

Thomas BrÃ¤uniger

List of Publications by Year in descending order

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papers

667
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#	ARTICLE	IF	CITATIONS
1	Swept-frequency two-pulse phase modulation (SW _f PPM) sequences with linear sweep profile for heteronuclear decoupling in solid-state NMR. <i>Magnetic Resonance in Chemistry</i> , 2008, 46, 943-947.	1.9	65
2	Solid-state NMR Spectroscopy of Quadrupolar Nuclei in Inorganic Chemistry. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2013, 639, 857-879.	1.2	55
3	Improved Proton Decoupling in NMR Spectroscopy of Crystalline Solids Using the SPINAL-64 Sequence. <i>Monatshefte Fuer Chemie</i> , 2002, 133, 1549-1554.	1.8	45
4	Job-Sharing Storage of Hydrogen in Ru/Li ₂ O Nanocomposites. <i>Nano Letters</i> , 2015, 15, 4170-4175.	9.1	36
5	Study of Oxygen-Nitrogen Replacement in BaTiO ₃ by ¹⁴ N Solid-State Nuclear Magnetic Resonance. <i>Chemistry of Materials</i> , 2005, 17, 4114-4117.	6.7	28
6	Efficient heteronuclear dipolar decoupling in solid-state NMR using frequency-swept SPINAL sequences. <i>Journal of Magnetic Resonance</i> , 2009, 200, 226-232.	2.1	28
7	Enhancement of the central-transition signal in static and magic-angle-spinning NMR of quadrupolar nuclei by frequency-swept fast amplitude-modulated pulses. <i>Chemical Physics Letters</i> , 2004, 383, 403-410.	2.6	27
8	A combined ¹⁴ N/ ²⁷ Al nuclear magnetic resonance and powder X-ray diffraction study of impurity phases in $\text{Si}_2\text{Al}_2\text{O}_5$ -sialon ceramics. <i>Solid State Nuclear Magnetic Resonance</i> , 2003, 23, 62-76.	2.3	23
9	NMR Chemical Shift and Quadrupolar Interaction Parameters of Carbon-Coordinated ²⁷ Al in Aluminium Carbide, Al ₄ C ₃ . <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2011, 637, 530-535.	1.2	23
10	Fast amplitude-modulated pulse trains with frequency sweep (SW-FAM) in static NMR of half-integer spin quadrupolar nuclei. <i>Journal of Magnetic Resonance</i> , 2006, 181, 68-78.	2.1	22
11	A 45 Sc-NMR and DFT calculation study of crystalline scandium compounds. <i>Solid State Sciences</i> , 2016, 51, 1-7.	3.2	22
12	Full differentiation and assignment of boron species in the electrolytes Li ₂ B ₆ O ₉ F ₂ and Li ₂ B ₃ O ₄ F ₃ by solid-state ¹¹ B NMR spectroscopy. <i>Journal of Solid State Chemistry</i> , 2012, 194, 245-249.	2.9	21
13	Improving sensitivity and resolution of MQMAS spectra: A 45 Sc-NMR case study of scandium sulphate pentahydrate. <i>Journal of Magnetic Resonance</i> , 2010, 203, 226-235.	2.1	20
14	Application of fast amplitude-modulated pulse trains for signal enhancement in static and magic-angle-spinning -NMR spectra. <i>Solid State Nuclear Magnetic Resonance</i> , 2004, 26, 114-120.	2.3	18
15	Synthesis and densification of single-phase mayenite (C ₁₂ A ₇). <i>Journal of the European Ceramic Society</i> , 2016, 36, 4237-4241.	5.7	18
16	Ammonothermal Synthesis of EA ₂ M ₂ O ₂ N (EA = Sr, Ba; M = Nb, Ta) Perovskites and ¹⁴ N Solid-state NMR Spectroscopic Investigations of AM ₂ (O,N) ₃ (A = Ca, Sr, Ba, La). <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 5019-5026.	2.0	17
17	The dynamic disorder of azulene: A single crystal deuterium nuclear magnetic resonance study. <i>Journal of Chemical Physics</i> , 2000, 112, 10858-10870.	3.0	16
18	Efficient 5QMAS NMR of spin-5/2 nuclei: use of fast amplitude-modulated radio-frequency pulses and cogwheel phase cycling. <i>Journal of Magnetic Resonance</i> , 2003, 163, 64-72.	2.1	16

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19	Frequency-swept pulse sequences for ¹⁹ F heteronuclear spin decoupling in solid-state NMR. <i>Journal of Magnetic Resonance</i> , 2010, 206, 255-263.	2.1	16
20	Li ₄₇ B ₃ P ₁₄ N ₄₂ "A Lithium Nitridoborophosphate with [P ₃ N ₉] ¹²⁻ , [P ₄ N ₁₀] ¹⁰⁻ , and the Unprecedented [B ₃ P ₃ N ₁₃] ¹⁵⁻ Ion. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 4806-4809.	13.8	16
21	Li ₄₇ B ₃ P ₁₄ N ₄₂ "A Lithium Nitridoborophosphate with [P ₃ N ₉] ¹²⁻ , [P ₄ N ₁₀] ¹⁰⁻ , and the Unprecedented [B ₃ P ₃ N ₁₃] ¹⁵⁻ Ion. <i>Angewandte Chemie</i> , 2017, 129, 4884-4887.	2.0	14
22	Investigation of Structural Changes of Cu(I) and Ag(I) Complexes Utilizing a Flexible, Yet Sterically Demanding Multidentate Phosphine Oxide Ligand. <i>Inorganic Chemistry</i> , 2021, 60, 2437-2445.	4.0	12
23	¹⁹ F-decoupling of half-integer spin quadrupolar nuclei in solid-state NMR: Application of frequency-swept decoupling methods. <i>Solid State Nuclear Magnetic Resonance</i> , 2011, 40, 84-87.	2.3	11
24	An unusual nitride network of aluminum-centered octahedra and phosphorus-centered tetrahedra and structure determination from microcrystalline samples. <i>Chemical Communications</i> , 2017, 53, 2709-2712.	4.1	11
25	Nitridic Analogs of Micas $\text{AE}_3\text{Si}_4\text{P}_1\text{N}_{10}(\text{NH})_2$ ($\text{AE} = \text{Mg, Mg}_{0.94}\text{Ca}_{0.06}$, Ca, Sr). <i>Angewandte Chemie - International Edition</i> , 2022, 61, e202114902.	13.8	11
26	Fast amplitude-modulated pulse trains with frequency sweep (SW-FAM) in solid-state NMR of spin-7/2 nuclei. <i>Journal of Magnetic Resonance</i> , 2008, 193, 102-109.	2.1	10
27	Local Electronic Structure in AlN Studied by Single-Crystal ²⁷ Al and ¹⁴ N NMR and DFT Calculations. <i>Molecules</i> , 2020, 25, 469.	3.8	10
28	NMR interaction tensors of ⁵¹ V and ²⁰⁷ Pb in vanadinite, Pb ₅ (VO ₄) ₃ Cl, determined from DFT calculations and single-crystal NMR measurements, using only one general rotation axis. <i>Solid State Nuclear Magnetic Resonance</i> , 2018, 89, 11-20.	2.3	9
29	Determination of the Full ²⁰⁷ Pb Chemical Shift Tensor of Anglesite, PbSO ₄ , and Correlation of the Isotropic Shift to Lead-Oxygen Distance in Natural Minerals. <i>Crystals</i> , 2019, 9, 43.	2.2	9
30	Local Electronic Structure in ¹³ -LiAlO ₂ Studied by Single-Crystal ²⁷ Al NMR and DFT Calculations. <i>Journal of Physical Chemistry A</i> , 2016, 120, 7839-7846.	2.5	8
31	Determination of the ³¹ P and ²⁰⁷ Pb Chemical Shift Tensors in Pyromorphite, Pb ₅ (PO ₄) ₃ Cl, by Single-Crystal NMR Measurements and DFT Calculations. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2017, 643, 1635-1641.	1.2	7
32	Enhancing the central-transition NMR signal of quadrupolar nuclei by spin population transfer using SW-FAM pulse trains with a tangent-shaped sweep profile. <i>Solid State Nuclear Magnetic Resonance</i> , 2012, 45-46, 16-22.	2.3	6
33	Single-crystal ²⁰⁷ Pb-NMR of wulfenite, PbMoO ₄ , aided by simultaneous measurement of phosgenite, Pb ₂ Cl ₂ CO ₃ . <i>Solid State Nuclear Magnetic Resonance</i> , 2019, 103, 17-24.	2.3	4
34	Nitridic Analogs of Micas AESi ₃ P ₄ N ₁₀ (NH) ₂ (AE = Mg, Mg _{0.94} Ca _{0.06} , Ca, Sr). <i>Angewandte Chemie</i> , 2022, 134, e202114902.	2.0	4
35	Synthesis of the scandium chloride hydrates ScCl ₃ ·3H ₂ O and Sc ₂ Cl ₄ ·(OH) ₂ ·12H ₂ O and their characterisation by X-ray diffraction, ⁴⁵ Sc NMR spectroscopy and DFT calculations. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2021, 76, 217-225.	0.7	3
36	Relationship between ²⁰⁷ Pb NMR chemical shift and the morphology and crystal structure for the apatites Pb ₅ (AO ₄) ₃ Cl, vanadinite (A = V), pyromorphite (A = P), and mimetite (A = As). <i>American Mineralogist</i> , 2021, 106, 541-548.	1.9	3

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37	Single-Crystal ^{31}P and ^7Li NMR of the Ionic Conductor LiH_2PO_4 . Crystals, 2020, 10, 302.	2.2	1
38	Characterisation of contact twinning for cerussite, PbCO_3 , by single-crystal NMR spectroscopy. Physics and Chemistry of Minerals, 2021, 48, 1.	0.8	1
39	Quantifying the quadrupolar interaction by ^{45}Sc -NMR spectroscopy of single crystals. Solid State Nuclear Magnetic Resonance, 2022, 117, 101775.	2.3	1
40	Supertetrahedral anions in the phosphidosilicates $\text{Na}_{1.25}\text{Ba}_{0.875}\text{Si}_3\text{P}_5$ and $\text{Na}_{31}\text{Ba}_5\text{Si}_{52}\text{P}_{83}$. Dalton Transactions, 2021, 50, 9123-9128.	3.3	0