Mesoporous Materials, 2009, 120, 91-97.	4.4	19
66	Multidimensional NMR diffusion studies in microporous materials. Microporous and Mesoporous Materials, 2009, 125, 30-34.	4.4	24
67	Effects of Self-Assembly on Diffusion Mechanisms of Triblock Copolymers in Aqueous Solution. Physical Review Letters, 2009, 102, 037801.	7.8	26
68	New Option for Characterizing the Mobility of Organic Compounds in Humic Acids. Environmental Science & Technology, 2009, 43, 8264-8269.	10.0	9
69	Robust spatially resolved pressure measurements using MRI with novel buoyant advection-free preparations of stable microbubbles in polysaccharide gels. Journal of Magnetic Resonance, 2008, 193, 159-167.	2.1	18
70	Electrical conductivity and translational diffusion in the 1-butyl-3-methylimidazolium tetrafluoroborate ionic liquid. Journal of Chemical Physics, 2008, 128, 214509.	3.0	115
71	Application of Pulsed Field Gradient NMR with High Gradient Strength for Studies of Self-Diffusion in Lipid Membranes on the Nanoscale. Langmuir, 2008, 24, 7365-7370.	3.5	13
72	Scaling Law of Poly(ethylene oxide) Chain Permeation through a Nanoporous Wall. Journal of Physical Chemistry B, 2008, 112, 13245-13251.	2.6	17

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73	MRI Pressure and Stress Measurement in Novel Homogeneous Soft Solids. , 2008, , .		0
74	Investigation of Molecular Exchange Using DEXSY with Ultra-High Pulsed Field Gradients. , 2008, , .		0
75	Spin Echo NMR Diffusion Studies. Annual Reports on NMR Spectroscopy, 2007, , 51-131.	1.5	108
76	Liquid-phase self-diffusion in hydrating cement pastes " results from NMR studies and perspectives for further research. Cement and Concrete Research, 2007, 37, 398-413.	11.0	43
77	Dynamical aspects of the adsorption hysteresis phenomenon. Magnetic Resonance Imaging, 2007, 25, 481-484.	1.8	11
78	Recent Fourier and Laplace perspectives for multidimensional NMR in porous media. Magnetic Resonance Imaging, 2007, 25, 441-444.	1.8	60
79	On the use of 2D correlation and exchange NMR spectroscopy in organic porous materials. Magnetic Resonance Imaging, 2007, 25, 497-500.	1.8	28
80	Exploration of molecular dynamics during transient sorption of fluids in mesoporous materials. Nature, 2006, 443, 965-968.	27.8	218
81	Selective multi-component diffusion measurement in zeolites by pulsed field gradient NMR. Microporous and Mesoporous Materials, 2006, 90, 271-277.	4.4	27
82	Fast magnetic resonance imaging and velocimetry for liquids under high flow rates. Journal of Magnetic Resonance, 2006, 181, 119-125.	2.1	30
83	Diffusion exchange NMR spectroscopic study of dextran exchange through polyelectrolyte multilayer capsules. Journal of Chemical Physics, 2005, 122, 214912.	3.0	73
84	Diffusion Correlation NMR Spectroscopic Study of Anisotropic Diffusion of Water in Plant Tissues. Biophysical Journal, 2005, 89, 2899-2905.	0.5	58
85	Background gradient suppression in stimulated echo NMR diffusion studies using magic pulsed field gradient ratios. Journal of Magnetic Resonance, 2004, 166, 164-173.	2.1	52
86	Direct Investigation of the Fate of NAPL Contaminations in a Hydrating Cement Matrix by Means of Magnetic Resonance Techniques. Environmental Science & Technology, 2004, 38, 880-885.	10.0	4
87	PFG NMR and internal magnetic field gradients in plant-based materials. Magnetic Resonance Imaging, 2002, 20, 567-573.	1.8	14
88	Self-diffusion studies of pore fluids in unconsolidated sediments by PFG NMR. Journal of Applied Geophysics, 2002, 50, 455-467.	2.1	36
89	The local free volume, glass transition, and ionic conductivity in a polymer electrolyte: A positron lifetime study. Journal of Chemical Physics, 2001, 115, 7260-7270.	3.0	62
90	Direct measurement of water self-diffusion in hardening blast furnace slag cement pastes by means of nuclear magnetic resonance techniques. Journal of Applied Physics, 2001, 90, 518-520.	2.5	5

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91	PFG NMR Study of Diffusion in MFI-Type Zeolites: Evidence of the Existence of Intracrystalline Transport Barriers. <i>Journal of Physical Chemistry B</i> , 2001, 105, 5922-5927.	2.6	108
92	Nuclear Spin Relaxation and Water Self-diffusion in Hardening Magnesium Oxychloride Cement. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 2001, 56, 561-564.	1.5	1
93	NMR studies of water diffusion and relaxation in hydrating slag-based construction materials. <i>Magnetic Resonance Imaging</i> , 2001, 19, 547-548.	1.8	9
94	Determination of Genuine Diffusivities in Heterogeneous Media Using Stimulated Echo Pulsed Field Gradient NMR. <i>Journal of Magnetic Resonance</i> , 2001, 149, 228-233.	2.1	39
95	Generation and Application of Ultra-High-Intensity Magnetic Field Gradient Pulses for NMR Spectroscopy. <i>Journal of Magnetic Resonance</i> , 2001, 151, 260-268.	2.1	154
96	Nuclear magnetic resonance study of diffusion and relaxation in hydrating white cement pastes of different water content. <i>Journal of Applied Physics</i> , 2001, 89, 8061-8065.	2.5	26
97	Anisotropic Diffusion in a Nematic Liquid Crystal An Electric Field PFG NMR Approach. <i>Journal of Magnetic Resonance</i> , 2000, 143, 427-430.	2.1	14