

# Patrick Giraudeau

## List of Publications by Year in descending order

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107  
papers

3,821  
citations

81900

39  
h-index

149698

56  
g-index

112  
all docs

112  
docs citations

112  
times ranked

2839  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrafast 2D NMR for the analysis of complex mixtures. Progress in Nuclear Magnetic Resonance Spectroscopy, 2022, 130-131, 1-46.	7.5	21
2	Combined Nuclear Magnetic Resonance Spectroscopy and Mass Spectrometry Approaches for Metabolomics. Analytical Chemistry, 2021, 93, 500-518.	6.5	67
3	Multi-scale benchtop 1H NMR spectroscopy for milk analysis. LWT - Food Science and Technology, 2021, 139, 110557.	5.2	11
4	Recent advances in benchtop NMR spectroscopy and its applications. Annual Reports on NMR Spectroscopy, 2021, 103, 191-258.	1.5	16
5	Development of a continuous flow synthesis of FGIN-1-27 enabled by in-line <sup>19</sup> F NMR analyses and optimization algorithms. Reaction Chemistry and Engineering, 2021, 6, 1983-1992.	3.7	3
6	Ultrafast 2D <sup>1</sup> Hâ€“ <sup>1</sup> H NMR spectroscopy of DNP-hyperpolarised substrates for the analysis of mixtures. Chemical Communications, 2021, 57, 8035-8038.	4.1	20
7	High-field and benchtop NMR spectroscopy for the characterization of new psychoactive substances. Forensic Science International, 2021, 321, 110718.	2.2	21
8	Extending the Lipidome Coverage by Combining Different Mass Spectrometric Platforms: An Innovative Strategy to Answer Chemical Food Safety Issues. Foods, 2021, 10, 1218.	4.3	4
9	Nuclear Magnetic Resonance Spectroscopy in Clinical Metabolomics and Personalized Medicine: Current Challenges and Perspectives. Frontiers in Molecular Biosciences, 2021, 8, 698337.	3.5	44
10	Fast quantitative 2D NMR for metabolomics and lipidomics: A tutorial. Magnetic Resonance in Chemistry, 2020, 58, 390-403.	1.9	31
11	Real-time benchtop NMR spectroscopy for the online monitoring of sucrose hydrolysis. LWT - Food Science and Technology, 2020, 118, 108832.	5.2	16
12	Gradient-based pulse sequences for benchtop NMR spectroscopy. Journal of Magnetic Resonance, 2020, 319, 106810.	2.1	18
13	Merging Gradientâ€“Based Methods to Improve Benchtop NMR Spectroscopy: A New Tool for Flow Reaction Optimization. ChemPhysChem, 2020, 21, 2311-2319.	2.1	4
14	Hyperpolarized NMR Metabolomics at Natural <sup>13</sup> C Abundance. Analytical Chemistry, 2020, 92, 14867-14871.	6.5	44
15	Combining rapid 2D NMR experiments with novel pre-processing workflows and MIC quality measures for metabolomics. Metabolomics, 2020, 16, 42.	3.0	6
16	Using benchtop NMR spectroscopy as an online non-invasive in vivo lipid sensor for microalgae cultivated in photobioreactors. Process Biochemistry, 2020, 93, 63-68.	3.7	17
17	NMR-based metabolomics and fluxomics: developments and future prospects. Analyst, The, 2020, 145, 2457-2472.	3.5	59
18	Benchtop flow NMR spectroscopy as an online device for the in vivo monitoring of lipid accumulation in microalgae. Algal Research, 2019, 43, 101624.	4.6	18

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19	Highly Resolved Pure <sup>1</sup> H Shift Spectra on a Compact NMR Spectrometer. <i>ChemPhysChem</i> , 2019, 20, 736-744.	2.1	16
20	Interleaved spatial/spectral encoding in ultrafast 2D NMR spectroscopy. <i>Journal of Magnetic Resonance</i> , 2019, 305, 112-121.	2.1	4
21	Application and methodology of dissolution dynamic nuclear polarization in physical, chemical and biological contexts. <i>Journal of Magnetic Resonance</i> , 2019, 305, 41-50.	2.1	76
22	Two data pre-processing workflows to facilitate the discovery of biomarkers by 2D NMR metabolomics. <i>Metabolomics</i> , 2019, 15, 63.	3.0	8
23	Benchtop NMR for the monitoring of bioprocesses. <i>Magnetic Resonance in Chemistry</i> , 2019, 57, 794-804.	1.9	14
24	Robust 1D NMR lineshape fitting using real and imaginary data in the frequency domain. <i>Journal of Magnetic Resonance</i> , 2019, 298, 91-100.	2.1	24
25	Quantification of natural products in herbal supplements: A combined NMR approach applied on goldenseal. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2019, 165, 155-161.	2.8	13
26	Fast Quantitative 2D NMR for Untargeted and Targeted Metabolomics. <i>Methods in Molecular Biology</i> , 2019, 2037, 365-383.	0.9	6
27	Dynamic Nuclear Polarization Opens New Perspectives for NMR Spectroscopy in Analytical Chemistry. <i>Analytical Chemistry</i> , 2018, 90, 3639-3650.	6.5	67
28	A multidimensional <sup>1</sup> H NMR lipidomics workflow to address chemical food safety issues. <i>Metabolomics</i> , 2018, 14, 60.	3.0	32
29	Ultrafast 2D NMR: Methods and Applications. <i>Annual Reports on NMR Spectroscopy</i> , 2018, 93, 75-144.	1.5	31
30	The FAQUIRE Approach: Fast, QUantitative, highly Resolved and sensitivity Enhanced <sup>1</sup> H, <sup>13</sup> C Data. <i>Analytical Chemistry</i> , 2018, 90, 1845-1851.	6.5	28
31	High-throughput authentication of edible oils with benchtop Ultrafast 2D NMR. <i>Food Chemistry</i> , 2018, 244, 153-158.	8.2	85
32	An Autonomous Self-Optimizing Flow Reactor for the Synthesis of Natural Product Carpanone. <i>Journal of Organic Chemistry</i> , 2018, 83, 14286-14299.	3.2	86
33	Consequences of blunting the mevalonate pathway in cancer identified by a pluri-omics approach. <i>Cell Death and Disease</i> , 2018, 9, 745.	6.3	12
34	Characterizing the Spoilage of Egg Products using Targeted and Non-targeted Approaches. , 2018, , 157-258.		3
35	The Potential of Online Analysis Systems for the Chemotyping of the Egg Matrix. , 2018, , 259-283.		0
36	Diffusion-ordered spectroscopy on a benchtop spectrometer for drug analysis. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2018, 160, 268-275.	2.8	29

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37	Flow reactors integrated with in-line monitoring using benchtop NMR spectroscopy. Reaction Chemistry and Engineering, 2018, 3, 399-413.	3.7	82
38	Isotope Ratio Monitoring by NMR: Part 1 "Recent Advances. ", 2018, , 1353-1378.		1
39	Ultrafast acquisition of 1H-1H dipolar correlation experiments in spinning elastomers. Journal of Magnetic Resonance, 2017, 277, 30-35.	2.1	8
40	Oxidative Neutralization of Mustard Gas Simulants in an On-Board Flow Device with In-Line NMR Monitoring. Angewandte Chemie, 2017, 129, 7676-7680.	2.0	11
41	Oxidative Neutralization of Mustard Gas Simulants in an On-Board Flow Device with In-Line NMR Monitoring. Angewandte Chemie - International Edition, 2017, 56, 7568-7572.	13.8	42
42	Plant metabolism as studied by NMR spectroscopy. Progress in Nuclear Magnetic Resonance Spectroscopy, 2017, 102-103, 61-97.	7.5	85
43	Optimized decoupling schemes in ultrafast HSQC experiments. Journal of Magnetic Resonance, 2017, 283, 89-95.	2.1	3
44	Perspectives on the future of NMR, by the Associate Editors. Magnetic Resonance in Chemistry, 2017, 55, 6-6.	1.9	0
45	The new face of isotopic NMR at natural abundance. Magnetic Resonance in Chemistry, 2017, 55, 77-90.	1.9	50
46	Challenges and perspectives in quantitative NMR. Magnetic Resonance in Chemistry, 2017, 55, 61-69.	1.9	85
47	Multidimensional NMR approaches towards highly resolved, sensitive and high-throughput quantitative metabolomics. Current Opinion in Biotechnology, 2017, 43, 49-55.	6.6	65
48	Gradient-based solvent suppression methods on a benchtop spectrometer. Magnetic Resonance in Chemistry, 2017, 55, 91-98.	1.9	41
49	Precise and rapid isotopic analysis by 1H-13C 2D NMR: Application to triacylglycerol matrices. Talanta, 2016, 156-157, 239-244.	5.5	17
50	MRC launches its new Associate Editorial Board. Magnetic Resonance in Chemistry, 2016, 54, 5-7.	1.9	1
51	Highly Repeatable Dissolution Dynamic Nuclear Polarization for Heteronuclear NMR Metabolomics. Analytical Chemistry, 2016, 88, 6179-6183.	6.5	57
52	Ultrafast 2D NMR on a benchtop spectrometer: Applications and perspectives. TrAC - Trends in Analytical Chemistry, 2016, 83, 65-75.	11.4	67
53	Ultrafast double-quantum NMR spectroscopy with optimized sensitivity for the analysis of mixtures. Analyst, The, 2016, 141, 1686-1692.	3.5	13
54	Understanding the tautomerism in azacalixpyrins. Physical Chemistry Chemical Physics, 2016, 18, 9608-9615.	2.8	10

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55	Detection of quadrupolar nuclei by ultrafast 2D NMR: exploring the case of deuterated analytes aligned in chiral oriented solvents. <i>Chemical Communications</i> , 2016, 52, 2122-2125.	4.1	13
56	Isotope Ratio Monitoring by NMR. Part 1: Recent Advances. , 2016, , 1-26.		2
57	MRC special issue on fast multi-dimensional NMR methods. <i>Magnetic Resonance in Chemistry</i> , 2015, 53, 877-877.	1.9	2
58	Resolution-enhanced 2D NMR of complex mixtures by non-uniform sampling. <i>Magnetic Resonance in Chemistry</i> , 2015, 53, 913-920.	1.9	49
59	Understanding Modulation during Spatial Encoding for Sensitivity-Optimized Ultrafast NMR Spectroscopy. <i>ChemPhysChem</i> , 2015, 16, 3093-3100.	2.1	18
60	Non-linear effects in quantitative 2D NMR of polysaccharides: Pitfalls and how to avoid them. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2015, 108, 78-85.	2.8	14
61	<i>In Situ</i> Ultrafast 2D NMR Spectroelectrochemistry for Real-Time Monitoring of Redox Reactions. <i>Analytical Chemistry</i> , 2015, 87, 372-375.	6.5	55
62	Absolute quantification of metabolites in tomato fruit extracts by fast 2D NMR. <i>Metabolomics</i> , 2015, 11, 1231-1242.	3.0	50
63	Ultrafast double-quantum NMR spectroscopy. <i>Chemical Communications</i> , 2015, 51, 354-357.	4.1	25
64	Hyperpolarized NMR of plant and cancer cell extracts at natural abundance. <i>Analyst, The</i> , 2015, 140, 5860-5863.	3.5	87
65	Optimizing water suppression for quantitative NMR-based metabolomics: a tutorial review. <i>Metabolomics</i> , 2015, 11, 1041-1055.	3.0	78
66	Fast hybrid multi-dimensional NMR methods based on ultrafast 2D NMR. <i>Magnetic Resonance in Chemistry</i> , 2015, 53, 986-994.	1.9	25
67	Real-time reaction monitoring by ultrafast 2D NMR on a benchtop spectrometer. <i>Analyst, The</i> , 2015, 140, 7854-7858.	3.5	52
68	Quantitative 2D liquid-state NMR. <i>Magnetic Resonance in Chemistry</i> , 2014, 52, 259-272.	1.9	109
69	Processing strategies to obtain clean interleaved ultrafast 2D NMR spectra. <i>Journal of Magnetic Resonance</i> , 2014, 238, 87-93.	2.1	23
70	Reference and normalization methods: Essential tools for the intercomparison of NMR spectra. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2014, 93, 3-16.	2.8	58
71	Ultrafast 2D NMR: An Emerging Tool in Analytical Spectroscopy. <i>Annual Review of Analytical Chemistry</i> , 2014, 7, 129-161.	5.4	141
72	Evaluation of Fast 2D NMR for Metabolomics. <i>Analytical Chemistry</i> , 2014, 86, 5946-5954.	6.5	105

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73	In situ NMR spectroelectrochemistry for the structure elucidation of unstable intermediate metabolites. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 5817-5824.	3.7	39
74	Fast Quantitative <sup>1</sup> H- <sup>13</sup> C Two-Dimensional NMR with Very High Precision. <i>Analytical Chemistry</i> , 2013, 85, 4777-4783.	6.5	36
75	How metabolomics can contribute to bio-processes: a proof of concept study for biomarkers discovery in the context of nitrogen-starved microalgae grown in photobioreactors. <i>Metabolomics</i> , 2013, 9, 1286-1300.	3.0	25
76	A toolbox of HSQC experiments for small molecules at high <sup>13</sup> C-enrichment. Artifact-free, fully <sup>13</sup> C-homodecoupled and J <sub>CC</sub> -encoding pulse sequences. <i>Magnetic Resonance in Chemistry</i> , 2013, 51, 808-814.	1.9	17
77	Fast Spatially Encoded 3D NMR Strategies for <sup>13</sup> C-Based Metabolic Flux Analysis. <i>Analytical Chemistry</i> , 2013, 85, 9751-9757.	6.5	29
78	Understanding the degradation of electrochemically-generated reactive drug metabolites by quantitative NMR. <i>Talanta</i> , 2013, 116, 554-558.	5.5	28
79	Fast and Ultrafast Quantitative 2D NMR. <i>Advances in Botanical Research</i> , 2013, , 99-158.	1.1	16
80	New practical tools for the implementation and use of ultrafast 2D NMR experiments. <i>Magnetic Resonance in Chemistry</i> , 2013, 51, 168-175.	1.9	17
81	Optimization and practical implementation of ultrafast 2D NMR experiments. <i>Quimica Nova</i> , 2013, 36, 577-581.	0.3	9
82	Limitation of Diffusion Effects in Ultrafast 2D Nuclear Magnetic Resonance by Encapsulation of Analytes in Phospholipidic Vesicles. <i>ChemPhysChem</i> , 2012, 13, 4124-4127.	2.1	11
83	Real-time separation of natural products by ultrafast 2D NMR coupled to on-line HPLC. <i>Analyst, The</i> , 2012, 137, 2357.	3.5	33
84	Fast Determination of Absolute Metabolite Concentrations by Spatially Encoded 2D NMR: Application to Breast Cancer Cell Extracts. <i>Analytical Chemistry</i> , 2012, 84, 10831-10837.	6.5	81
85	Fast access to residual dipolar couplings by single-scan 2D NMR in oriented media. <i>Magnetic Resonance in Chemistry</i> , 2012, 50, S53-7.	1.9	19
86	Real-time mechanistic monitoring of an acetal hydrolysis using ultrafast 2D NMR. <i>Magnetic Resonance in Chemistry</i> , 2012, 50, 496-501.	1.9	28
87	UFJCOSEY: A Fast 3D NMR Method for Measuring Isotopic Enrichments in Complex Samples. <i>ChemPhysChem</i> , 2012, 13, 3098-3101.	2.1	31
88	Ultrafast hetero-nuclear 2D J-resolved spectroscopy. <i>Journal of Magnetic Resonance</i> , 2012, 214, 335-339.	2.1	16
89	Absolute quantification of metabolites in breast cancer cell extracts by quantitative 2D <sup>1</sup> H INADEQUATE NMR. <i>NMR in Biomedicine</i> , 2012, 25, 985-992.	2.8	66
90	Multi-scan single shot quantitative 2D NMR: a valuable alternative to fast conventional quantitative 2D NMR. <i>Analyst, The</i> , 2011, 136, 3157.	3.5	60

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91	Ultrafast Quantitative 2D NMR: An Efficient Tool for the Measurement of Specific Isotopic Enrichments in Complex Biological Mixtures. <i>Analytical Chemistry</i> , 2011, 83, 3112-3119.	6.5	63
92	Strategy for choosing extraction procedures for NMR-based metabolomic analysis of mammalian cells. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 401, 2133-2142.	3.7	62
93	Fast and precise quantitative analysis of metabolic mixtures by 2D <sup>1</sup> H INADEQUATE NMR. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2011, 54, 252-257.	2.8	48
94	Sensitivity and lineshape improvement in ultrafast 2D NMR by optimized apodization in the spatially encoded dimension. <i>Magnetic Resonance in Chemistry</i> , 2011, 49, 307-313.	1.9	40
95	Broadband <sup>13</sup> C Homodecoupled Heteronuclear Single-Quantum Correlation Nuclear Magnetic Resonance. <i>ChemPhysChem</i> , 2011, 12, 2409-2411.	2.1	19
96	Kinetics from Indirectly Detected Hyperpolarized NMR Spectroscopy by Using Spatially Selective Coherence Transfers. <i>Chemistry - A European Journal</i> , 2011, 17, 697-703.	3.3	30
97	<sup>1</sup> H NMR noise measurements in hyperpolarized liquid samples. <i>Chemical Physics Letters</i> , 2010, 489, 107-112.	2.6	21
98	A new gradient-controlled method for improving the spectral width of ultrafast 2D NMR experiments. <i>Journal of Magnetic Resonance</i> , 2010, 205, 171-176.	2.1	41
99	Multiple Ultrafast, Broadband 2D NMR Spectra of Hyperpolarized Natural Products. <i>Journal of the American Chemical Society</i> , 2009, 131, 13902-13903.	13.7	101
100	Evaluation of Ultrafast 2D NMR for Quantitative Analysis. <i>Analytical Chemistry</i> , 2009, 81, 479-484.	6.5	47
101	Sensitivity losses and line shape modifications due to molecular diffusion in continuous encoding ultrafast 2D NMR experiments. <i>Journal of Magnetic Resonance</i> , 2008, 195, 9-16.	2.1	35
102	Resolution and sensitivity aspects of ultrafast J-resolved 2D NMR spectra. <i>Journal of Magnetic Resonance</i> , 2008, 190, 339-345.	2.1	56
103	Sources of sensitivity losses in ultrafast 2D NMR. <i>Journal of Magnetic Resonance</i> , 2008, 192, 151-158.	2.1	43
104	A new detection scheme for ultrafast 2D J-resolved spectroscopy. <i>Journal of Magnetic Resonance</i> , 2007, 186, 352-357.	2.1	63
105	Optimization of homonuclear 2D NMR for fast quantitative analysis: Application to tropine-nortropine mixtures. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2007, 43, 1243-1248.	2.8	38
106	Improvement of the inverse-gated-decoupling sequence for a faster quantitative analysis by <sup>13</sup> C NMR. <i>Comptes Rendus Chimie</i> , 2006, 9, 525-529.	0.5	12
107	Improvement of the inverse-gated-decoupling sequence for a faster quantitative analysis of various samples by <sup>13</sup> C NMR spectroscopy. <i>Journal of Magnetic Resonance</i> , 2006, 180, 110-117.	2.1	29