

Rene Verel

List of Publications by Year in descending order

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78
papers

3,992
citations

126708

33
h-index

118652

62
g-index

89
all docs

89
docs citations

89
times ranked

4860
citing authors

#	ARTICLE	IF	CITATIONS
1	The fold of α -synuclein fibrils. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 8637-8642.	3.3	499
2	CO_2 to Methanol Hydrogenation on Zirconia-Supported Copper Nanoparticles: Reaction Intermediates and the Role of the Metal-Support Interface. Angewandte Chemie - International Edition, 2017, 56, 2318-2323.	7.2	435
3	Characterization of different water pools in solid-state NMR protein samples. Journal of Biomolecular NMR, 2009, 45, 319-327.	1.6	239
4	Adiabatic Dipolar Recoupling in Solid-State NMR: The DREAM Scheme. Journal of Magnetic Resonance, 2001, 150, 81-99.	1.2	189
5	A Proton-Detected 4D Solid-State NMR Experiment for Protein Structure Determination. ChemPhysChem, 2011, 12, 915-918.	1.0	160
6	Influence of aluminates on the hydration kinetics of tricalcium silicate. Cement and Concrete Research, 2017, 100, 245-262.	4.6	146
7	A homonuclear spin-pair filter for solid-state NMR based on adiabatic-passage techniques. Chemical Physics Letters, 1998, 287, 421-428.	1.2	128
8	Protocols for the Sequential Solid-State NMR Spectroscopic Assignment of a Uniformly Labeled 25 kDa Protein: HETCOR (1). ChemBioChem, 2010, 11, 1543-1551.	1.3	126
9	Direct Electrophilic N-Trifluoromethylation of Azoles by a Hypervalent Iodine Reagent. Angewandte Chemie - International Edition, 2012, 51, 6511-6515.	7.2	105
10	Surface Chemistry of Hydrophobic Silica Aerogels. Chemistry of Materials, 2015, 27, 6737-6745.	3.2	100
11	Fast MAS Total Through-Bond Correlation Spectroscopy. Journal of Magnetic Resonance, 2001, 148, 459-464.	1.2	98
12	Structural control on bulk melt properties: Single and double quantum ^{29}Si NMR spectroscopy on alkali-silicate glasses. Geochimica Et Cosmochimica Acta, 2007, 71, 6002-6018.	1.6	89
13	Enhanced Two-Dimensional Dispersion of Group V Metal Oxides on Silica. ACS Catalysis, 2015, 5, 5787-5793.	5.5	75
14	^{29}Si NMR spectroscopy of silica glass: T1 relaxation and constraints on the Si-O-Si bond angle distribution. Chemical Geology, 2008, 256, 269-277.	1.4	65
15	A continuous process for glyoxal valorisation using tailored Lewis-acid zeolite catalysts. Green Chemistry, 2014, 16, 1176-1186.	4.6	59
16	Adiabatic homonuclear polarization transfer in magic-angle-spinning solid-state NMR Presented in part at the 38th ENC conference, March 23-27, 1997, Orlando, Florida, USA.1. Chemical Physics Letters, 1997, 280, 31-39.	1.2	58
17	Polymorphism in an Amyloid-Like Fibril-Forming Model Peptide. Angewandte Chemie - International Edition, 2008, 47, 5842-5845.	7.2	53
18	Direct Detection of ^3H ^1N Hydrogen-Bond Scalar Couplings in Proteins by Solid-State NMR Spectroscopy. Angewandte Chemie - International Edition, 2009, 48, 9322-9325.	7.2	51

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19	CO ₂ to Methanol Hydrogenation on Zirconia-Supported Copper Nanoparticles: Reaction Intermediates and the Role of the Metal-Support Interface. <i>Angewandte Chemie</i> , 2017, 129, 2358-2363.	1.6	51
20	Lead-Halide Scalar Couplings in ²⁰⁷ Pb NMR of APbX ₃ Perovskites (A=Cs, Methylammonium, Tj ETQqO 0,0,rgBT /Overlock 10	1.6	51
21	Pathways of Methane Transformation over Copper-Exchanged Mordenite as Revealed by In-Situ NMR and IR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 910-918.	7.2	50
22	EFFECT OF CLIMATE AND VEGETATION ON SOIL ORGANIC CARBON, HUMUS FRACTIONS, ALLOPHANES, IMOGOLITE, KAOLINITE, AND OXYHYDROXIDES IN VOLCANIC SOILS OF ETNA (SICILY). <i>Soil Science</i> , 2007, 172, 673-691.	0.9	46
23	Ligand ordering determines the catalytic response of hybrid palladium nanoparticles in hydrogenation. <i>Catalysis Science and Technology</i> , 2016, 6, 1621-1631.	2.1	45
24	INADEQUATE-CR Experiments in the Solid State. <i>Journal of Magnetic Resonance</i> , 1999, 140, 300-303.	1.2	44
25	Polarization Transfer over the Water-Protein Interface in Solids. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 5851-5854.	7.2	44
26	Aluminum Redistribution during the Preparation of Hierarchical Zeolites by Desilication. <i>Chemistry - A European Journal</i> , 2015, 21, 14156-14164.	1.7	44
27	Bulk and Nanocrystalline Cesium Lead-Halide Perovskites as Seen by Halide Magnetic Resonance. <i>ACS Central Science</i> , 2020, 6, 1138-1149.	5.3	43
28	Role of Tricoordinate Al Sites in CH ₃ ReO ₃ /Al ₂ O ₃ Olefin Metathesis Catalysts. <i>Journal of the American Chemical Society</i> , 2016, 138, 6774-6785.	6.6	42
29	Elucidation of Anchoring and Restructuring Steps during Synthesis of Silica-Supported Vanadium Oxide Catalysts. <i>Chemistry of Materials</i> , 2016, 28, 5495-5504.	3.2	39
30	Aluminum coordination in rhyolite and andesite glasses and melts: Effect of temperature, pressure, composition and water content. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 77, 11-26.	1.6	38
31	Hydrophobization of Silica Aerogels: Insights from Quantitative Solid-State NMR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2014, 118, 25545-25554.	1.5	38
32	Atomic Models of De Novo Designed cc ² -Met Amyloid-Like Fibrils. <i>Journal of Molecular Biology</i> , 2008, 376, 898-912.	2.0	34
33	Low-Temperature Preparation of Tailored Carbon Nanostructures in Water. <i>Nano Letters</i> , 2012, 12, 2573-2578.	4.5	34
34	Pathways of Methane Transformation over Copper-Exchanged Mordenite as Revealed by In-Situ NMR and IR Spectroscopy. <i>Angewandte Chemie</i> , 2020, 132, 920-928.	1.6	34
35	Probing Water Accessibility in HET-s(218-289) Amyloid Fibrils by Solid-State NMR. <i>Journal of Molecular Biology</i> , 2011, 405, 765-772.	2.0	33
36	The reactivity of acyl chlorides towards sodium phosphoethynolate, Na(OCP): a mechanistic case study. <i>Chemical Science</i> , 2016, 7, 6125-6131.	3.7	32

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37	SrO \cdot Al ₂ O ₃ mixed oxides: A promising class of catalysts for oxidative coupling of methane. Journal of Catalysis, 2011, 281, 241-253.	3.1	31
38	Direct evidence of the effect of synthesis conditions on aluminum siting in zeolite ferrierite: A 27Al MQ MAS NMR study. Microporous and Mesoporous Materials, 2014, 193, 111-114.	2.2	30
39	Improved resolution in 13C solid-state spectra through spin-state-selection. Journal of Magnetic Resonance, 2007, 184, 322-329.	1.2	27
40	Improved Supported Metal Oxides for the Oxidative Dehydrogenation of Propane. Topics in Catalysis, 2016, 59, 1545-1553.	1.3	27
41	Thermal Restructuring of Silica-Grafted TiCl ₄ Species and Consequences for Epoxidation Catalysis. Chemistry - A European Journal, 2013, 19, 9849-9858.	1.7	25
42	Silica-Grafted Sn ^{IV} Catalysts in Hydrogen-Transfer Reactions. ChemCatChem, 2015, 7, 3270-3278.	1.8	24
43	Atomic-Scale Insight into the Structure of Metastable $\hat{\Gamma}^3$ -Ga ₂ O ₃ Nanocrystals and their Thermally-Driven Transformation to $\hat{\Gamma}^2$ -Ga ₂ O ₃ . Journal of Physical Chemistry C, 2020, 124, 20578-20588.	1.5	24
44	Properties of the DREAM scheme and its optimization for application to proteins. Journal of Biomolecular NMR, 2012, 53, 103-112.	1.6	23
45	Structure and Framework Association of Lewis Acid Sites in MOR Zeolite. Journal of the American Chemical Society, 2022, 144, 10377-10385.	6.6	23
46	Reducibility and Dispersion Influence the Activity in Silica-Supported Vanadium-Based Catalysts for the Oxidative Dehydrogenation of Propane: The Case of Sodium Decavanadate. ACS Catalysis, 2020, 10, 2314-2321.	5.5	22
47	Unraveling the molecular mechanism of MIL-53(Al) crystallization. Nature Communications, 2022, 13, .	5.8	22
48	Substituent-controlled, mild oxidative fluorination of iodoarenes: synthesis and structural study of aryl I(III)- and I(V)-fluorides. Chemical Science, 2019, 10, 7251-7259.	3.7	21
49	The mechanism of the colour shift of astaxanthin in $\hat{\Gamma}^{\pm}$ -crustacyanin as investigated by 13C MAS NMR and specific isotope enrichment. Pure and Applied Chemistry, 1997, 69, 2085-2090.	0.9	20
50	J cross polarization in magic-angle-spinning NMR. Chemical Physics Letters, 1997, 266, 465-472.	1.2	20
51	Thermal restructuring of silica-grafted $\hat{\Gamma}^{\pm}$ -CrO ₂ Cl and $\hat{\Gamma}^{\pm}$ -VOCl ₂ species. Dalton Transactions, 2013, 42, 12725.	1.6	20
52	Methane Transformation over Copper-Exchanged Zeolites: From Partial Oxidation to C-C Coupling and Formation of Hydrocarbons. ACS Catalysis, 2021, 11, 12543-12556.	5.5	17
53	Lanthanum vanadate catalysts for selective and stable methane oxybromination. Journal of Catalysis, 2018, 363, 69-80.	3.1	16
54	The structural composition of soil phosphomonoesters as determined by solution 31P NMR spectroscopy and transverse relaxation (T2) experiments. Geoderma, 2019, 345, 31-37.	2.3	16

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55	Low-valent homobimetallic Rh complexes: influence of ligands on the structure and the intramolecular reactivity of Rh ⁺ H intermediates. <i>Chemical Science</i> , 2019, 10, 7937-7945.	3.7	15
56	Selective Production of Carbon Monoxide via Methane Oxychlorination over Vanadyl Pyrophosphate. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 15619-15623.	7.2	14
57	Correlating the Structural Evolution of ZnO/Al ₂ O ₃ to Spinel Zinc Aluminate with its Catalytic Performance in Propane Dehydrogenation. <i>Journal of Physical Chemistry C</i> , 2021, 125, 14065-14074.	1.5	14
58	Polarization-Transfer Methods in Solid-State Magic-Angle-Spinning NMR: Adiabatic CN Pulse Sequences. <i>ChemPhysChem</i> , 2004, 5, 851-862.	1.0	13
59	A supplementary coil for 2H decoupling with commercial HCN MAS probes. <i>Journal of Magnetic Resonance</i> , 2012, 214, 76-80.	1.2	13
60	Elucidating the Distribution and Speciation of Boron and Cesium in BCsX Zeolite Catalysts for Styrene Production. <i>ChemPhysChem</i> , 2018, 19, 437-445.	1.0	12
61	Reduction of Nitrogen Oxides by Hydrogen with Rhodium(I)-Platinum(II) Olefin Complexes as Catalysts. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 25372-25380.	7.2	12
62	Solid-State NMR: Surface Chemistry Applications. , 2017, , 121-127.		9
63	Aluminum Redistribution in ZSM-5 Zeolite upon Interaction with Gaseous Halogens and Hydrogen Halides and Implications in Catalysis. <i>Journal of Physical Chemistry C</i> , 2020, 124, 722-733.	1.5	8
64	Quantitative measures of inorganic phosphorus in soil using solution ³¹ P NMR spectroscopy and spectral deconvolution fitting including a broad signal. <i>Environmental Sciences: Processes and Impacts</i> , 2020, 22, 1084-1094.	1.7	8
65	Identification of lower-order inositol phosphates (IP ₁ and IP ₂) and Tj ETQq1 1 0.784314 rgBT /Over and solution ³¹ P NMR spectroscopy. <i>Biogeosciences</i> , 2020, 17, 5079-5095.	1.3	7
66	Crystal and Electronic Structure of the Lithium-Rich Silver Silicide Li ₁₂ Ag ₁₇ Si ₄ (x=0.15). <i>Chemistry - A European Journal</i> , 2013, 19, 16528-16531.	1.7	6
67	The molecular size continuum of soil organic phosphorus and its chemical associations. <i>Geoderma</i> , 2022, 412, 115716.	2.3	5
68	Selective Production of Carbon Monoxide via Methane Oxychlorination over Vanadyl Pyrophosphate. <i>Angewandte Chemie</i> , 2016, 128, 15848-15852.	1.6	3
69	Probing the molecular character of periodic mesoporous organosilicates via photoluminescence of Lewis acid-base adducts. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 13746-13749.	1.3	3
70	Reduction of Nitrogen Oxides by Hydrogen with Rh(I)-Pt(II) Olefin Complexes as Catalysts. <i>Angewandte Chemie</i> , 0, , .	1.6	3
71	Oxidative dehydrogenation of propane on silica-supported vanadyl sites promoted with sodium metavanadate. <i>Catalysis Science and Technology</i> , 2020, 10, 7186-7193.	2.1	2
72	Transformation of titanium carbide into mesoporous titania for catalysed HBr oxidation. <i>Catalysis Science and Technology</i> , 2020, 10, 4072-4083.	2.1	2

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73	Soil phosphomonoesters in large molecular weight material comprise multiple components. Soil Science Society of America Journal, 2022, 86, 345-357.	1.2	1
74	Silica-Grafted SnIVCatalysts in Hydrogen-Transfer Reactions. ChemCatChem, 2015, 7, 3190-3190.	1.8	0
75	Innenr¼cktitelbild: Selective Production of Carbon Monoxide via Methane Oxychlorination over Vanadyl Pyrophosphate (Angew. Chem. 50/2016). Angewandte Chemie, 2016, 128, 15909-15909.	1.6	0
76	Determining the predominant tautomeric structure of iodine-based group-transfer reagents by 17O NMR spectroscopy. Beilstein Journal of Organic Chemistry, 2018, 14, 2289-2294.	1.3	0
77	Amyloids and Prions: structure, conformations and conformational transitions as seen by NMR. FASEB Journal, 2007, 21, A96.	0.2	0
78	Magnetic Resonance Spectroscopy of Bulk and Nanocrystalline Cesium Lead Halide Perovskites. , 0, , .		0