Lynn F Gladden

List of Publications by Year
in descending order

226 papers	8,135 citations	53751 45 h-index	62565 80 g-index
230 all docs	230 docs citations	230 times ranked	6317 citing authors

#	Article	IF	Citations
1	Glycerol eutectics as sustainable solvent systems. Green Chemistry, 2011, 13, 82-90.	4.6	666
2	Fast Multidimensional NMR Spectroscopy Using Compressed Sensing. Angewandte Chemie - International Edition, 2011, 50, 6548-6551.	7.2	241
3	Low-field permanent magnets for industrial process and quality control. Progress in Nuclear Magnetic Resonance Spectroscopy, 2014, 76, 1-60.	3.9	231
4	Molecular and ionic diffusion in aqueous â€“ deep eutectic solvent mixtures: probing inter-molecular interactions using PFG NMR. Physical Chemistry Chemical Physics, 2015, 17, 15297-15304.	1.3	204
5	Flow and dispersion in porous media: Lattice-Boltzmann and NMR studies. AICHE Journal, 1999, 45, 1845-1854.	1.8	187
6	Granular temperature: Comparison of Magnetic Resonance measurements with Discrete Element Model simulations. Powder Technology, 2008, 184, 241-253.	2.1	166
7	Structure-flow correlations in packed beds. Chemical Engineering Science, 1998, 53, 2117-2128.	1.9	142
8	Magnetic resonance imaging in laboratory petrophysical core analysis. Physics Reports, 2013, 526, 165-225.	10.3	141
9	Solvent effects in the hydrogenation of 2-butanone. Journal of Catalysis, 2012, 289, 30-41.	3.1	140
10	Numerical estimation of relaxation and diffusion distributions in two dimensions. Progress in Nuclear Magnetic Resonance Spectroscopy, 2012, 62, 34-50.	3.9	140
11	Magnetic resonance imaging of liquid flow and pore structure within packed beds. Chemical Engineering Science, 1997, 52, 2239-2250.	1.9	130
12	Nuclear magnetic resonance relaxation and diffusion in the presence of internal gradients: The effect of magnetic field strength. Physical Review E, 2010, 81, 026101.	0.8	128
13	Neutron diffraction, NMR and molecular dynamics study of glucose dissolved in the ionic liquid 1-ethyl-3-methylimidazolium acetate. Chemical Science, 2011, 2, 1594.	3.7	121
14	Single- and two-phase flow in fixed-bed reactors: MRI flow visualisation and lattice-Boltzmann simulations. Chemical Engineering Science, 2001, 56, 523-529.	1.9	113
15	Magnetic resonance imaging as a quantitative probe of gasâ€“liquid distribution and wetting efficiency in trickle-bed reactors. Chemical Engineering Science, 2001, 56, 2615-2628.	1.9	108
16	Validation of a discrete element model using magnetic resonance measurements. Particuology, 2009, 7, 297-306.	2.0	105
17	Recent advances in Flow MRI. Journal of Magnetic Resonance, 2013, 229, 2-11.	1.2	103
18	Interpretation of NMR Relaxation as a Tool for Characterising the Adsorption Strength of Liquids inside Porous Materials. Chemistry - A European Journal, 2014, 20, 13009-13015.	1.7	98

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19	Transport heterogeneity in porous pelletsâ€"I. PGSE NMR studies. Chemical Engineering Science, 1995, 50, 309-326.	1.9	93
20	Reducing data acquisition times in phase-encoded velocity imaging using compressed sensing. Journal of Magnetic Resonance, 2010, 203, 236-246.	1.2	93
21	Comparing Strengths of Surface Interactions for Reactants and Solvents in Porous Catalysts Using Two-Dimensional NMR Relaxation Correlations. Journal of Physical Chemistry C, 2009, 113, 6610-6615.	1.5	92
22	Investigation of Void Fraction Schemes for Use with CFD-DEM Simulations of Fluidized Beds. Industrial & Engineering Chemistry Research, 2018, 57, 3002-3013.	1.8	91
23	The Disintegration Process in Microcrystalline Cellulose Based Tablets, Part 1: Influence of Temperature, Porosity and Superdisintegrants. Journal of Pharmaceutical Sciences, 2015, 104, 3440-3450.	1.6	85
24	Magnetic resonance velocity imaging of liquid and gas two-phase flow in packed beds. Journal of Magnetic Resonance, 2009, 196, 142-148.	1.2	82
25	Quantitative nuclear magnetic resonance measurements of preasymptotic dispersion in flow through porous media. Physics of Fluids, 2005, 17, 117107.	1.6	81
26	Correlations between dispersion and structure in porous media probed by nuclear magnetic resonance. Physics of Fluids, 1999, 11, 259-267.	1.6	78
27	Local transitions in flow phenomena through packed beds identified by MRI. AICHE Journal, 2000, 46, 2151-2161.	1.8	78
28	MRI technique for measurement of velocity vectors, acceleration, and autocorrelation functions in turbulent flow. Journal of Magnetic Resonance, 2004, 166, 182-189.	1.2	77
29	Real-Time Measurement of Bubbling Phenomena in a Three-Dimensional Gas-Fluidized Bed Using Ultrafast Magnetic Resonance Imaging. Physical Review Letters, 2006, 96, 154504.	2.9	74
30	Magnetic resonance: Ongoing and future role in chemical engineering research. AICHE Journal, 2003, 49, 2-9.	1.8	71
31	Quantitative Ultra-Fast MRI of HPMC Swelling and Dissolution. Journal of Pharmaceutical Sciences, 2010, 99, 3462-3472.	1.6	71
32	Dynamic MRI visualization of two-phase flow in a ceramic monolith. AICHE Journal, 2002, 48, 909-912.	1.8	70
33	Spatially resolved measurement of anisotropic granular temperature in gas-fluidized beds. Powder Technology, 2008, 182, 171-181.	2.1	70
34	Measuring adsorption, diffusion and flow in chemical engineering: applications of magnetic resonance to porous media. New Journal of Physics, 2011, 13, 035001.	1.2	68
35	In situ magnetic resonance visualisation of the spatial variation of catalytic conversion within a fixed-bed reactor. Applied Catalysis A: General, 2002, 232, 29-38.	2.2	66
36	Obtaining true transverse relaxation time distributions in high-field NMR measurements of saturated porous media: Removing the influence of internal gradients. Journal of Chemical Physics, 2010, 132, 244705.	1.2	66

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37	Hydrogen Bonding Network Disruption in Mesoporous Catalyst Supports Probed by PFG-NMR Diffusometry and NMR Relaxometry. Journal of Physical Chemistry C, 2012, 116, 8975-8982.	1.5	65
38	In Situ MRI Study of 1-octene Isomerisation and Hydrogenation within a Trickle-bed Reactor. Catalysis Letters, 2005, 103, 1-8.	1.4	64
39	NMR imaging of the wheat grain cooking process. International Journal of Food Science and Technology, 1997, 32, 355-375.	1.3	59
40	Transport heterogeneity in porous pelletsâ€"II. NMR imaging studies under transient and steady-state conditions. Chemical Engineering Science, 1995, 50, 327-344.	1.9	58
41	Exploring the Origins of Turbulence in Multiphase Flow Using Compressed Sensing MRI. Physical Review Letters, 2012, 108, 264505.	2.9	57
42	Surface diffusion in porous catalysts. Physical Chemistry Chemical Physics, 2010, 12, 2619.	1.3	54
43	Mechanism of the trickle-to-pulse flow transition in fixed-bed reactors. AICHE Journal, 2006, 52, 1522-1532.	1.8	50
44	Understanding the Solvent Effect on the Catalytic Oxidation of 1,4â€Butanediol in Methanol over Au/TiO₂ Catalyst: NMR Diffusion and Relaxation Studies. Chemistry - A European Journal, 2012, 18, 14426-14433.	1.7	50
45	Diffusion, Ion Pairing and Aggregation in 1â€Ethylâ€3â€Methylimidazoliumâ€Based Ionic Liquids Studied by ¹H and ¹⁹F PFG NMR: Effect of Temperature, Anion and Glucose Dissolution. ChemPhysChem, 2018, 19, 1081-1088.	1.0	50
46	Magnetic resonance visualisation of single- and two-phase flow in porous media. Magnetic Resonance Imaging, 2001, 19, 339-343.	1.0	48
47	Prediction of binary diffusion coefficients in non-ideal mixtures from NMR data: Hexaneâ€"nitrobenzene near its consolute point. Chemical Engineering Science, 2011, 66, 3898-3906.	1.9	48
48	Characterization of structural inhomogeneities in porous media. AICHE Journal, 1995, 41, 894-906.	1.8	46
49	Characterization of Crystalline Phaseâ€Transformations in Theophylline by Timeâ€Domain Terahertz Spectroscopy. Spectroscopy Letters, 2006, 39, 215-224.	0.5	46
50	Solvent Effect and Reactivity Trend in the Aerobic Oxidation of 1,3â€Propanediols over Gold Supported on Titania: NMR Diffusion and Relaxation Studies. Chemistry - A European Journal, 2013, 19, 11725-11732.	1.7	46
51	Assessing the surface modifications following the mechanochemical preparation of a Ag/Al₂O₃ selective catalytic reduction catalyst. Catalysis Science and Technology, 2014, 4, 531-539.	2.1	46
52	Solvent inhibition in the liquid-phase catalytic oxidation of 1,4-butanediol: understanding the catalyst behaviour from NMR relaxation time measurements. Catalysis Science and Technology, 2016, 6, 7896-7901.	2.1	46
53	Magnetic resonance imaging of structure and convection in solidifying mushy layers. Journal of Fluid Mechanics, 2006, 552, 99.	1.4	43
54	Comparison of ECVT and MR Measurements of Voidage in a Gas-Fluidized Bed. Industrial & Engineering Chemistry Research, 2009, 48, 172-181.	1.8	43

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55	CFD modeling of singleâ€phase flow in a packed bed with MRI validation. AICHE Journal, 2012, 58, 3904-3915.	1.8	43
56	Do group 1 metal salts form deep eutectic solvents?. Physical Chemistry Chemical Physics, 2016, 18, 25528-25537.	1.3	43
57	Gravitational collapse of depletion-induced colloidal gels. Soft Matter, 2016, 12, 4300-4308.	1.2	43
58	Recent Advances in MRI Studies of Chemical Reactors: Ultrafast Imaging of Multiphase Flows. Topics in Catalysis, 2003, 24, 19-28.	1.3	42
59	Validation of NMR relaxation exchange time measurements in porous media. Journal of Chemical Physics, 2007, 127, 234701.	1.2	42
60	Applications of ultra-fast MRI to high voidage bubbly flow: Measurement of bubble size distributions, interfacial area and hydrodynamics. Chemical Engineering Science, 2012, 71, 468-483.	1.9	41
61	Impact of Processing Conditions on Inter-tablet Coating Thickness Variations Measured by Terahertz In-Line Sensing. Journal of Pharmaceutical Sciences, 2015, 104, 2513-2522.	1.6	41
62	Diffusion and reaction in whole wheat grains during boiling. AICHE Journal, 1998, 44, 1777-1789.	1.8	40
63	Rapid two-dimensional imaging of bubbles and slugs in a three-dimensional, gas-solid, two-phase flow system using ultrafast magnetic resonance. Physical Review E, 2007, 75, 020302.	0.8	40
64	Rapid encoding of with spectral resolution in n-dimensional relaxation correlations. Journal of Magnetic Resonance, 2008, 194, 156-161.	1.2	40
65	Quantitative single point imaging with compressed sensing. Journal of Magnetic Resonance, 2009, 201, 72-80.	1.2	40
66	Direct Correlation between Adsorption Energetics and Nuclear Spin Relaxation in a Liquidâ€saturated Catalyst Material. ChemPhysChem, 2018, 19, 2472-2479.	1.0	40
67	Synergistic Contribution of the Acidic Metal Oxideâ€“Metal Couple and Solvent Environment in the Selective Hydrogenolysis of Glycerol: A Combined Experimental and Computational Study Using ReO_xâ€“Ir as the Catalyst. ACS Catalysis, 2019, 9, 485-503.	5.5	40
68	Simultaneous monitoring of hydration kinetics, microstructural evolution, and surface interactions in hydrating gypsum plaster in the presence of additives. Journal of Materials Science, 2010, 45, 5282-5290.	1.7	39
69	MRI Studies of the Hydrodynamics in a USP 4 Dissolution Testing Cell. Journal of Pharmaceutical Sciences, 2011, 100, 976-991.	1.6	38
70	Exploring Surface Interactions in Catalysts Using Low-Field Nuclear Magnetic Resonance. Journal of Physical Chemistry C, 2013, 117, 17699-17706.	1.5	38
71	Determining NMR flow propagator moments in porous rocks without the influence of relaxation. Journal of Magnetic Resonance, 2008, 193, 218-225.	1.2	36
72	Measurement of cytoplasmic streaming in single plant cells by magnetic resonance velocimetry. Journal of Fluid Mechanics, 2010, 642, 5-14.	1.4	36

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73	Magnetic resonance characterization of coupled gas and particle dynamics in a bubbling fluidized bed. Physical Review Fluids, 2016, 1, .	1.0	36
74	In situ study of reaction kinetics using compressed sensing NMR. Chemical Communications, 2014, 50, 14137-14140.	2.2	35
75	Deactivation studies of a carbon supported AuPt nanoparticulate catalyst in the liquid-phase aerobic oxidation of 1,2-propanediol. Catalysis Science and Technology, 2014, 4, 1313-1322.	2.1	34
76	Magnetic Resonance Imaging of Catalysts and Catalytic Processes. Advances in Catalysis, 2006, , 1-75.	0.1	33
77	Applications of in situ magnetic resonance techniques in chemical reaction engineering. Topics in Catalysis, 1999, 8, 87-95.	1.3	32
78	Time resolved velocity measurements of unsteady systems using spiral imaging. Journal of Magnetic Resonance, 2011, 211, 1-10.	1.2	32
79	Assessing the effect of reducing agents on the selective catalytic reduction of NO_x over Ag/Al₂O₃ catalysts. Catalysis Science and Technology, 2016, 6, 1661-1666.	2.1	32
80	Transition to pulsing flow in trickle-bed reactors studied using MRI. AICHE Journal, 2005, 51, 615-621.	1.8	31
81	Terahertz pulsed spectroscopic imaging using optimized binary masks. Applied Physics Letters, 2009, 95, 231112.	1.5	31
82	Less is More: How Compressed Sensing is Transforming Metrology in Chemistry. Angewandte Chemie - International Edition, 2014, 53, 13330-13340.	7.2	31
83	The effect of coke deposition on the activity and selectivity of the HZSM-5 zeolite during ethylbenzene alkylation reaction in the presence of ethanol. Catalysis Science and Technology, 2014, 4, 1017.	2.1	31
84	In situ magnetic resonance measurement of conversion, hydrodynamics and mass transfer during single- and two-phase flow in fixed-bed reactors. Magnetic Resonance Imaging, 2003, 21, 213-219.	1.0	30
85	A rapid measurement of flow propagators in porous rocks. Journal of Magnetic Resonance, 2008, 191, 267-272.	1.2	30
86	A new perspective on catalytic dehydrogenation of ethylbenzene: the influence of side-reactions on catalytic performance. Catalysis Science and Technology, 2015, 5, 3782-3797.	2.1	30
87	Structure and dynamics of aqueous 2-propanol: a THz-TDS, NMR and neutron diffraction study. Physical Chemistry Chemical Physics, 2015, 17, 30481-30491.	1.3	29
88	Spatially resolved quantification of metal ion concentration in a biofilmâ€mediated ion exchanger. Biotechnology and Bioengineering, 2008, 99, 821-829.	1.7	28
89	Quantitative measurements of liquid holdup and drainage in foam using NMRI. AICHE Journal, 2007, 53, 290-296.	1.8	27
90	Geometrical and hydrodynamical study of gas jets in packed and fluidized beds using magnetic resonance. Canadian Journal of Chemical Engineering, 2009, 87, 517-525.	0.9	27

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91	A Bayesian approach to characterising multi-phase flows using magnetic resonance: Application to bubble flows. Journal of Magnetic Resonance, 2011, 209, 83-87.	1.2	27
92	Magnetic Resonance Imaging and Velocity Mapping in Chemical Engineering Applications. Annual Review of Chemical and Biomolecular Engineering, 2017, 8, 227-247.	3.3	26
93	Nonâ€invasive mass transfer measurements in complex biofilmâ€coated structures. Biotechnology and Bioengineering, 2008, 101, 602-608.	1.7	25
94	Atomic charge distribution in sodosilicate glasses from terahertz time-domain spectroscopy. Physical Review B, 2010, 82, .	1.1	25
95	Obtaining sparse distributions in 2D inverse problems. Journal of Magnetic Resonance, 2017, 281, 188-198.	1.2	25
96	Measurement of the true transverse nuclear magnetic resonance relaxation in the presence of field gradients. Journal of Chemical Physics, 2013, 139, 074205.	1.2	24
97	Changes in the gelation mechanism of whey protein concentrate with pH and temperature. Journal of Dairy Research, 1994, 61, 71-81.	0.7	23
98	Characterizing the Evolution of Porosity during Controlled Drug Release. Applied Magnetic Resonance, 2007, 32, 185-204.	0.6	23
99	Magnetic resonance in reaction engineering: beyond spectroscopy. Current Opinion in Chemical Engineering, 2013, 2, 331-337.	3.8	23
100	Degradation and drug-release studies of a poly(glycolide-co-trimethylene carbonate) copolymer (Maxon). Journal of Applied Polymer Science, 2005, 95, 475-486.	1.3	22
101	Magnetic Resonance Studies of Fluidization Regimes. Industrial & Engineering Chemistry Research, 2010, 49, 5891-5899.	1.8	22
102	Magnetic resonance velocity imaging of gas flow in a diesel particulate filter. Chemical Engineering Science, 2017, 158, 490-499.	1.9	22
103	Probing chemistry and kinetics of reactions in heterogeneous catalysts. Chemical Science, 2013, 4, 3484.	3.7	21
104	MRI strategies for characterising two-phase flow in parallel channel ceramic monoliths. Catalysis Today, 2007, 128, 3-12.	2.2	20
105	Flow through an evolving porous mediaâ€"compressed foam. Journal of Materials Science, 2007, 42, 6541-6548.	1.7	20
106	Operando magnetic resonance: monitoring the evolution of conversion and product distribution during the heterogeneous catalytic ethene oligomerisation reaction. Chemical Communications, 2013, 49, 10519.	2.2	20
107	Fast imaging of laboratory core floods using 3D compressed sensing RARE MRI. Journal of Magnetic Resonance, 2016, 270, 187-197.	1.2	20
108	In Situ Chemically-Selective Monitoring of Multiphase Displacement Processes in a Carbonate Rock Using 3D Magnetic Resonance Imaging. Transport in Porous Media, 2018, 121, 15-35.	1.2	20

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109	Product Inhibition in Glycerol Oxidation over Au/TiO₂ Catalysts Quantified by NMR Relaxation. ACS Catalysis, 2018, 8, 7334-7339.	5.5	20
110	Magnetic resonance studies of hydration kinetics and microstructural evolution in plaster pastes. Journal of Materials Science, 2009, 44, 5004-5012.	1.7	19
111	Rapid measurement of transient velocity evolution using GERVAIS. Journal of Magnetic Resonance, 2010, 202, 93-101.	1.2	19
112	The enhancement of the catalytic performance of CrO_x/Al₂O₃ catalysts for ethylbenzene dehydrogenation through tailored coke deposition. Catalysis Science and Technology, 2016, 6, 1120-1133.	2.1	19
113	NMR relaxation in porous materials at zero and ultralow magnetic fields. Journal of Magnetic Resonance, 2018, 297, 1-8.	1.2	19
114	The influence of the random sequential adsorption of binary mixtures on the kinetics of hydrocarbon hydrogenation reactions. Journal of Chemical Physics, 1999, 110, 4000-4008.	1.2	18
115	NMR measurements and hydrodynamic simulations of phase-resolved velocity distributions within a three-dimensional vibrofluidized granular bed. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 2519-2542.	1.0	18
116	Bubble size measurement using Bayesian magnetic resonance. Chemical Engineering Science, 2012, 84, 735-745.	1.9	18
117	Grain Sizing in Porous Media using Bayesian Magnetic Resonance. Physical Review Letters, 2013, 110, 018001.	2.9	18
118	Operando magnetic resonance studies of phase behaviour and oligomer accumulation within catalyst pores during heterogeneous catalytic ethene oligomerization. Applied Catalysis A: General, 2018, 557, 125-134.	2.2	18
119	Using MR techniques to probe permeability reduction in rock cores. AICHE Journal, 2003, 49, 1076-1084.	1.8	16
120	Effect of paramagnetic species on T₁, T₂ and T₁/T₂ NMR relaxation times of liquids in porous CuSO₄/Al₂O₃. RSC Advances, 2017, 7, 36163-36167.	1.7	16
121	Magnetic resonance imaging of single- and two-phase flow in fixed-bed reactors. Applied Magnetic Resonance, 2002, 22, 201.	0.6	15
122	Quantifying transport within a porous medium over a hierarchy of length scales. Physics of Fluids, 2006, 18, 033102.	1.6	15
123	Liquid Structure and Dynamics of Aqueous Isopropanol over Î³-Alumina. Journal of Physical Chemistry C, 2009, 113, 21342-21352.	1.5	15
124	Overhauser dynamic nuclear polarization amplification of NMR flow imaging. Journal of Magnetic Resonance, 2012, 216, 94-100.	1.2	15
125	Ultralow-field nuclear magnetic resonance of liquids confined in ferromagnetic and paramagnetic materials. Applied Physics Letters, 2019, 115, .	1.5	15
126	Numerical and experimental studies of gas flow in a particulate filter. Chemical Engineering Science, 2019, 209, 115179.	1.9	15

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127	In situ reaction monitoring in heterogeneous catalysts by a benchtop NMR spectrometer. Magnetic Resonance Imaging, 2019, 56, 138-143.	1.0	15
128	A differential scanning calorimetry study of wheat grain cooking. International Journal of Food Science and Technology, 1997, 32, 473-486.	1.3	14
129	Quantitative â€˜real-timeâ€™ imaging of multi-phase flow in ceramic monoliths. Magnetic Resonance Imaging, 2003, 21, 359-361.	1.0	14
130	Rapid imaging of fluid flow patterns in a narrow packed bed using MRI. Magnetic Resonance Imaging, 2005, 23, 391-393.	1.0	14
131	Accelerating flow propagator measurements for the investigation of reactive transport in porous media. Journal of Magnetic Resonance, 2016, 272, 68-72.	1.2	14
132	Insights into Functionality-Specific Adsorption Dynamics and Stable Reaction Intermediates Using Fast Field Cycling NMR. Journal of Physical Chemistry C, 2018, 122, 20271-20278.	1.5	14
133	Scalar relaxation of NMR transitions at ultralow magnetic field. Journal of Magnetic Resonance, 2019, 298, 101-106.	1.2	14
134	NMR Imaging of nonaqueous-phase liquid dissolution in a porous medium. AICHE Journal, 1996, 42, 1341-1349.	1.8	13
135	Displacement propagators of brine flowing within different types of sedimentary rock. Magnetic Resonance Imaging, 2005, 23, 349-351.	1.0	13
136	A cumulant analysis for non-Gaussian displacement distributions in Newtonian and non-Newtonian flows through porous media. Magnetic Resonance Imaging, 2007, 25, 513-516.	1.0	13
137	Enhanced 13C PFG NMR for the study of hydrodynamic dispersion in porous media. Journal of Magnetic Resonance, 2007, 186, 160-165.	1.2	13
138	Magnetic resonance imaging of fluidized beds: Recent advances. Theoretical Foundations of Chemical Engineering, 2008, 42, 469-478.	0.2	13
139	Operando determination of the liquid-solid mass transfer coefficient during 1-octene hydrogenation. Chemical Engineering Science, 2017, 171, 614-624.	1.9	13
140	The Properties of HPMC:PEO Extended Release Hydrophilic Matrices and their Response to Ionic Environments. Pharmaceutical Research, 2017, 34, 941-956.	1.7	13
141	An NMR pulsed field gradient study of the electrical and conventional heating of carrot. International Journal of Food Science and Technology, 1995, 30, 639-654.	1.3	12
142	Monitoring water transport between pores and voids in aerated gypsum using two-dimensional nuclear magnetic resonance exchange measurements. Journal Physics D: Applied Physics, 2012, 45, 105302.	1.3	12
143	MRI technique for the snapshot imaging of quantitative velocity maps using RARE. Journal of Magnetic Resonance, 2012, 216, 183-191.	1.2	12
144	Characterising the rheology of non-Newtonian fluids using PFG-NMR and cumulant analysis. Journal of Magnetic Resonance, 2015, 255, 122-131.	1.2	12

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145	A kinetic analysis methodology to elucidate the roles of metal, support and solvent for the hydrogenation of 4-phenyl-2-butanone over Pt/TiO2. Journal of Catalysis, 2015, 330, 362-373.	3.1	12
146	Quantification of the Number of Silanol Groups in Silicalite and Mesoporous MCM-41: Use of Ft-Raman Spectroscopy. Spectroscopy Letters, 2000, 33, 569-584.	0.5	11
147	Magnetic resonance measurements of high-velocity particle motion in a three-dimensional gas-solid spouted bed. Physical Review E, 2010, 82, 050302.	0.8	11
148	Retaining both discrete and smooth features in 1D and 2D NMR relaxation and diffusion experiments. Journal of Magnetic Resonance, 2017, 284, 39-47.	1.2	11
149	A Monte Carlo study of temperatureâ€programmed desorption from supportedâ€metal catalysts. Catalysis Letters, 1998, 55, 1-6.	1.4	10
150	`Looking into' chemical products and processes. Current Applied Physics, 2004, 4, 93-97.	1.1	10
151	Terahertz time-domain spectroscopy of crushed wheat grain. , 2005, , .		10
152	Quantitative moisture content detection in food wafers. , 2009, , .		10
153	Multi-scale magnetic resonance measurements and validation of Discrete Element Model simulations. Particuology, 2011, 9, 330-341.	2.0	10
154	Experimental evidence of velocity profile inversion in developing laminar flow using magnetic resonance velocimetry. Journal of Fluid Mechanics, 2018, 851, 545-557.	1.4	10
155	Acquisition of spatially-resolved displacement propagators using compressed sensing APGSTE-RARE MRI. Journal of Magnetic Resonance, 2018, 295, 45-56.	1.2	10
156	Enabling High Spectral Resolution of Liquid Mixtures in Porous Media by Antidiagonal Projections of Two-Dimensional ¹H NMR COSY Spectra. Journal of Physical Chemistry Letters, 2019, 10, 5781-5785.	2.1	10
157	Polarisation enhanced 13C magnetic resonance studies of the hydrogenation of pentene over Pd/Al2O3 catalysts. Catalysis Today, 2006, 114, 412-417.	2.2	9
158	Quantification of emulsified water content in oil using a terahertz quantum cascade laser. , 2009, , .		9
159	Magnetic resonance imaging studies of spontaneous capillary water imbibition in aerated gypsum. Journal Physics D: Applied Physics, 2011, 44, 115403.	1.3	9
160	Extending the use of Earthâ€™s Field NMR using Bayesian methodology: Application to particle sizing. Journal of Magnetic Resonance, 2012, 222, 44-52.	1.2	9
161	A General approach to <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si10.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mi>T</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></ measurements in the presence of internal gradients. Microporous and Mesoporous Materials, 2013, 178, 20-22.	2.2	9
162	Ultrafast magnetic-resonance-imaging velocimetry of liquid-liquid systems: Overcoming chemical-shift artifacts using compressed sensing. Physical Review E, 2014, 89, 063009.	0.8	9

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163	Modelling and upscaling of transport in carbonates during dissolution: Validation and calibration with NMR experiments. Journal of Contaminant Hydrology, 2018, 212, 85-95.	1.6	9
164	Identification of sampling patterns for highâ€resolution compressed sensing MRI of porous materials: â€˜learningâ€™ from Xâ€ray microcomputed tomography data. Journal of Microscopy, 2019, 276, 63-81.	0.8	9
165	Water-wax behaviour in porous silica at low temperature Fischer-Tropsch conditions. Applied Catalysis A: General, 2019, 572, 142-150.	2.2	9
166	Measuring velocity and turbulent diffusivity in wall-flow filters using compressed sensing magnetic resonance. Chemical Engineering Journal, 2019, 377, 119690.	6.6	9
167	Characterizing Solidâ€“Liquid Interactions in a Mesoporous Catalyst Support Using Variable-Temperature Fast Field Cycling NMR. Journal of Physical Chemistry C, 2021, 125, 8767-8778.	1.5	9
168	â€˜Snap-shotâ€™ velocity vector mapping using echo-planar imaging. Journal of Magnetic Resonance, 2010, 204, 266-272.	1.2	8
169	Interactions of binary liquid mixtures with polysaccharides studied using multi-dimensional NMR relaxation time measurements. Polymer, 2010, 51, 4103-4109.	1.8	8
170	Quantitative mapping of chemical compositions with MRI using compressed sensing. Journal of Magnetic Resonance, 2015, 261, 27-37.	1.2	8
171	Validation of a low field Rheo-NMR instrument and application to shear-induced migration of suspended non-colloidal particles in Couette flow. Journal of Magnetic Resonance, 2018, 286, 30-35.	1.2	8
172	An integrated total neutron scattering â€“ NMR approach for the study of heterogeneous catalysis. Chemical Communications, 2018, 54, 10191-10194.	2.2	8
173	Terahertz pulsed imaging of surface variations on pharmaceutical tablets. , 2010, , .		7
174	Understanding the operation and preparation of diesel particulate filters using a multi-faceted nuclear magnetic resonance approach. Catalysis Today, 2013, 216, 104-110.	2.2	7
175	Determining adsorbate configuration on alumina surfaces with ¹³C nuclear magnetic resonance relaxation time analysis. Physical Chemistry Chemical Physics, 2015, 17, 20830-20839.	1.3	7
176	Determination of toluene hydrogenation kinetics with neutron diffraction. Physical Chemistry Chemical Physics, 2016, 18, 17237-17243.	1.3	7
177	Insights into adsorption behaviour of binary liquid mixtures in porous media using fast field cycling NMR. Magnetic Resonance Imaging, 2019, 56, 57-62.	1.0	7
178	Under-sampling and compressed sensing of 3D spatially-resolved displacement propagators in porous media using APGSTE-RARE MRI. Magnetic Resonance Imaging, 2019, 56, 24-31.	1.0	7
179	In situ high-pressure ¹³C/¹H NMR reaction studies of benzyl alcohol oxidation over a Pd/Al₂O₃ catalyst. Reaction Chemistry and Engineering, 2020, 5, 1053-1057.	1.9	7
180	Characterizing pore-scale structure-flow correlations in sedimentary rocks using magnetic resonance imaging. Physical Review E, 2021, 103, 023104.	0.8	7

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181	Spatially-resolved 1H NMR relaxation-exchange measurements in heterogeneous media. Journal of Magnetic Resonance, 2019, 299, 101-108.	1.2	6
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