Burkhard Luy

List of Publications by Year
in descending order

196 papers	7,824 citations	44069 48 h-index	66911 78 g-index
216 all docs	216 docs citations	216 times ranked	6031 citing authors

#	Article	IF	Citations
1	Training SchrÃ¶dingerâ€™s cat: quantum optimal control. European Physical Journal D, 2015, 69, 1.	1.3	550
2	The dynamic range of the human metabolome revealed by challenges. FASEB Journal, 2012, 26, 2607-2619.	0.5	268
3	Application of optimal control theory to the design of broadband excitation pulses for high-resolution NMR. Journal of Magnetic Resonance, 2003, 163, 8-15.	2.1	237
4	The CLIP/CLAP-HSQC: Pure absorptive spectra for the measurement of one-bond couplings. Journal of Magnetic Resonance, 2008, 192, 314-322.	2.1	217
5	Exploring the limits of broadband excitation and inversion pulses. Journal of Magnetic Resonance, 2004, 170, 236-243.	2.1	190
6	Residual dipolar couplings as a tool in determining the structure of organic molecules. TrAC - Trends in Analytical Chemistry, 2009, 28, 483-493.	11.4	159
7	Metabolite patterns predicting sex and age in participants of the Karlsruhe Metabolomics and Nutrition (KarMeN) study. PLoS ONE, 2017, 12, e0183228.	2.5	150
8	Residual Dipolar Couplings for the Configurational and Conformational Analysis of Organic Molecules. Annual Reports on NMR Spectroscopy, 2009, 68, 193-232.	1.5	148
9	Stretched Poly(dimethylsiloxane) Gels as NMR Alignment Media for Apolar and Weakly Polar Organic Solvents:Â An Ideal Tool for Measuring RDCs at Low Molecular Concentrations. Journal of the American Chemical Society, 2004, 126, 14690-14691.	13.7	134
10	Optimal control of spin dynamics in the presence of relaxation. Journal of Magnetic Resonance, 2003, 162, 311-319.	2.1	120
11	An Easy and Scalable Method for the Partial Alignment of Organic Molecules for Measuring Residual Dipolar Couplings. Angewandte Chemie - International Edition, 2004, 43, 1092-1094.	13.8	119
12	Reducing the duration of broadband excitation pulses using optimal control with limited RF amplitude. Journal of Magnetic Resonance, 2004, 167, 68-74.	2.1	119
13	Stretched Gelatin Gels as Chiral Alignment Media for the Discrimination of Enantiomers by NMR Spectroscopy. Angewandte Chemie - International Edition, 2005, 44, 3145-3147.	13.8	116
14	Exploring the limits of broadband excitation and inversion: II. Rf-power optimized pulses. Journal of Magnetic Resonance, 2008, 194, 58-66.	2.1	108
15	Optimal control design of constant amplitude phase-modulated pulses: Application to calibration-free broadband excitation. Journal of Magnetic Resonance, 2006, 179, 241-249.	2.1	103
16	Exploring the limits of broadband 90Â° and 180Â° universal rotation pulses. Journal of Magnetic Resonance, 2012, 225, 142-160.	2.1	103
17	Boundary of quantum evolution under decoherence. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13162-13166.	7.1	97
18	Pattern pulses: design of arbitrary excitation profiles as a function of pulse amplitude and offset. Journal of Magnetic Resonance, 2005, 173, 229-235.	2.1	96

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19	Stretched Poly(vinyl acetate) Gels as NMR Alignment Media for the Measurement of Residual Dipolar Couplings in Polar Organic Solvents. Angewandte Chemie - International Edition, 2005, 44, 423-426.	13.8	93
20	Stretched Poly(acrylonitrile) as a Scalable Alignment Medium for DMSO. Journal of the American Chemical Society, 2007, 129, 6080-6081.	13.7	92
21	Structure Refinement of Cyclosporin A in Chloroform by Using RDCs Measured in a Stretched PDMS-Gel. ChemBioChem, 2005, 6, 1672-1678.	2.6	91
22	Rapid Heteronuclear Single Quantum Correlation NMR Spectra at Natural Abundance. Journal of the American Chemical Society, 2014, 136, 1242-1245.	13.7	90
23	Residual Dipolar Couplings as a Powerful Tool for Constitutional Analysis: The Unexpected Formation of Tricyclic Compounds. Angewandte Chemie - International Edition, 2011, 50, 2643-2645.	13.8	83
24	Residual Chemical Shift Anisotropy (RCSA): A Tool for the Analysis of the Configuration of Small Molecules. Angewandte Chemie - International Edition, 2011, 50, 9487-9490.	13.8	82
25	Construction of universal rotations from point-to-point transformations. Journal of Magnetic Resonance, 2005, 176, 179-186.	2.1	73
26	Structures of Storageâ€induced Transformation Products of the Beerâ€™s Bitter Principles, Revealed by Sophisticated NMR Spectroscopic and LCâ€“MS Techniques. Chemistry - A European Journal, 2009, 15, 13047-13058.	3.3	72
27	Stepwise Unfolding of Singleâ€Chain Nanoparticles by Chemically Triggered Gates. Angewandte Chemie - International Edition, 2016, 55, 11276-11280.	13.8	72
28	Orientational Properties of Stretched Polystyrene Gels in Organic Solvents and the Suppression of Their Residual1H NMR Signals. Journal of the American Chemical Society, 2005, 127, 6459-6465.	13.7	70
29	Optimal control design of excitation pulses that accommodate relaxation. Journal of Magnetic Resonance, 2007, 188, 330-336.	2.1	68
30	Lipaseâ€catalyzed synthesis of glucoseâ€6â€Oâ€hexanoate in deep eutectic solvents. European Journal of Lipid Science and Technology, 2015, 117, 161-166.	1.5	68
31	Tailoring the optimal control cost function to a desired output: application to minimizing phase errors in short broadband excitation pulses. Journal of Magnetic Resonance, 2005, 172, 17-23.	2.1	67
32	Tunable Alignment for All Polymer Gel/Solvent Combinations for the Measurement of Anisotropic NMR Parameters. Chemistry - A European Journal, 2010, 16, 7087-7089.	3.3	65
33	Homonuclear BIRD-decoupled spectra for measuring one-bond couplings with highest resolution: CLIP/CLAP-RESET and constant-time-CLIP/CLAP-RESET. Journal of Magnetic Resonance, 2014, 239, 110-120.	2.1	65
34	Optically induced dynamic nuclear spin polarisation in diamond. New Journal of Physics, 2016, 18, 013040.	2.9	65
35	Is Enantiomer Assignment Possible by NMR Spectroscopy Using Residual Dipolar Couplings from Chiral Nonracemic Alignment Media?â€”A Critical Assessment. Angewandte Chemie - International Edition, 2012, 51, 8388-8391.	13.8	60
36	Analyses, extensions and comparison of three experimental schemes for measuring (nJCH+DCH)-couplings at natural abundance. Journal of Magnetic Resonance, 2007, 186, 131-141.	2.1	59

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37	Adiabatic z-filtered J-spectroscopy for absorptive homonuclear decoupled spectra. Journal of Magnetic Resonance, 2009, 201, 18-24.	2.1	58
38	Autoinduced Catalysis and Inverse Equilibrium Isotope Effect in the Frustrated Lewis Pair Catalyzed Hydrogenation of Imines. Chemistry - A European Journal, 2015, 21, 8056-8059.	3.3	58
39	P.E.HSQC: A simple experiment for simultaneous and sign-sensitive measurement of (1JCH+DCH) and (2JHH+DHH) couplings. Journal of Magnetic Resonance, 2007, 186, 193-200.	2.1	57
40	Broadband relaxation-optimized polarization transfer in magnetic resonance. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 14742-14747.	7.1	56
41	Variable angle NMR spectroscopy and its application to the measurement of residual chemical shift anisotropy. Journal of Magnetic Resonance, 2011, 209, 19-30.	2.1	56
42	Precise Measurement of RDCs in Water and DMSO Based Gels Using a Silicone Rubber Tube for Tunable Stretching. The Open Spectroscopy Journal, 2008, 2, 29-33.	1.0	56
43	Linear phase slope in pulse design: Application to coherence transfer. Journal of Magnetic Resonance, 2008, 192, 235-243.	2.1	55
44	Reversible single-chain selective point folding via cyclodextrin driven hostâ€“guest chemistry in water. Chemical Communications, 2014, 50, 7056.	4.1	55
45	Structural Role of Glycine in Amyloid Fibrils Formed from Transmembrane Î±-Helicesâ€. Biochemistry, 2005, 44, 3591-3597.	2.5	53
46	Probing Spatial Distribution of Alignment by Deuterium NMR Imaging. Chemistry - A European Journal, 2013, 19, 7013-7019.	3.3	52
47	Crosslinked Poly(ethylene oxide) as a Versatile Alignment Medium for the Measurement of Residual Anisotropic NMR Parameters. Angewandte Chemie - International Edition, 2013, 52, 10309-10312.	13.8	51
48	Covalently Crossâ€linked Gelatin Allows Chiral Distinction at Elevated Temperatures and in DMSO. Chemistry - A European Journal, 2009, 15, 12192-12195.	3.3	50
49	1Hâ^'31P CPMG-Correlated Experiments for the Assignment of Nucleic Acids. Journal of the American Chemical Society, 2001, 123, 11306-11307.	13.7	49
50	Improvements, extensions, and practical aspects of rapid ASAP-HSQC and ALSOFAST-HSQC pulse sequences for studying small molecules at natural abundance. Journal of Magnetic Resonance, 2017, 281, 151-161.	2.1	48
51	CLIPâ€COSY: A Clean Inâ€Phase Experiment for the Rapid Acquisition of COSYâ€type Correlations. Angewandte Chemie - International Edition, 2016, 55, 7655-7659.	13.8	47
52	Direct Evidence for Watsonâ^'Crick Base Pairs in a Dynamic Region of RNA Structure. Journal of the American Chemical Society, 2000, 122, 8095-8096.	13.7	46
53	New strategies for designing robust universal rotation pulses: Application to broadband refocusing at low power. Journal of Magnetic Resonance, 2012, 216, 78-87.	2.1	46
54	Coregulator Control of Androgen Receptor Action by a Novel Nuclear Receptor-binding Motif. Journal of Biological Chemistry, 2014, 289, 8839-8851.	3.4	46

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55	Diffusion in Polymer Solutions: Molecular Weight Distribution by PFGâ€NMR and Relation to SEC. Macromolecular Chemistry and Physics, 2017, 218, 1600440.	2.2	46
56	J-Spectroscopy in the presence of residual dipolar couplings: determination of one-bond coupling constants and scalable resolution. Journal of Biomolecular NMR, 2007, 37, 231-243.	2.8	45
57	Influence of Freezing and Storage Procedure on Human Urine Samples in NMR-Based Metabolomics. Metabolites, 2013, 3, 243-258.	2.9	45
58	Trehalose lipid biosurfactants produced by the actinomycetes Tsukamurella spumae and T. pseudospumae. Applied Microbiology and Biotechnology, 2014, 98, 8905-8915.	3.6	45
59	Extensive Regulation of Diurnal Transcription and Metabolism by Glucocorticoids. PLoS Genetics, 2016, 12, e1006512.	3.5	44
60	Sustainable enzymatic synthesis of glycolipids in a deep eutectic solvent system. Journal of Molecular Catalysis B: Enzymatic, 2016, 133, S281-S287.	1.8	44
61	Configuration determination by residual dipolar couplings: accessing the full conformational space by molecular dynamics with tensorial constraints. Chemical Science, 2019, 10, 8774-8791.	7.4	40
62	Stretched Poly(vinyl acetate) Gels as NMR Alignment Media for the Measurement of Residual Dipolar Couplings in Polar Organic Solvents. Angewandte Chemie, 2005, 117, 427-430.	2.0	39
63	Measurement and application of 1H-19F dipolar couplings in the structure determination of 2'-fluorolabeled RNA. , 2001, 20, 39-47.		37
64	Deuterated polymer gels for measuring anisotropic NMR parameters with strongly reduced artefacts. Chemical Communications, 2008, , 5722.	4.1	36
65	RNA and RNA-Protein Complexes as Targets for Therapeutic Intervention. Current Topics in Medicinal Chemistry, 2002, 2, 289-302.	2.1	36
66	Beechwood carbohydrates for enzymatic synthesis of sustainable glycolipids. Bioresources and Bioprocessing, 2017, 4, 25.	4.2	34
67	Modulating Hinge Flexibility in the APP Transmembrane Domain Alters Î³-Secretase Cleavage. Biophysical Journal, 2019, 116, 2103-2120.	0.5	34
68	Homonuclear Hartmannâ€“Hahn transfer with reduced relaxation losses by use of the MOCCA-XY16 multiple pulse sequence. Journal of Magnetic Resonance, 2004, 166, 39-46.	2.1	33
69	Relaxation-optimised Hartmannâ€“Hahn transfer using a specifically Tailored MOCCA-XY16 mixing sequence for carbonylâ€“carbonyl correlation spectroscopy in 13C direct detection NMR experiments. Journal of Biomolecular NMR, 2009, 43, 187-196.	2.8	32
70	Cytotoxicity and NMR Studies of Platinum Complexes with Cyclooctadiene Ligands. Organometallics, 2014, 33, 4027-4034.	2.3	32
71	Detection of counterfeit brand spirits using 1H NMR fingerprints in comparison to sensory analysis. Food Chemistry, 2018, 245, 112-118.	8.2	32
72	Development of Bag-1L as a therapeutic target in androgen receptor-dependent prostate cancer. ELife, 2017, 6, .	6.0	32

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73	Region of Elongation Factor 1A1 Involved in Substrate Recognition by Legionella pneumophila Glucosyltransferase Lgt1. Journal of Biological Chemistry, 2009, 284, 20167-20174.	3.4	31
74	Biphasic Liquid Crystal and the Simultaneous Measurement of Isotropic and Anisotropic Parameters by Spatially Resolved NMR Spectroscopy. Chemistry - A European Journal, 2017, 23, 13351-13359.	3.3	31
75	Rapid two-dimensional ALSOFAST-HSQC experiment for metabolomics and fluxomics studies: application to a 13C-enriched cancer cell model treated with gold nanoparticles. Analytical and Bioanalytical Chemistry, 2018, 410, 2793-2804.	3.7	31
76	Integrated Process for the Enzymatic Production of Fatty Acid Sugar Esters Completely Based on Lignocellulosic Substrates. Frontiers in Chemistry, 2018, 6, 421.	3.6	31
77	Cross-Fitting of Residual Dipolar Couplings~!2009-11-12~!2009-12-25~!2010-04-22~!. The Open Spectroscopy Journal, 2010, 4, 16-27.	1.0	31
78	Probing heterocycle conformation with residual dipolar couplings. Chemical Communications, 2010, 46, 5879.	4.1	30
79	Structure of the Membrane Anchor of Pestivirus Glycoprotein Erns, a Long Tilted Amphipathic Helix. PLoS Pathogens, 2014, 10, e1003973.	4.7	30
80	JE-TROSY: combined J- and TROSY-spectroscopy for the measurement of one-bond couplings in macromolecules. Journal of Magnetic Resonance, 2003, 163, 92-98.	2.1	29
81	The Fantastic Four: A plug â€˜nâ€™ play set of optimal control pulses for enhancing NMR spectroscopy. Journal of Magnetic Resonance, 2013, 228, 16-31.	2.1	29
82	BEBEtr and BUBI: J-compensated concurrent shaped pulses for 1Hâ€“13C experiments. Journal of Magnetic Resonance, 2013, 232, 7-17.	2.1	29
83	Characterisation and application of ultra-high spin clusters as magnetic resonance relaxation agents. Dalton Transactions, 2015, 44, 5032-5040.	3.3	29
84	Integrative Analysis of Circadian Transcriptome and Metabolic Network Reveals the Role of De Novo Purine Synthesis in Circadian Control of Cell Cycle. PLoS Computational Biology, 2015, 11, e1004086.	3.2	29
85	S3E-E.COSY Methods for the Measurement of 19F Associated Scalar and Dipolar Coupling Constants. Journal of Magnetic Resonance, 2001, 152, 179-184.	2.1	28
86	Structural model for an AxxxGâ€•mediated dimer of surfactantâ€•associated protein C. FEBS Journal, 2004, 271, 2086-2092.	0.2	28
87	Synthesis and Biological Properties of Cylindramide Derivatives: Evidence for Calciumâ€Dependent Cytotoxicity of Tetramic Acid Lactams. ChemBioChem, 2008, 9, 2474-2486.	2.6	28
88	Facile Preparation of Supramolecular H-Shaped (Ter)polymers via Multiple Hydrogen Bonding. ACS Macro Letters, 2013, 2, 211-216.	4.8	28
89	Design of NMR pulse experiments with optimum sensitivity: coherence-order-selective transfer in I2S and I3S spin systems. Molecular Physics, 1998, 95, 787-796.	1.7	27
90	Self-reporting and refoldable profluorescent single-chain nanoparticles. Chemical Science, 2018, 9, 4696-4702.	7.4	27

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91	Synthesis and Conformational Analysis of Efrapeptins. Chemistry - A European Journal, 2012, 18, 478-487.	3.3	26
92	Untargeted multi-platform analysis of the metabolome and the non-starch polysaccharides of kiwifruit during postharvest ripening. Postharvest Biology and Technology, 2017, 125, 65-76.	6.0	26
93	RDC Enhanced NMR Spectroscopy in Organic Solvent Media: The Importance for the Experimental Determination of Periodic Hydrogen Bonded Secondary Structures. Journal of the American Chemical Society, 2009, 131, 15590-15591.	13.7	25
94	Molecular Dynamics with Orientational Tensorial Constraints: A New Approach to Probe the Torsional Angle Distributions of Small Rotationally Flexible Molecules. Journal of Physical Chemistry B, 2019, 123, 8480-8491.	2.6	25
95	Analytical Polarization Transfer Functions for Four Coupled Spins12under Isotropic Mixing Conditions. Journal of Magnetic Resonance, 1999, 138, 19-27.	2.1	24
96	Direct prediction of residual dipolar couplings of small molecules in a stretched gel by stochastic molecular dynamics simulations. Magnetic Resonance in Chemistry, 2015, 53, 213-217.	1.9	24
97	ABC-type miktoarm star terpolymers accessed by H-bonding driven supramolecular self-assembly. European Polymer Journal, 2015, 62, 409-417.	5.4	24
98	Comprehensive and Highâ€Throughput Exploration of Chemical Space Using Broadband ¹⁹Fâ€…NMRâ€Based Screening. Angewandte Chemie - International Edition, 2020, 59, 14809-14817.	13.8	24
99	Superposition of Scalar and Residual Dipolar Couplings: Analytical Transfer Functions for Three Spins 1/2 under Cylindrical Mixing Conditions. Journal of Magnetic Resonance, 2001, 148, 169-181.	2.1	23
100	Alternating Asymmetric Selfâ€Induction in Functionalized Pyrrolidine Oligomers. Angewandte Chemie - International Edition, 2013, 52, 12736-12740.	13.8	21
101	Untargeted NMR Spectroscopic Analysis of the Metabolic Variety of New Apple Cultivars. Metabolites, 2016, 6, 29.	2.9	21
102	Determination of Configuration and Conformation of a Reserpine Derivative with Seven Stereogenic Centers Using Molecular Dynamics with RDCâ€Derived Tensorial Constraints**. Chemistry - A European Journal, 2020, 26, 14435-14444.	3.3	21
103	Analytical Polarization and Coherence Transfer Functions for Three Dipolar Coupled Spins 12. Journal of Magnetic Resonance, 2000, 142, 280-287.	2.1	20
104	A systematic approach for optimizing the robustness of pulse sequence elements with respect to couplings, offsets, and B₁â€field inhomogeneities (COB). Magnetic Resonance in Chemistry, 2012, 50, S63-72.	1.9	20
105	Increased H-Bond Stability Relates to Altered Îµ-Cleavage Efficiency and AÎ² Levels in the I45T Familial Alzheimerâ€™s Disease Mutant of APP. Scientific Reports, 2019, 9, 5321.	3.3	20
106	Formation of a Polymer Surface with a Gradient of Pore Size Using a Microfluidic Chip. Langmuir, 2013, 29, 3797-3804.	3.5	19
107	Crosslinked Poly(ethylene oxide) as a Versatile Alignment Medium for the Measurement of Residual Anisotropic NMR Parameters. Angewandte Chemie, 2013, 125, 10499-10502.	2.0	19
108	Chemisch gesteuerte schrittweise Entfaltung von Einzelkettenâ€Nanopartikeln. Angewandte Chemie, 2016, 128, 11446-11450.	2.0	19

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109	Artifact-free measurement of residual dipolar couplings in DMSO by the use of cross-linked perdeuterated poly(acrylonitrile) as alignment medium. Chemical Communications, 2010, 46, 8273.	4.1	18
110	NMR Investigations on the Aging of Motor Oils. Energy & Fuels, 2015, 29, 7204-7212.	5.1	18
111	Analytical Polarization and Coherence Transfer Functions for Three Coupled Spins 1/2 under Planar Mixing Conditions. Journal of Magnetic Resonance, 1998, 130, 27-32.	2.1	17
112	Structure and potential Câ€terminal dimerization of a recombinant mutant of surfactantâ€associated protein C in chloroform/methanol. FEBS Journal, 2004, 271, 2076-2085.	0.2	17
113	Robust INEPT and refocused INEPT transfer with compensation of a wide range of couplings, offsets, and B 1 -field inhomogeneities (COB3). Journal of Magnetic Resonance, 2014, 247, 111-117.	2.1	17
114	Real-time pure shift measurements for uniformly isotope-labeled molecules using X-selective BIRD homonuclear decoupling. Journal of Magnetic Resonance, 2019, 302, 64-71.	2.1	17
115	Observation of H-bond mediated 3hJH2H3 coupling constants across Watson-Crick AU base pairs in RNA. Journal of Biomolecular NMR, 2002, 24, 133-142.	2.8	16
116	CLIPâ€“ASAPâ€HSQC for fast and accurate extraction of oneâ€bond couplings from isotropic and partially aligned molecules. Magnetic Resonance in Chemistry, 2015, 53, 878-885.	1.9	16
117	Access to Multiblock Copolymers via Supramolecular Hostâ€“Guest Chemistry and Photochemical Ligation. ACS Macro Letters, 2015, 4, 1062-1066.	4.8	16
118	Influence of heating temperature, pressure and pH on recrystallization inhibition activity of antifreeze protein type III. Journal of Food Engineering, 2016, 187, 53-61.	5.2	16
119	Aflatoxin contamination in unrecorded beers from Kenya â€“ A health risk beyond ethanol. Food Control, 2017, 79, 344-348.	5.5	16
120	Offset dependence of homonuclear hartmann-hahn transfer based on residual dipolar couplings in solution state NMR. Applied Magnetic Resonance, 1999, 17, 173-187.	1.2	15
121	Configuration verification via RDCs on the example of a tetraâ€substituted pyrrolidine ring. Magnetic Resonance in Chemistry, 2012, 50, S92-101.	1.9	15
122	Structural characterization of a peptoid with lysine-like side chains and biological activity using NMR and computational methods. Organic and Biomolecular Chemistry, 2013, 11, 640-647.	2.8	15
123	Conformational Analysis of an Î±3Î²1 Integrin-Binding Peptide from Thrombospondin-1:â€‰ Implications for Antiangiogenic Drug Design. Journal of Medicinal Chemistry, 2006, 49, 6324-6333.	6.4	14
124	Targeting of the prostacyclin specific IP1 receptor in lungs with molecular conjugates comprising prostaglandin I2 analogues. Biomaterials, 2010, 31, 2903-2911.	11.4	14
125	Rapid calculation of protein chemical shifts using bond polarization theory and its application to protein structure refinement. Physical Chemistry Chemical Physics, 2012, 14, 12263.	2.8	14
126	Nuclear Magnetic Resonance Relaxivities: Investigations of Ultrahighâ€Spin Lanthanide Clusters from 10 MHz to 1.4 GHz. ChemPhysChem, 2014, 15, 3608-3613.	2.1	14

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127	Q.E.COSY: determining sign and size of small deuterium residual quadrupolar couplings using an extended E.COSY principle. Magnetic Resonance in Chemistry, 2016, 54, 351-357.	1.9	14
128	Optimized NMR Spectroscopic Method for the Configurational Analysis of Chemically Equivalent Vicinal Protons. Angewandte Chemie - International Edition, 2003, 42, 1300-1302.	13.8	13
129	Dynamics of Sodium Ions and Water in Swollen Superabsorbent Hydrogels as Studied by ²³Naâ€•and ¹Hâ€NMR. Macromolecular Chemistry and Physics, 2019, 220, 1800350.	2.2	13
130	Selective ¹H^{Î±} NMR Methods Reveal Functionally Relevant Proline cis/trans Isomers in Intrinsically Disordered Proteins: Characterization of Minor Forms, Effects of Phosphorylation, and Occurrence in Proteome. Angewandte Chemie - International Edition, 2022, 61, .	13.8	13
131	â€œKinâ€•HEHAHA Sequences, Heteronuclear Hartmannâ€“Hahn Transfer with Different Bandwidths for Spins I and S. Journal of Magnetic Resonance, 1997, 126, 110-119.	2.1	12
132	Polystyrene Solutions: Characterization of Molecular Motional Modes by Spectrally Resolved Lowâ€• and Highâ€Field NMR Relaxation. Macromolecular Chemistry and Physics, 2012, 213, 1833-1840.	2.2	12
133	Dendrimerâ€Type Peptoidâ€Decorated Hexaphenylxylenes and Tetraphenylmethanes: Synthesis and Structure in Solution and in the Gas Phase. Chemistry - A European Journal, 2014, 20, 16273-16278.	3.3	12
134	Broadband excitation pulses with variable RF amplitudeâ€dependent flip angle (RADFA). Magnetic Resonance in Chemistry, 2015, 53, 886-893.	1.9	12
135	Time-resolved NMR metabolomics of plant cells based on a microfluidic chip. Journal of Plant Physiology, 2016, 200, 28-34.	3.5	12
136	Boosting the NMR Assignment of Carbohydrates with Clean Inâ€Phase Correlation Experiments. ChemPlusChem, 2018, 83, 53-60.	2.8	12
137	Glucocorticoid deficiency causes transcriptional and post-transcriptional reprogramming of glutamine metabolism. EBioMedicine, 2018, 36, 376-389.	6.1	12
138	Structure of Superabsorbent Polyacrylate Hydrogels and Dynamics of Counterions by Nuclear Magnetic Resonance. Macromolecular Chemistry and Physics, 2019, 220, 1800525.	2.2	12
139	Urinary NMR Profiling in Pediatric Acute Kidney Injuryâ€”A Pilot Study. International Journal of Molecular Sciences, 2020, 21, 1187.	4.1	12
140	Probing Longâ€Range Anisotropic Interactions: a General and Signâ€Sensitive Strategy to Measure ¹Hâ€“¹H Residual Dipolar Couplings as a Key Advance for Organic Structure Determination. Angewandte Chemie - International Edition, 2020, 59, 5316-5320.	13.8	12
141	Negative polarization transfer between a spin 1/2 and a spin 1. Chemical Physics Letters, 2000, 323, 377-381.	2.6	11
142	Towards Portable Highâ€Resolution NMR Spectroscopy. Angewandte Chemie - International Edition, 2011, 50, 354-356.	13.8	11
143	The structure of cyclolinopeptide A in chloroform refined by RDC measurements. Journal of Peptide Science, 2014, 20, 901-907.	1.4	11
144	Power of Pure Shift HÎ±CÎ± Correlations: A Way to Characterize Biomolecules under Physiological Conditions. Analytical Chemistry, 2020, 92, 12423-12428.	6.5	11

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145	Absence of acoustic signature of the quadrupolar Kondo effect inU0.2Y0.8Pd3. Physical Review B, 1995, 51, 16407-16409.	3.2	10
146	J-ONLY-TOCSY: Efficient suppression of RDC-induced transfer in homonuclear TOCSY experiments using JESTER-1-derived multiple pulse sequences. Journal of Magnetic Resonance, 2007, 189, 217-227.	2.1	10
147	Topological Insight into Superabsorbent Hydrogel Network Structures: a ¹H Doubleâ€Quantum NMR Study. Macromolecular Chemistry and Physics, 2018, 219, 1800100.	2.2	10
148	Polarization recovery during ASAP and SOFAST/ALSOFAST-type experiments. Journal of Magnetic Resonance, 2019, 300, 61-75.	2.1	10
149	Glycolipids produced by Rouxiella sp. DSMÂ100043 and isolation of the biosurfactants via foam-fractionation. AMB Express, 2015, 5, 82.	3.0	9
150	Expedited Nuclear Magnetic Resonance Assignment of Small- to Medium-Sized Molecules with Improved HSQCâ^'CLIPâ^'COSY Experiments. Analytical Chemistry, 2021, 93, 3096-3102.	6.5	9
151	Spin state selectivity and heteronuclear Hartmannâ€“Hahn transfer. Journal of Magnetic Resonance, 2004, 168, 210-216.	2.1	8
152	Naturally Occurring Biodegradable Polymers as the Basis of Chiral Gels for the Distinction of Enantiomers by Partially Oriented Nmr Spectroscopy. International Journal of Artificial Organs, 2011, 34, 134-138.	1.4	8
153	Noncovalently and covalently crossâ€linked polyurethane gels as alignment media and the suppression of residual polymer signals using diffusionâ€filtered spectroscopy. Magnetic Resonance in Chemistry, 2012, 50, S22-8.	1.9	8
154	Profiling human blood serum metabolites by nuclear magnetic resonance spectroscopy: a comprehensive tool for the evaluation of hemodialysis efficiency. Translational Research, 2016, 171, 71-82.e9.	5.0	8
155	Differentiation of enantiomers by 2D NMR spectroscopy at 1â€‰T using residual dipolar couplings. Magnetic Resonance in Chemistry, 2016, 54, 527-530.	1.9	8
156	Efficient Extraction from Mice Feces for NMR Metabolomics Measurements with Special Emphasis on SCFAs. Metabolites, 2019, 9, 55.	2.9	8
157	ASAP-HSQC-TOCSY for fast spin system identification and extraction of long-range couplings. Journal of Magnetic Resonance, 2019, 300, 76-83.	2.1	8
158	Stretched Gelatin Gels as Chiral Alignment Media for the Discrimination of Enantiomers by NMR Spectroscopy. Angewandte Chemie - International Edition, 2005, 44, 3509-3509.	13.8	7
159	Synthesis of Azidoâ€Glycans for Chemical Glycomodification of Proteins. European Journal of Organic Chemistry, 2018, 2018, 4296-4305.	2.4	7
160	Fundamental and practical aspects of molecular dynamics using tensorial orientational constraints. Liquid Crystals, 2020, 47, 2043-2057.	2.2	7
161	Approaching the Megadalton: NMR Spectroscopy of Protein Complexes. Angewandte Chemie - International Edition, 2007, 46, 4214-4216.	13.8	6
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