# Lynn F Gladden

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 206 papers | 6,646 citations | 43 h-index | 72 g-index |
| 230 ext. papers | 7,382 ext. citations | 4.3 avg, IF | 5.96 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 206 | A simple liquid state H NMR measurement to directly determine the surface hydroxyl density of porous silica. *Chemical Communications*, **2021**, 57, 12804-12807 | 5.8 | |
| 205 | Measuring the liquid-solid mass transfer coefficient in packed beds using T2-T2 relaxation exchange NMR. *Chemical Engineering Science*, **2021**, 248, 117229 | 4.4 | 1 |
| 204 | A continuous time random walk method to predict dissolution in porous media based on validation of experimental NMR data. *Advances in Water Resources*, **2021**, 149, 103847 | 4.7 | 1 |
| 203 | Characterizing Solid□iquid Interactions in a Mesoporous Catalyst Support Using Variable-Temperature Fast Field Cycling NMR. *Journal of Physical Chemistry C*, **2021**, 125, 8767-8778 | 3.8 | 4 |
| 202 | Joint Phase Reconstruction and Magnitude Segmentation from Velocity-Encoded MRI Data **2021**, 1-24 | | 2 |
| 201 | Characterizing pore-scale structure-flow correlations in sedimentary rocks using magnetic resonance imaging. *Physical Review E*, **2021**, 103, 023104 | 2.4 | 3 |
| 200 | Insights into Automotive Particulate Filters using Magnetic Resonance Imaging : Understanding filter drying in the manufacturing process and the effect of particulate matter on filter operation and fluid dynamics. *Johnson Matthey Technology Review*, **2020**, 64, 165-179 | 2.5 | 1 |
| 199 | Determination of Carbon Number Distributions of Mixtures of Linear Hydrocarbons Confined within Porous Media Using Pulsed Field Gradient NMR. *Analytical Chemistry*, **2020**, 92, 5125-5133 | 7.8 | 1 |
| 198 | Experimental Determination of H and CO Diffusion Coefficients in a Wax Mixture Confined in a Porous Titania Catalyst Support. *Journal of Physical Chemistry B*, **2020**, 124, 10971-10982 | 3.4 | 0 |
| 197 | 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 | 4.9 | 4 |
| 196 | Numerical and experimental studies of gas flow in a particulate filter. *Chemical Engineering Science*, **2019**, 209, 115179 | 4.4 | 8 |
| 195 | Enabling High Spectral Resolution of Liquid Mixtures in Porous Media by Antidiagonal Projections of Two-Dimensional H NMR COSY Spectra. *Journal of Physical Chemistry Letters*, **2019**, 10, 5781-5785 | 6.4 | 6 |
| 194 | Ultralow-field nuclear magnetic resonance of liquids confined in ferromagnetic and paramagnetic materials. *Applied Physics Letters*, **2019**, 115, 072409 | 3.4 | 8 |
| 193 | Identification of sampling patterns for high-resolution compressed sensing MRI of porous materials: Learning from X-ray microcomputed tomography data. *Journal of Microscopy*, **2019**, 276, 63-81 | 1.9 | 4 |
| 192 | Insights into adsorption behaviour of binary liquid mixtures in porous media using fast field cycling NMR. *Magnetic Resonance Imaging*, **2019**, 56, 57-62 | 3.3 | 3 |
| 191 | Water-wax behaviour in porous silica at low temperature Fischer-Tropsch conditions. *Applied Catalysis A: General*, **2019**, 572, 142-150 | 5.1 | 5 |
| 190 | Measuring velocity and turbulent diffusivity in wall-flow filters using compressed sensing magnetic resonance. *Chemical Engineering Journal*, **2019**, 377, 119690 | 14.7 | 3 |

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| 189 | Spatially-resolved H NMR relaxation-exchange measurements in heterogeneous media. *Journal of Magnetic Resonance*, **2019**, 299, 101-108 | 3 | 3 |
| 188 | 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 | 3.3 | 6 |
| 187 | Synergistic Contribution of the Acidic Metal Oxide–Metal Couple and Solvent Environment in the Selective Hydrogenolysis of Glycerol: A Combined Experimental and Computational Study Using ReOx– as the Catalyst. *ACS Catalysis*, **2019**, 9, 485-503 | 13.1 | 31 |
| 186 | Scalar relaxation of NMR transitions at ultralow magnetic field. *Journal of Magnetic Resonance*, **2019**, 298, 101-106 | 3 | 8 |
| 185 | In situ reaction monitoring in heterogeneous catalysts by a benchtop NMR spectrometer. *Magnetic Resonance Imaging*, **2019**, 56, 138-143 | 3.3 | 10 |
| 184 | Fast spatially-resolved T measurements with constant-gradient CPMG. *Magnetic Resonance Imaging* , **2019**, 56, 70-76 | 3.3 | 2 |
| 183 | Investigation of Void Fraction Schemes for Use with CFD-DEM Simulations of Fluidized Beds. *Industrial & Engineering Chemistry Research*, **2018**, 57, 3002-3013 | 3.9 | 43 |
| 182 | Diffusion, Ion Pairing and Aggregation in 1-Ethyl-3-Methylimidazolium-Based Ionic Liquids Studied by H and F PFG NMR: Effect of Temperature, Anion and Glucose Dissolution. *ChemPhysChem*, **2018**, 19, 1081-1088 | 3.2 | 36 |
| 181 | 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 | 3 | 5 |
| 180 | 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 | 5.1 | 12 |
| 179 | Modelling and upscaling of transport in carbonates during dissolution: Validation and calibration with NMR experiments. *Journal of Contaminant Hydrology*, **2018**, 212, 85-95 | 3.9 | 7 |
| 178 | Experimental evidence of velocity profile inversion in developing laminar flow using magnetic resonance velocimetry. *Journal of Fluid Mechanics*, **2018**, 851, 545-557 | 3.7 | 8 |
| 177 | Acquisition of spatially-resolved displacement propagators using compressed sensing APGSTE-RARE MRI. *Journal of Magnetic Resonance*, **2018**, 295, 45-56 | 3 | 9 |
| 176 | An integrated total neutron scattering - NMR approach for the study of heterogeneous catalysis. *Chemical Communications*, **2018**, 54, 10191-10194 | 5.8 | 6 |
| 175 | Product Inhibition in Glycerol Oxidation over Au/TiO2 Catalysts Quantified by NMR Relaxation. *ACS Catalysis*, **2018**, 8, 7334-7339 | 13.1 | 15 |
| 174 | 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 | 3.1 | 14 |
| 173 | Direct Correlation between Adsorption Energetics and Nuclear Spin Relaxation in a Liquid-saturated Catalyst Material. *ChemPhysChem*, **2018**, 19, 2448-2448 | 3.2 | 1 |
| 172 | NMR relaxation in porous materials at zero and ultralow magnetic fields. *Journal of Magnetic Resonance*, **2018**, 297, 1-8 | 3 | 11 |

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| 171 | Insights into Functionality-Specific Adsorption Dynamics and Stable Reaction Intermediates Using Fast Field Cycling NMR. *Journal of Physical Chemistry C*, **2018**, 122, 20271-20278 | 3.8 | 8 |
| 170 | Accelerating the estimation of 3D spatially resolved T distributions. *Journal of Magnetic Resonance*, **2018**, 296, 93-102 | 3 | 3 |
| 169 | Direct Correlation between Adsorption Energetics and Nuclear Spin Relaxation in a Liquid-saturated Catalyst Material. *ChemPhysChem*, **2018**, 19, 2472-2479 | 3.2 | 23 |
| 168 | Operando determination of the liquid-solid mass transfer coefficient during 1-octene hydrogenation. *Chemical Engineering Science*, **2017**, 171, 614-624 | 4.4 | 9 |
| 167 | Obtaining sparse distributions in 2D inverse problems. *Journal of Magnetic Resonance*, **2017**, 281, 188-198 | 3 | 20 |
| 166 | Retaining both discrete and smooth features in 1D and 2D NMR relaxation and diffusion experiments. *Journal of Magnetic Resonance*, **2017**, 284, 39-47 | 3 | 8 |
| 165 | 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 | 3.7 | 9 |
| 164 | Magnetic Resonance Imaging and Velocity Mapping in Chemical Engineering Applications. *Annual Review of Chemical and Biomolecular Engineering*, **2017**, 8, 227-247 | 8.9 | 17 |
| 163 | PFG NMR and Bayesian analysis to characterise non-Newtonian fluids. *Journal of Magnetic Resonance*, **2017**, 274, 103-114 | 3 | 4 |
| 162 | Magnetic resonance velocity imaging of gas flow in a diesel particulate filter. *Chemical Engineering Science*, **2017**, 158, 490-499 | 4.4 | 16 |
| 161 | The Properties of HPMC:PEO Extended Release Hydrophilic Matrices and their Response to Ionic Environments. *Pharmaceutical Research*, **2017**, 34, 941-956 | 4.5 | 11 |
| 160 | Do group 1 metal salts form deep eutectic solvents?. *Physical Chemistry Chemical Physics*, **2016**, 18, 25528-25537 | 3.6 | 29 |
| 159 | Fast imaging of laboratory core floods using 3D compressed sensing RARE MRI. *Journal of Magnetic Resonance*, **2016**, 270, 187-197 | 3 | 18 |
| 158 | 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 | 5.5 | 32 |
| 157 | Gravitational collapse of depletion-induced colloidal gels. *Soft Matter*, **2016**, 12, 4300-8 | 3.6 | 26 |
| 156 | The enhancement of the catalytic performance of CrOx/Al2O3 catalysts for ethylbenzene dehydrogenation through tailored coke deposition. *Catalysis Science and Technology*, **2016**, 6, 1120-1133 | 5.5 | 13 |
| 155 | Assessing the effect of reducing agents on the selective catalytic reduction of NOx over Ag/Al2O3 catalysts. *Catalysis Science and Technology*, **2016**, 6, 1661-1666 | 5.5 | 22 |
| 154 | Magnetic resonance characterization of coupled gas and particle dynamics in a bubbling fluidized bed. *Physical Review Fluids*, **2016**, 1, | 2.8 | 26 |

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| 153 | Structural changes in FeOx/Al2O3 catalysts during ethylbenzene dehydrogenation **2016**, 2, 25-32 | | 1 |
| 152 | Determination of toluene hydrogenation kinetics with neutron diffraction. *Physical Chemistry Chemical Physics*, **2016**, 18, 17237-43 | 3.6 | 4 |
| 151 | Accelerating flow propagator measurements for the investigation of reactive transport in porous media. *Journal of Magnetic Resonance*, **2016**, 272, 68-72 | 3 | 12 |
| 150 | Structure and dynamics of aqueous 2-propanol: a THz-TDS, NMR and neutron diffraction study. *Physical Chemistry Chemical Physics*, **2015**, 17, 30481-91 | 3.6 | 24 |
| 149 | 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 | 7.3 | 11 |
| 148 | Determining adsorbate configuration on alumina surfaces with (13)C nuclear magnetic resonance relaxation time analysis. *Physical Chemistry Chemical Physics*, **2015**, 17, 20830-9 | 3.6 | 4 |
| 147 | Quantitative mapping of chemical compositions with MRI using compressed sensing. *Journal of Magnetic Resonance*, **2015**, 261, 27-37 | 3 | 7 |
| 146 | The Disintegration Process in Microcrystalline Cellulose Based Tablets, Part 1: Influence of Temperature, Porosity and Superdisintegrants. *Journal of Pharmaceutical Sciences*, **2015**, 104, 3440-50 | 3.9 | 59 |
| 145 | Molecular and ionic diffusion in aqueous - deep eutectic solvent mixtures: probing inter-molecular interactions using PFG NMR. *Physical Chemistry Chemical Physics*, **2015**, 17, 15297-15304 | 3.6 | 158 |
| 144 | Characterising the rheology of non-Newtonian fluids using PFG-NMR and cumulant analysis. *Journal of Magnetic Resonance*, **2015**, 255, 122-31 | 3 | 9 |
| 143 | A new perspective on catalytic dehydrogenation of ethylbenzene: the influence of side-reactions on catalytic performance. *Catalysis Science and Technology*, **2015**, 5, 3782-3797 | 5.5 | 20 |
| 142 | Impact of Processing Conditions on Inter-tablet Coating Thickness Variations Measured by Terahertz In-Line Sensing. *Journal of Pharmaceutical Sciences*, **2015**, 104, 2513-22 | 3.9 | 31 |
| 141 | Low-field permanent magnets for industrial process and quality control. *Progress in Nuclear Magnetic Resonance Spectroscopy*, **2014**, 76, 1-60 | 10.4 | 182 |
| 140 | Assessing the surface modifications following the mechanochemical preparation of a Ag/Al2O3 selective catalytic reduction catalyst. *Catalysis Science and Technology*, **2014**, 4, 531-539 | 5.5 | 36 |
| 139 | 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 | 5.5 | 27 |
| 138 | Less is more: how compressed sensing is transforming metrology in chemistry. *Angewandte Chemie - International Edition*, **2014**, 53, 13330-40 | 16.4 | 26 |
| 137 | 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 | 5.5 | 23 |
| 136 | Interpretation of NMR relaxation as a tool for characterising the adsorption strength of liquids inside porous materials. *Chemistry - A European Journal*, **2014**, 20, 13009-15 | 4.8 | 59 |

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| 135 | Ultrafast magnetic-resonance-imaging velocimetry of liquid-liquid systems: overcoming chemical-shift artifacts using compressed sensing. *Physical Review E*, **2014**, 89, 063009 | 2.4 | 8 |
| 134 | In situ study of reaction kinetics using compressed sensing NMR. *Chemical Communications*, **2014**, 50, 14137-40 | 5.8 | 29 |
| 133 | Assessing the use of NMR chemical shifts for prediction of VLE in non-ideal binary liquid mixtures. *Chemical Engineering Science*, **2014**, 119, 331-333 | 4.4 | 1 |
| 132 | Measurement of the true transverse nuclear magnetic resonance relaxation in the presence of field gradients. *Journal of Chemical Physics*, **2013**, 139, 074205 | 3.9 | 21 |
| 131 | Grain sizing in porous media using Bayesian magnetic resonance. *Physical Review Letters*, **2013**, 110, 018701 | 7.4 | 15 |
| 130 | A General approach to T2 measurements in the presence of internal gradients. *Microporous and Mesoporous Materials*, **2013**, 178, 20-22 | 5.3 | 8 |
| 129 | Operando magnetic resonance: monitoring the evolution of conversion and product distribution during the heterogeneous catalytic ethene oligomerisation reaction. *Chemical Communications*, **2013**, 49, 10519-21 | 5.8 | 19 |
| 128 | Probing chemistry and kinetics of reactions in heterogeneous catalysts. *Chemical Science*, **2013**, 4, 3484 | 9.4 | 14 |
| 127 | Magnetic resonance in reaction engineering: beyond spectroscopy. *Current Opinion in Chemical Engineering*, **2013**, 2, 331-337 | 5.4 | 19 |
| 126 | Understanding the operation and preparation of diesel particulate filters using a multi-faceted nuclear magnetic resonance approach. *Catalysis Today*, **2013**, 216, 104-110 | 5.3 | 6 |
| 125 | Recent advances in flow MRI. *Journal of Magnetic Resonance*, **2013**, 229, 2-11 | 3 | 86 |
| 124 | Magnetic resonance imaging in laboratory petrophysical core analysis. *Physics Reports*, **2013**, 526, 165-225 | 27.7 | 111 |
| 123 | Exploring Surface Interactions in Catalysts Using Low-Field Nuclear Magnetic Resonance. *Journal of Physical Chemistry C*, **2013**, 117, 17699-17706 | 3.8 | 24 |
| 122 | Solvent effect and reactivity trend in the aerobic oxidation of 1,3-propanediols over gold supported on titania: NMR diffusion and relaxation studies. *Chemistry - A European Journal*, **2013**, 19, 11725-32 | 4.8 | 40 |
| 121 | Solvent effects in the hydrogenation of 2-butanone. *Journal of Catalysis*, **2012**, 289, 30-41 | 7.3 | 119 |
| 120 | Overhauser dynamic nuclear polarization amplification of NMR flow imaging. *Journal of Magnetic Resonance*, **2012**, 216, 94-100 | 3 | 12 |
| 119 | MRI technique for the snapshot imaging of quantitative velocity maps using RARE. *Journal of Magnetic Resonance*, **2012**, 216, 183-91 | 3 | 10 |
| 118 | Numerical estimation of relaxation and diffusion distributions in two dimensions. *Progress in Nuclear Magnetic Resonance Spectroscopy*, **2012**, 62, 34-50 | 10.4 | 108 |

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| 117 | Bubble size measurement using Bayesian magnetic resonance. *Chemical Engineering Science*, **2012**, 84, 735-745 | 4.4 | 17 |
| 116 | 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 | 3.8 | 50 |
| 115 | Understanding the solvent effect on the catalytic oxidation of 1,4-butanediol in methanol over Au/TiO2 catalyst: NMR diffusion and relaxation studies. *Chemistry - A European Journal*, **2012**, 18, 14426-33 | 5.8 | 40 |
| 114 | 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 | 3 | 10 |
| 113 | Extending the use of Earth's Field NMR using Bayesian methodology: application to particle sizing. *Journal of Magnetic Resonance*, **2012**, 222, 44-52 | 3 | 8 |
| 112 | Exploring the origins of turbulence in multiphase flow using compressed sensing MRI. *Physical Review Letters*, **2012**, 108, 264505 | 7.4 | 46 |
| 111 | CFD modeling of single-phase flow in a packed bed with MRI validation. *AICHE Journal*, **2012**, 58, 3904-3916 | 3.6 | 33 |
| 110 | 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 | 4.4 | 34 |
| 109 | Measuring adsorption, diffusion and flow in chemical engineering: applications of magnetic resonance to porous media. *New Journal of Physics*, **2011**, 13, 035001 | 2.9 | 60 |
| 108 | Glycerol eutectics as sustainable solvent systems. *Green Chemistry*, **2011**, 13, 82-90 | 10 | 539 |
| 107 | Multi-scale magnetic resonance measurements and validation of Discrete Element Model simulations. *Particuology*, **2011**, 9, 330-341 | 2.8 | 10 |
| 106 | Time resolved velocity measurements of unsteady systems using spiral imaging. *Journal of Magnetic Resonance*, **2011**, 211, 1-10 | 3 | 29 |
| 105 | Prediction of binary diffusion coefficients in non-ideal mixtures from NMR data: Hexane–nitrobenzene near its consolute point. *Chemical Engineering Science*, **2011**, 66, 3898-3906 | 4.4 | 41 |
| 104 | MRI studies of the hydrodynamics in a USP 4 dissolution testing cell. *Journal of Pharmaceutical Sciences*, **2011**, 100, 976-91 | 3.9 | 31 |
| 103 | Fast multidimensional NMR spectroscopy using compressed sensing. *Angewandte Chemie - International Edition*, **2011**, 50, 6548-51 | 16.4 | 197 |
| 102 | Neutron diffraction, NMR and molecular dynamics study of glucose dissolved in the ionic liquid 1-ethyl-3-methylimidazolium acetate. *Chemical Science*, **2011**, 2, 1594 | 9.4 | 110 |
| 101 | A Bayesian approach to characterising multi-phase flows using magnetic resonance: application to bubble flows. *Journal of Magnetic Resonance*, **2011**, 209, 83-7 | 3 | 24 |
| 100 | Magnetic resonance imaging studies of spontaneous capillary water imbibition in aerated gypsum. *Journal Physics D: Applied Physics*, **2011**, 44, 115403 | 3 | 8 |

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| 99 | In-line monitoring of coating thickness of pharmaceutical tablets during production scale film coating by Terahertz imaging **2010**, | | 2 |
| 98 | 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 | 3.9 | 55 |
| 97 | Magnetic resonance measurements of high-velocity particle motion in a three-dimensional gas-solid spouted bed. *Physical Review E*, **2010**, 82, 050302 | 2.4 | 9 |
| 96 | Magnetic Resonance Studies of Fluidization Regimes. *Industrial & Engineering Chemistry Research*, **2010**, 49, 5891-5899 | 3.9 | 20 |
| 95 | Nuclear magnetic resonance relaxation and diffusion in the presence of internal gradients: the effect of magnetic field strength. *Physical Review E*, **2010**, 81, 026101 | 2.4 | 111 |
| 94 | Terahertz pulsed imaging of surface variations on pharmaceutical tablets **2010**, | | 5 |
| 93 | Surface diffusion in porous catalysts. *Physical Chemistry Chemical Physics*, **2010**, 12, 2619-24 | 3.6 | 48 |
| 92 | Atomic charge distribution in sodosilicate glasses from terahertz time-domain spectroscopy. *Physical Review B*, **2010**, 82, | 3.3 | 21 |
| 91 | Measurement of cytoplasmic streaming in single plant cells by magnetic resonance velocimetry. *Journal of Fluid Mechanics*, **2010**, 642, 5-14 | 3.7 | 27 |
| 90 | Snap-shot velocity vector mapping using echo-planar imaging. *Journal of Magnetic Resonance*, **2010**, 204, 266-72 | 3 | 7 |
| 89 | 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 | 4.3 | 35 |
| 88 | Quantitative ultra-fast MRI of HPMC swelling and dissolution. *Journal of Pharmaceutical Sciences*, **2010**, 99, 3462-72 | 3.9 | 60 |
| 87 | Interactions of binary liquid mixtures with polysaccharides studied using multi-dimensional NMR relaxation time measurements. *Polymer*, **2010**, 51, 4103-4109 | 3.9 | 6 |
| 86 | Rapid measurement of transient velocity evolution using GERVAIS. *Journal of Magnetic Resonance*, **2010**, 202, 93-101 | 3 | 16 |
| 85 | Reducing data acquisition times in phase-encoded velocity imaging using compressed sensing. *Journal of Magnetic Resonance*, **2010**, 203, 236-46 | 3 | 85 |
| 84 | Real-time in situ measurement of particle size in flowing powders by terahertz time-domain spectroscopy **2009**, | | 2 |
| 83 | Pharmaceutical tablet hardness measurements with thz pulsed imaging **2009**, | | 3 |
| 82 | Quantification of emulsified water content in oil using a terahertz quantum cascade laser **2009**, | | 8 |

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| 81 | Geometrical and hydrodynamical study of gas jets in packed and fluidized beds using magnetic resonance. *Canadian Journal of Chemical Engineering*, **2009**, 87, 517-525 | 2.3 | 22 |
| 80 | Quantitative single point imaging with compressed sensing. *Journal of Magnetic Resonance*, **2009**, 201, 72-80 | 3 | 37 |
| 79 | Magnetic resonance studies of hydration kinetics and microstructural evolution in plaster pastes. *Journal of Materials Science*, **2009**, 44, 5004-5012 | 4.3 | 16 |
| 78 | Validation of a discrete element model using magnetic resonance measurements. *Particuology*, **2009**, 7, 297-306 | 2.8 | 81 |
| 77 | Magnetic resonance velocity imaging of liquid and gas two-phase flow in packed beds. *Journal of Magnetic Resonance*, **2009**, 196, 142-8 | 3 | 69 |
| 76 | Quantitative moisture content detection in food wafers **2009**, | | 8 |
| 75 | Comparison of ECVT and MR Measurements of Voidage in a Gas-Fluidized Bed. *Industrial & Engineering Chemistry Research*, **2009**, 48, 172-181 | 3.9 | 38 |
| 74 | Liquid Structure and Dynamics of Aqueous Isopropanol over Alumina. *Journal of Physical Chemistry C*, **2009**, 113, 21342-21352 | 3.8 | 13 |
| 73 | 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 | 3.8 | 73 |
| 72 | Terahertz pulsed spectroscopic imaging using optimized binary masks. *Applied Physics Letters*, **2009** , 95, 231112 | 3.4 | 22 |
| 71 | Quantification of thin-film coating thickness of pharmaceutical tablets using wavelet analysis of terahertz pulsed imaging data **2009**, | | 5 |
| 70 | Spatially resolved quantification of metal ion concentration in a biofilm-mediated ion exchanger. *Biotechnology and Bioengineering*, **2008**, 99, 821-9 | 4.9 | 26 |
| 69 | Non-invasive mass transfer measurements in complex biofilm-coated structures. *Biotechnology and Bioengineering*, **2008**, 101, 602-8 | 4.9 | 25 |
| 68 | Spatially resolved measurement of anisotropic granular temperature in gas-fluidized beds. *Powder Technology*, **2008**, 182, 171-181 | 5.2 | 65 |
| 67 | Granular temperature: Comparison of Magnetic Resonance measurements with Discrete Element Model simulations. *Powder Technology*, **2008**, 184, 241-253 | 5.2 | 144 |
| 66 | A rapid measurement of flow propagators in porous rocks. *Journal of Magnetic Resonance*, **2008**, 191, 267-72 | 3 | 29 |
| 65 | Determining NMR flow propagator moments in porous rocks without the influence of relaxation. *Journal of Magnetic Resonance*, **2008**, 193, 218-25 | 3 | 29 |
| 64 | Rapid encoding of T(1) with spectral resolution in n-dimensional relaxation correlations. *Journal of Magnetic Resonance*, **2008**, 194, 156-61 | 3 | 37 |

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| 63 | Magnetic resonance imaging of fluidized beds: Recent advances. *Theoretical Foundations of Chemical Engineering*, **2008**, 42, 469-478 | 0.9 | 13 |
| 62 | 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 | 2.4 | 15 |
| 61 | Quantitative measurements of liquid holdup and drainage in foam using NMRI. *AICHE Journal*, **2007** , 53, 290-296 | 3.6 | 24 |
| 60 | MRI strategies for characterising two-phase flow in parallel channel ceramic monoliths. *Catalysis Today*, **2007**, 128, 3-12 | 5.3 | 18 |
| 59 | A cumulant analysis for non-Gaussian displacement distributions in Newtonian and non-Newtonian flows through porous media. *Magnetic Resonance Imaging*, **2007**, 25, 513-6 | 3.3 | 13 |
| 58 | An NMR pulsed field gradient study of the electrical and conventional heating of carrot. *International Journal of Food Science and Technology*, **2007**, 30, 639-654 | 3.8 | 12 |
| 57 | Flow through an evolving porous media□ompressed foam. *Journal of Materials Science*, **2007**, 42, 6541-6548 | 4.5 | 19 |
| 56 | Characterizing the Evolution of Porosity during Controlled Drug Release. *Applied Magnetic Resonance*, **2007**, 32, 185-204 | 0.8 | 21 |
| 55 | Enhanced (13)C PFG NMR for the study of hydrodynamic dispersion in porous media. *Journal of Magnetic Resonance*, **2007**, 186, 160-5 | 3 | 13 |
| 54 | Using terahertz time-domain spectroscopy to identify pharmaceutical cocrystals **2007**, | | 2 |
| 53 | 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 | 2.4 | 40 |
| 52 | Validation of NMR relaxation exchange time measurements in porous media. *Journal of Chemical Physics*, **2007**, 127, 234701 | 3.9 | 39 |
| 51 | Mechanism of the trickle-to-pulse flow transition in fixed-bed reactors. *AICHE Journal*, **2006**, 52, 1522-1537 | 3.6 | 44 |
| 50 | Quantifying transport within a porous medium over a hierarchy of length scales. *Physics of Fluids*, **2006**, 18, 033102 | 4.4 | 15 |
| 49 | Real-time measurement of bubbling phenomena in a three-dimensional gas-fluidized bed using ultrafast magnetic resonance imaging. *Physical Review Letters*, **2006**, 96, 154504 | 7.4 | 67 |
| 48 | Characterization of Crystalline Phase-Transformations in Theophylline by Time-Domain Terahertz Spectroscopy. *Spectroscopy Letters*, **2006**, 39, 215-224 | 1.1 | 35 |
| 47 | Magnetic resonance imaging of structure and convection in solidifying mushy layers. *Journal of Fluid Mechanics*, **2006**, 552, 99 | 3.7 | 38 |
| 46 | Magnetic Resonance Imaging of Catalysts and Catalytic Processes. *Advances in Catalysis*, **2006**, 1-75 | 2.4 | 25 |

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| 45 | Reactors and Reactions **2006**, 534-551 | | 2 |
| 44 | Reactors and Reactions **2006**, 590-608 | | |
| 43 | Polarisation enhanced 13C magnetic resonance studies of the hydrogenation of pentene over Pd/Al2O3 catalysts. *Catalysis Today*, **2006**, 114, 412-417 | 5.3 | 9 |
| 42 | Quantitative nuclear magnetic resonance measurements of preasymptotic dispersion in flow through porous media. *Physics of Fluids*, **2005**, 17, 117107 | 4.4 | 76 |
| 41 | Terahertz time-domain spectroscopy of crushed wheat grain **2005**, | | 7 |
| 40 | Displacement propagators of brine flowing within different types of sedimentary rock. *Magnetic Resonance Imaging*, **2005**, 23, 349-51 | 3.3 | 13 |
| 39 | Degradation and drug-release studies of a poly(glycolide-co-trimethylene carbonate) copolymer (Maxon). *Journal of Applied Polymer Science*, **2005**, 95, 475-486 | 2.9 | 21 |
| 38 | Transition to pulsing flow in trickle-bed reactors studied using MRI. *AICHE Journal*, **2005**, 51, 615-621 | 3.6 | 27 |
| 37 | Rapid measurement of dispersion and velocity in freezing drops using magnetic resonance methods. *Experiments in Fluids*, **2005**, 38, 750-758 | 2.5 | 4 |
| 36 | Rapid imaging of fluid flow patterns in a narrow packed bed using MRI. *Magnetic Resonance Imaging* , **2005**, 23, 391-3 | 3.3 | 12 |
| 35 | In Situ MRI Study of 1-octene Isomerisation and Hydrogenation within a Trickle-bed Reactor. *Catalysis Letters*, **2005**, 103, 1-8 | 2.8 | 53 |
| 34 | MRI technique for measurement of velocity vectors, acceleration, and autocorrelation functions in turbulent flow. *Journal of Magnetic Resonance*, **2004**, 166, 182-9 | 3 | 68 |
| 33 | Looking intoTchemical products and processes. *Current Applied Physics*, **2004**, 4, 93-97 | 2.6 | 10 |
| 32 | Recent Advances in MRI Studies of Chemical Reactors: Ultrafast Imaging of Multiphase Flows. *Topics in Catalysis*, **2003**, 24, 19-28 | 2.3 | 35 |
| 31 | Magnetic resonance: Ongoing and future role in chemical engineering research. *AICHE Journal*, **2003**, 49, 2-9 | 3.6 | 63 |
| 30 | Using MR techniques to probe permeability reduction in rock cores. *AICHE Journal*, **2003**, 49, 1076-1084 | 3.6 | 16 |
| 29 | 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, 213-9 | 3.3 | 27 |
| 28 | Quantitative Teal-timeTimaging of multi-phase flow in ceramic monoliths. *Magnetic Resonance Imaging*, **2003**, 21, 359-61 | 3.3 | 13 |

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|---|---|---|---|
| 27 | Dynamic MRI visualization of two-phase flow in a ceramic monolith. *AICHE Journal*, **2002**, 48, 909-912 | 3.6 | 63 |
| 26 | Magnetic resonance imaging of single- and two-phase flow in fixed-bed reactors. *Applied Magnetic Resonance*, **2002**, 22, 201 | 0.8 | 12 |
| 25 | 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 | 5.1 | 57 |
| 24 | An evaluation of cellular automata applied to ganglia dissolution. *Physics of Fluids*, **2002**, 14, 4152-4159 | 4.4 | 3 |
| 23 | Magnetic resonance visualisation of single- and two-phase flow in porous media. *Magnetic Resonance Imaging*, **2001**, 19, 339-43 | 3.3 | 41 |
| 22 | Spatially Resolved Viscosity of Concentrated Suspensions in a Couette Device Using Magnetic Resonance Imaging. *Chemie-Ingenieur-Technik*, **2001**, 73, 744-744 | 0.8 | |
| 21 | Magnetic resonance imaging as a quantitative probe of gas□quid distribution and wetting efficiency in trickle-bed reactors. *Chemical Engineering Science*, **2001**, 56, 2615-2628 | 4.4 | 97 |
| 20 | Single- and two-phase flow in fixed-bed reactors: MRI flow visualisation and lattice-Boltzmann simulations. *Chemical Engineering Science*, **2001**, 56, 523-529 | 4.4 | 97 |
| 19 | Local transitions in flow phenomena through packed beds identified by MRI. *AICHE Journal*, **2000**, 46, 2151-2161 | 3.6 | 68 |
| 18 | Quantification of the Number of Silanol Groups in Silicalite and Mesoporous MCM-41: Use of Ft-Raman Spectroscopy. *Spectroscopy Letters*, **2000**, 33, 569-584 | 1.1 | 6 |
| 17 | Applications of in situ magnetic resonance techniques in chemical reaction engineering. *Topics in Catalysis*, **1999**, 8, 87-95 | 2.3 | 26 |
| 16 | Flow and dispersion in porous media: Lattice-Boltzmann and NMR studies. *AICHE Journal*, **1999**, 45, 1845-1854 | 3.6 | 170 |
| 15 | 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 | 3.9 | 15 |
| 14 | Correlations between dispersion and structure in porous media probed by nuclear magnetic resonance. *Physics of Fluids*, **1999**, 11, 259-267 | 4.4 | 71 |
| 13 | Structure-flow correlations in packed beds. *Chemical Engineering Science*, **1998**, 53, 2117-2128 | 4.4 | 126 |
| 12 | A Monte Carlo study of temperature-programmed desorption from supported-metal catalysts. *Catalysis Letters*, **1998**, 55, 1-6 | 2.8 | 10 |
| 11 | Diffusion and reaction in whole wheat grains during boiling. *AICHE Journal*, **1998**, 44, 1777-1789 | 3.6 | 32 |
| 10 | A differential scanning calorimetry study of wheat grain cooking. *International Journal of Food Science and Technology*, **1997**, 32, 473-486 | 3.8 | 11 |

# List of Publications

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|---|---|---|---|
| 9 | NMR imaging of the wheat grain cooking process. *International Journal of Food Science and Technology*, **1997**, 32, 355-375 | 3.8 | 47 |
| 8 | Magnetic resonance imaging of liquid flow and pore structure within packed beds. *Chemical Engineering Science*, **1997**, 52, 2239-2250 | 4.4 | 106 |
| 7 | NMR Imaging of nonaqueous-phase liquid dissolution in a porous medium. *AICHE Journal*, **1996**, 42, 1341-1349 | 3.6 | 11 |
| 6 | Characterization of structural inhomogeneities in porous media. *AICHE Journal*, **1995**, 41, 894-906 | 3.6 | 35 |
| 5 | Transport heterogeneity in porous pellets□ PGSE NMR studies. *Chemical Engineering Science*, **1995**, 50, 309-326 | 4.4 | 85 |
| 4 | Transport heterogeneity in porous pellets□. NMR imaging studies under transient and steady-state conditions. *Chemical Engineering Science*, **1995**, 50, 327-344 | 4.4 | 49 |
| 3 | Changes in the gelation mechanism of whey protein concentrate with pH and temperature. *Journal of Dairy Research*, **1994**, 61, 71-81 | 1.6 | 22 |
| 2 | Alkane Dehydrogenation over Vanadium and Chromium Oxides595-612 | | 2 |
| 1 | Integrating Pore-Scale Flow MRI and X-ray □T for Validation of Numerical Flow Simulations in Porous Sedimentary Rocks. *Transport in Porous Media*,1 | 3.1 | |