Gisela Guthausen

List of Publications by Year
in descending order

86 papers	1,973 citations	236925 25 h-index	289244 40 g-index
88 all docs	88 docs citations	88 times ranked	1863 citing authors

#	Article	IF	Citations
1	Contact‐mediated nucleation in melt emulsions investigated by rheo‐nuclear magnetic resonance. Magnetic Resonance in Chemistry, 2022, 60, 615-627.	1.9	6
2	Nuclear magnetic resonance/magnetic resonance imaging on lubricating greases: Observation of bleeding and aging. Magnetic Resonance in Chemistry, 2022, 60, 452-462.	1.9	4
3	Magnetic resonance imaging as a tool for quality control in extrusion‐based bioprinting. Biotechnology Journal, 2022, 17, e2100336.	3.5	6
4	Charge Transport and Glassy Dynamics in Blends Based on 1-Butyl-3-vinylbenzylimidazolium Bis(trifluoromethanesulfonyl)imide Ionic Liquid and the Corresponding Polymer. Polymers, 2022, 14, 2423.	4.5	2
5	Investigation of Transverse Relaxation Rate Distribution via Magnetic Resonance Imaging: Impact of Electrode Formation. Energy Technology, 2021, 9, 2000579.	3.8	2
6	Dedicated NMR sensor to analyze relaxation and diffusion in liquids and its application to characterize lubricants. Magnetic Resonance in Chemistry, 2021, 59, 825-834.	1.9	7
7	Characterization of covalent, feruloylated polysaccharide gels by pulsed field gradient-stimulated echo (PFG-STE)-NMR. Carbohydrate Polymers, 2021, 267, 118232.	10.2	8
8	Contact-Mediated Nucleation of Subcooled Droplets in Melt Emulsions: A Microfluidic Approach. Crystals, 2021, 11, 1471.	2.2	3
9	NMR Relaxivities of Paramagnetic Lanthanide-Containing Polyoxometalates. Molecules, 2021, 26, 7481.	3.8	8
10	Characterization of biofilm distribution in hollow fiber membranes using Compressed Sensing Magnetic Resonance Imaging. Journal of Membrane Science, 2020, 594, 117437.	8.2	13
11	Noise reduction of flow MRI measurements using a lattice Boltzmann based topology optimisation approach. Computers and Fluids, 2020, 197, 104391.	2.5	7
12	Influence of Shear Flow on the Crystallization of Organic Melt Emulsions – A Rheo‐Nuclear Magnetic Resonance Investigation. Chemical Engineering and Technology, 2020, 43, 1699-1705.	1.5	9
13	Comparative NMR Relaxivity Study of Polyoxometalate-Based Clusters [Mn4(H2O)2(P2W1SO56)2]16⁻ and [{Dy(H2O)6}2Mn4(H2O)2(P2W15O56)2]10⁻ from 20 MHz to 1.2 GHz. Applied Magnetic Resonance, 2020, 51, 1295-1305.	1.2	2
14	Transport and retention of artificial and real wastewater particles inside a bed of settled aerobic granular sludge assessed applying magnetic resonance imaging. Water Research X, 2020, 7, 100050.	6.1	10
15	Quantification of Evaporation and Drainage Processes in Unsaturated Porous Media Using Magnetic Resonance Imaging. Water Resources Research, 2020, 56, e2019WR026658.	4.2	2
16	Structural Characterisation of Deposit Layer during Milk Protein Microfiltration by Means of In-Situ MRI and Compositional Analysis. Membranes, 2020, 10, 59.	3.0	9
17	Recent MRI and diffusion studies of food structures. Annual Reports on NMR Spectroscopy, 2020, 100, 203-264.	1.5	5
18	Polyoxometalate-based high-spin cluster systems: a NMR relaxivity study up to 1.4 GHz/33 T. Dalton Transactions, 2019, 48, 15597-15604.	3.3	12

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19	1 H PFG‑NMR Diffusion Study on a Sequence‑Defined Macromolecule: Confirming Monodispersity. Macromolecular Chemistry and Physics, 2019, 220, 1900155.	2.2	4
20	Evaluation of productive biofilms for continuous lactic acid production. Biotechnology and Bioengineering, 2019, 116, 2687-2697.	3.3	15
21	Recent NMR/MRI studies of biofilm structures and dynamics. Annual Reports on NMR Spectroscopy, 2019, 97, 163-213.	1.5	9
22	Structure of Superabsorbent Polyacrylate Hydrogels and Dynamics of Counterions by Nuclear Magnetic Resonance. Macromolecular Chemistry and Physics, 2019, 220, 1800525.	2.2	12
23	Low‑field NMR for quality control on oils. Magnetic Resonance in Chemistry, 2019, 57, 777-793.	1.9	39
24	Polymer Crystallization Studied by Hyphenated Rheology Techniques: Rheo‑NMR, Rheo‑SAXS, and Rheo‑Microscopy. Macromolecular Materials and Engineering, 2019, 304, 1800586.	3.6	19
25	Dynamics of Sodium Ions and Water in Swollen Superabsorbent Hydrogels as Studied by ^{23}Na‑and ^{1}H‑NMR. Macromolecular Chemistry and Physics, 2019, 220, 1800350.	2.2	13
26	*In situ* measurement of deposit layer formation during skim milk filtration by MRI. Magnetic Resonance in Chemistry, 2019, 57, 738-748.	1.9	13
27	CFD-MRI: A coupled measurement and simulation approach for accurate fluid flow characterisation and domain identification. Computers and Fluids, 2018, 166, 218-224.	2.5	11
28	Solid Fat Content Determination of Dispersed Lipids by Time‑Domain NMR. European Journal of Lipid Science and Technology, 2018, 120, 1700132.	1.5	5
29	Polymer crystallinity and crystallization kinetics via benchtop 1H NMR relaxometry: Revisited method, data analysis, and experiments on common polymers. Polymer, 2018, 145, 162-173.	3.8	25
30	Reaction kinetics of polyfurfuryl alcohol bioresin and nanoparticles by ^{1}H‑NMR transverse relaxation measurements. Polymer Composites, 2018, 39, 3280-3288.	4.6	6
31	Fluid flow simulations verified by measurements to investigate adsorption processes in a static mixer. Computers and Mathematics With Applications, 2018, 76, 2744-2757.	2.7	10
32	Flowing Liquids in NMR: Numerical CFD Simulation and Experimental Confirmation of Magnetization Buildup. Applied Magnetic Resonance, 2018, 49, 687-705.	1.2	8
33	Topological Insight into Superabsorbent Hydrogel Network Structures: a ^{1}H Double‑Quantum NMR Study. Macromolecular Chemistry and Physics, 2018, 219, 1800100.	2.2	10
34	Diffusometric Assessment of Food Double Emulsions. , 2018, , 1417-1429.		0
35	In situ MRI of alginate fouling and flow in ceramic hollow fiber membranes. Journal of Membrane Science, 2017, 524, 691-699.	8.2	26
36	Shear rheology and 1H TD-NMR combined to low-field RheoNMR: Set-up and application to quiescent and flow-induced crystallization of polymers. AIP Conference Proceedings, 2017, , .	0.4	3

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37	[Ag₁₁₅S₃₄(SCH₂C₆H₄^tBu)₄₇(dpph)<su... synthesis, crystal structure and NMR investigations of a soluble silver chalcogenide nanocluster. Chemical Science, 2017, 8, 2235-2240.	7.4	55
38	NMR investigation of water diffusion in different biofilm structures. Biotechnology and Bioengineering, 2017, 114, 2857-2867.	3.3	21
39	Diffusion in Polymer Solutions: Molecular Weight Distribution by PFGâ€NMR and Relation to SEC. Macromolecular Chemistry and Physics, 2017, 218, 1600440.	2.2	46
40	NMR Diffusion and Relaxation for Monitoring of Degradation in Motor Oils. Applied Magnetic Resonance, 2017, 48, 51-65.	1.2	21
41	Low-field RheoNMR: Newly developed combination of rheology and time domain (TD)-NMR to correlate mechanical properties with molecular dynamics in polymer melts. AIP Conference Proceedings, 2017, , .	0.4	1
42	3D reconstruction of ablation lesions from in-vitro preparations using MRI. Current Directions in Biomedical Engineering, 2017, 3, 437-440.	0.4	1
43	Diffusometric Assessment of Food Double Emulsions. , 2017, , 1-13.		0
44	Effect of molecular exchange on water droplet size analysis as determined by diffusion NMR: The W/O/W double emulsion case. Journal of Colloid and Interface Science, 2016, 475, 57-65.	9.4	15
45	Process control with compact NMR. TrAC - Trends in Analytical Chemistry, 2016, 83, 39-52.	11.4	85
46	Improving the processability of coke water slurries for entrained flow gasification. Fuel, 2016, 185, 102-111.	6.4	26
47	Interactions between Phospholipids and Organic Phases: Insights into Lipoproteins and Nanoemulsions. Langmuir, 2016, 32, 5821-5829.	3.5	18
48	Direct surface visualization of biofilms with high spin coordination clusters using Magnetic Resonance Imaging. Acta Biomaterialia, 2016, 31, 167-177.	8.3	13
49	Analysis of food and emulsions. TrAC - Trends in Analytical Chemistry, 2016, 83, 103-106.	11.4	35
50	Phospholipid adsorption at oil in water versus water in oil interfaces: Implications for interfacial densities and bulk solubilities. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 505, 56-63.	4.7	17
51	Short and long term biosorption of silica-coated iron oxide nanoparticles in heterotrophic biofilms. Science of the Total Environment, 2016, 544, 722-729.	8.0	19
52	Automated data evaluation and modelling of simultaneous ¹⁹Fâ€"¹H mediumâ€resolution NMR spectra for online reaction monitoring. Magnetic Resonance in Chemistry, 2016, 54, 513-520.	1.9	25
53	Hyphenated lowâ€field NMR techniques: combining NMR with NIR, GPC/SEC and rheometry. Magnetic Resonance in Chemistry, 2016, 54, 494-501.	1.9	38
54	Imaging of Double Emulsions. Food Engineering Series, 2016, , 69-98.	0.7	8

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55	Magnetic resonance imaging reveals detailed spatial and temporal distribution of iron-based nanoparticles transported through water-saturated porous media. Journal of Contaminant Hydrology, 2015, 182, 51-62.	3.3	14
56	Viscoelastic behaviour of asphalt modified by grafted tri-block copolymers: predictions of fractional rheological models. International Journal of Pavement Engineering, 2015, 16, 730-744.	4.4	4
57	Investigation and application of measurement techniques for the determination of the encapsulation efficiency of O/W/O multiple emulsions stabilized by hydrocolloid gelation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 475, 55-61.	4.7	25
58	Characterisation and application of ultra-high spin clusters as magnetic resonance relaxation agents. Dalton Transactions, 2015, 44, 5032-5040.	3.3	29
59	Determining the flow regime in a biofilm carrier by means of magnetic resonance imaging. Biotechnology and Bioengineering, 2015, 112, 1023-1032.	3.3	24
60	Molecular Dynamics of Polymer Composites Using Rheology and Combined RheoNMR on the Example of TiO_2-Filled Poly(n-Alkyl Methacrylates) and Trans-1,4-Polyisoprene. Soft Materials, 2014, 12, S4-S13.	1.7	8
61	Quantitative Medium-Resolution NMR Spectroscopy Under Non-Equilibrium Conditions, Studied on the Example of an Esterification Reaction. Applied Magnetic Resonance, 2014, 45, 411-425.	1.2	29
62	Investigation of Polymer–Filler Interactions in TiO_2–Filled Poly(*n*–alkyl Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 46 851-858.	2.2	6
63	Simultaneous 19F–1H medium resolution NMR spectroscopy for online reaction monitoring. Journal of Magnetic Resonance, 2014, 249, 53-62.	2.1	54
64	Thermophysical Properties of the Binary Mixture of Water + Diethylmethylammonium Trifluoromethanesulfonate and the Ternary Mixture of Water + Diethylmethylammonium Trifluoromethanesulfonate + Diethylmethylammonium Methanesulfonate. Journal of Chemical & Engineering Data, 2014, 59, 560-570.	1.9	20
65	Network Structure and Inhomogeneities of Model and Commercial Polyelectrolyte Hydrogels as Investigated by Low-Field Proton NMR Techniques. Macromolecules, 2014, 47, 4251-4265.	4.8	47
66	Non-destructive, quantitative characterization of extruded starch-based products by magnetic resonance imaging and X-ray microtomography. Journal of Food Engineering, 2014, 124, 122-127.	5.2	11
67	Nuclear Magnetic Resonance Relaxivities: Investigations of Ultrahigh–Spin Lanthanide Clusters from 10 MHz to 1.4 GHz. ChemPhysChem, 2014, 15, 3608-3613.	2.1	14
68	Analysis of W1/O/W2 double emulsions with CLSM: Statistical image processing for droplet size distribution. Chemical Engineering Science, 2012, 81, 84-90.	3.8	51
69	Polystyrene Solutions: Characterization of Molecular Motional Modes by Spectrally Resolved Low– and High–Field NMR Relaxation. Macromolecular Chemistry and Physics, 2012, 213, 1833-1840.	2.2	12
70	Online Coupling of Size–Exclusion Chromatography and Low–Field ^{1}H NMR Spectroscopy. Macromolecular Chemistry and Physics, 2012, 213, 1933-1943.	2.2	21
71	^{1}H NMR Techniques for Characterization of Water Content and Viscosity of Fast Pyrolysis Oils. Energy & Fuels, 2012, 26, 5274-5280.	5.1	7
72	Considerations on the design of flow cells in by-pass systems for process analytical applications and its influence on the flow profile using NMR and CFD. Chemical Engineering Science, 2012, 75, 318-326.	3.8	40

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73	Process and reaction monitoring by low-field NMR spectroscopy. Progress in Nuclear Magnetic Resonance Spectroscopy, 2012, 60, 52-70.	7.5	203
74	In-situ investigations of the curing of a polyester resin. Polymer Testing, 2012, 31, 127-135.	4.8	29
75	SECâ€¶MRâ€¶NMR: Online Coupling of Size Exclusion Chromatography and Medium Resolution NMR Spectroscopy. Macromolecular Rapid Communications, 2011, 32, 665-670.	3.9	29
76	PFGâ€¶NMR on W_1/O/W_2 â€¶emulsions: Evidence for molecular exchange between water phases. European Journal of Lipid Science and Technology, 2010, 112, 828-837.	1.5	34
77	Online Low-Field ^{1}H NMR Spectroscopy: Monitoring of Emulsion Polymerization of Butyl Acrylate. Macromolecules, 2010, 43, 5561-5568.	4.8	51
78	Ein Spektrometer fÃ¼r die spektral aufgelÃ¶ste Niederfeldâ€¶NMR. Nachrichten Aus Der Chemie, 2010, 58, 1155-1157.	0.0	14
79	Preparation of W_1/O/W_2 emulsions and droplet size distribution measurements by pulsedâ€¶field gradient nuclear magnetic resonance (PFGâ€¶NMR) technique. European Journal of Lipid Science and Technology, 2009, 111, 730-742.	1.5	29
80	Investigation of Hydrogenation of Toluene to Methylcyclohexane in a Trickle Bed Reactor by Low-Field Nuclear Magnetic Resonance Spectroscopy. Applied Spectroscopy, 2009, 63, 1121-1127.	2.2	26
81	A Low-field-NMR Capillary Rheometer. Special Publication - Royal Society of Chemistry, 2009, , 81-88.	0.0	5
82	Field Dependent Dynamic Nuclear Polarization with Radicals in Aqueous Solution. Journal of the American Chemical Society, 2008, 130, 3254-3255.	13.7	117
83	Water/moisture and fat analysis by time-domain NMR. Food Chemistry, 2006, 96, 436-440.	8.2	127
84	Measurement of fat content of food with single-sided NMR. JAOCS, Journal of the American Oil Chemists' Society, 2004, 81, 727-731.	1.9	58
85	Quality control with time-domain NMR. European Journal of Lipid Science and Technology, 2001, 103, 835-840.	1.5	47
86	Flow of Newtonian and Non-Newtonian Fluids in Porous Solid Matrices Described by Magnetic Resonance Tomography. Chemie-Ingenieur-Technik, 2001, 73, 755-755.	0.8	0