

Pieter C M M Magusin

List of Publications by Year in descending order

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111
papers

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50170

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docs citations

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times ranked

8467
citing authors

#	ARTICLE	IF	CITATIONS
1	Supramolecular Polymers from Linear Telechelic Siloxanes with Quadruple-Hydrogen-Bonded Units. <i>Macromolecules</i> , 1999, 32, 2696-2705.	2.2	221
2	Understanding Fluoroethylene Carbonate and Vinylene Carbonate Based Electrolytes for Si Anodes in Lithium Ion Batteries with NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2018, 140, 9854-9867.	6.6	219
3	Structure and Reactivity of Zn-Modified ZSM-5 Zeolites: The Importance of Clustered Cationic Zn Complexes. <i>ACS Catalysis</i> , 2012, 2, 71-83.	5.5	214
4	Structural, elastic, thermophysical and dielectric properties of zinc aluminate (ZnAl ₂ O ₄). <i>Journal of the European Ceramic Society</i> , 2004, 24, 2417-2424.	2.8	183
5	Rubber-Filler Interactions and Network Structure in Relation to Stress-Strain Behavior of Vulcanized, Carbon Black Filled EPDM. <i>Macromolecules</i> , 2011, 44, 4887-4900.	2.2	176
6	Identifying the Structural Basis for the Increased Stability of the Solid Electrolyte Interphase Formed on Silicon with the Additive Fluoroethylene Carbonate. <i>Journal of the American Chemical Society</i> , 2017, 139, 14992-15004.	6.6	176
7	The Formation of Well-Defined Hollow Silica Spheres with Multilamellar Shell Structure. <i>Advanced Materials</i> , 2003, 15, 1097-1100.	11.1	167
8	Nucleation and Growth of Monodisperse Silica Nanoparticles. <i>Nano Letters</i> , 2014, 14, 1433-1438.	4.5	165
9	Cooperative Catalysis for Multistep Biomass Conversion with Sn/Al Beta Zeolite. <i>ACS Catalysis</i> , 2015, 5, 928-940.	5.5	164
10	Hollow Silica Spheres with an Ordered Pore Structure and Their Application in Controlled Release Studies. <i>Chemistry - A European Journal</i> , 2006, 12, 1448-1456.	1.7	153
11	Selective oxidation of benzene to phenol with nitrous oxide over MFI zeolites. On the role of iron and aluminum. <i>Journal of Catalysis</i> , 2005, 233, 123-135.	3.1	151
12	Formation of acid sites in amorphous silica-alumina. <i>Journal of Catalysis</i> , 2010, 269, 201-218.	3.1	151
13	Influence of steaming on the acidity and the methanol conversion reaction of HZSM-5 zeolite. <i>Journal of Catalysis</i> , 2013, 307, 194-203.	3.1	149
14	Mesoporous SSZ-13 zeolite prepared by a dual-template method with improved performance in the methanol-to-olefins reaction. <i>Journal of Catalysis</i> , 2013, 298, 27-40.	3.1	144
15	Surface modification of oxidic nanoparticles using 3-methacryloxypropyltrimethoxysilane. <i>Journal of Colloid and Interface Science</i> , 2004, 269, 109-116.	5.0	139
16	Unraveling the Reaction Mechanisms of SiO ₂ Anodes for Li-Ion Batteries by Combining <i>in Situ</i> ⁷ Li and <i>ex Situ</i> ⁷ Li/ ²⁹ Si Solid-State NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2019, 141, 7014-7027.	6.6	136
17	Relaxivity of liposomal paramagnetic MRI contrast agents. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2005, 18, 186-192.	1.1	128
18	Dual template synthesis of a highly mesoporous SSZ-13 zeolite with improved stability in the methanol-to-olefins reaction. <i>Chemical Communications</i> , 2012, 48, 9492.	2.2	112

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19	The Size Dependence of Hydrogen Mobility and Sorption Kinetics for Carbon-Supported MgH ₂ Particles. <i>Advanced Functional Materials</i> , 2014, 24, 3604-3611.	7.8	101
20	Mesoporous Organic-Inorganic Hybrid Materials Built Using Polyhedral Oligomeric Silsesquioxane Blocks. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 5003-5006.	7.2	99
21	Influence of Extraframework Aluminum on the Brønsted Acidity and Catalytic Reactivity of Faujasite Zeolite. <i>ChemCatChem</i> , 2013, 5, 452-466.	1.8	98
22	N ₂ O Decomposition over Fe/ZSM-5: Effect of High-Temperature Calcination and Steaming. <i>Catalysis Letters</i> , 2002, 81, 205-212.	1.4	90
23	The Effect of Water on Quinone Redox Mediators in Nonaqueous Li-O ₂ Batteries. <i>Journal of the American Chemical Society</i> , 2018, 140, 1428-1437.	6.6	88
24	Heterogeneous Distribution of Entanglements in the Polymer Melt and Its Influence on Crystallization. <i>Macromolecules</i> , 2007, 40, 1004-1010.	2.2	83
25	Polar Switching in Trialkylbenzene-1,3,5-tricarboxamides. <i>Journal of Physical Chemistry B</i> , 2012, 116, 3928-3937.	1.2	83
26	In situ Ga K edge XANES study of the activation of Ga/ZSM-5 prepared by chemical vapor deposition of trimethylgallium. <i>Catalysis Letters</i> , 2005, 101, 79-85.	1.4	73
27	Conceptual Frame Rationalizing the Self-Stabilization of H-USY Zeolites in Hot Liquid Water. <i>ACS Catalysis</i> , 2015, 5, 754-768.	5.5	70
28	Effect of Aluminum on the Nature of the Iron Species in Fe-SBA-15. <i>Journal of Physical Chemistry B</i> , 2006, 110, 26114-26121.	1.2	69
29	Brønsted acidity of Al/SBA-15. <i>Microporous and Mesoporous Materials</i> , 2012, 151, 34-43.	2.2	69
30	Combined in situ ²⁹ Si NMR and small-angle X-ray scattering study of precursors in MFI zeolite formation from silicic acid in TPAOH solutions. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 3518.	1.3	66
31	Synthetic aspects and characterization of polypropylene-silica nanocomposites prepared via solid-state modification and sol-gel reactions. <i>Polymer</i> , 2005, 46, 6666-6681.	1.8	66
32	Desilication and silylation of Mo/HZSM-5 for methane dehydroaromatization. <i>Microporous and Mesoporous Materials</i> , 2015, 203, 259-273.	2.2	66
33	Solid-State ¹ H NMR Study on Chemical Cross-Links, Chain Entanglements, and Network Heterogeneity in Peroxide-Cured EPDM Rubbers. <i>Macromolecules</i> , 2007, 40, 8999-9008.	2.2	65
34	Exfoliation of Layered Na-Ion Anode Material Na ₂ Ti ₃ O ₇ for Enhanced Capacity and Cyclability. <i>Chemistry of Materials</i> , 2018, 30, 1505-1516.	3.2	63
35	Surface-selective direct ¹⁷ O DNP NMR of CeO ₂ nanoparticles. <i>Chemical Communications</i> , 2017, 53, 2142-2145.	2.2	62
36	Towards a Selective Heterogeneous Catalyst for Glucose Dehydration to 5-Hydroxymethylfurfural in Water: CrCl ₂ Catalysis in a Thin Immobilized Ionic Liquid Layer. <i>ChemCatChem</i> , 2011, 3, 969-972.	1.8	58

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37	Facile synthesis of the DD3R zeolite: performance in the adsorptive separation of buta-1,3-diene and but-2-ene isomers. <i>Journal of Materials Chemistry</i> , 2011, 21, 18386.	6.7	57
38	An Efficient Hybrid, Nanostructured, Epoxidation Catalyst: Titanium Silsesquioxane-Polystyrene Copolymer Supported on SBA-15. <i>Chemistry - A European Journal</i> , 2007, 13, 1210-1221.	1.7	56
39	On the synthesis of highly acidic nanolayered ZSM-5. <i>Journal of Catalysis</i> , 2015, 327, 10-21.	3.1	56
40	Click chemistry as a means to functionalize macroporous PolyHIPE. <i>Soft Matter</i> , 2009, 5, 804-811.	1.2	55
41	Microporous Mg ²⁺ /Si ⁴⁺ O and Al ³⁺ /Si ⁴⁺ O Materials Derived from Metal Silsesquioxanes. <i>Chemistry of Materials</i> , 2001, 13, 2958-2964.	3.2	54
42	Template-Aluminosilicate Structures at the Early Stages of Zeolite ZSM-5 Formation. A Combined Preparative, Solid-state NMR, and Computational Study. <i>Journal of Physical Chemistry B</i> , 2005, 109, 22767-22774.	1.2	53
43	Microscopic Study of TiF ₃ as Hydrogen Storage Catalyst for MgH ₂ . <i>Journal of Physical Chemistry C</i> , 2012, 116, 26027-26035.	1.5	53
44	Mechanism for Peroxide Cross-Linking of EPDM Rubber from MAS ¹³ C NMR Spectroscopy. <i>Macromolecules</i> , 2009, 42, 8914-8924.	2.2	50
45	Characterization of Ga/HZSM-5 and Ga/HMOR synthesized by chemical vapor deposition of trimethylgallium. <i>Journal of Catalysis</i> , 2003, 219, 352-361.	3.1	49
46	Stepwise Noncovalent Synthesis Leading to Dendrimer-Based Assemblies in Water. <i>Journal of the American Chemical Society</i> , 2007, 129, 15631-15638.	6.6	49
47	Molecular Promoting of Aluminum Metal-Organic Framework Topology MIL-101 by N,N-Dimethylformamide. <i>Inorganic Chemistry</i> , 2014, 53, 882-887.	1.9	49
48	Rhodium Complexes of Sterically Demanding Diphosphonites: A Coordination Chemistry and Catalysis. <i>Organometallics</i> , 2004, 23, 3177-3183.	1.1	46
49	New Intrinsically Radiopaque Hydrophilic Microspheres for Embolization: Synthesis and Characterization. <i>Biomacromolecules</i> , 2008, 9, 84-90.	2.6	45
50	NMR to determine rates of motion and structures in metal-hydrides. <i>Journal of Alloys and Compounds</i> , 2007, 446-447, 499-503.	2.8	44
51	The role of the amorphous phase in melting of linear UHMW-PE; implications for chain dynamics. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 205122.	0.7	44
52	The formation of gigantic hollow silica spheres from an EO76-PO29-EO76/butanol/ethanol/H2O quaternary system. <i>Journal of Materials Chemistry</i> , 2005, 15, 256-259.	6.7	42
53	Polar surface structure of oxide nanocrystals revealed with solid-state NMR spectroscopy. <i>Nature Communications</i> , 2019, 10, 5420.	5.8	41
54	A Comparative Study on Gels and Clathrates of Syndiotactic Polystyrene: Solvent Mobility in Polymer-Solvent Compounds. <i>Macromolecules</i> , 2002, 35, 6630-6637.	2.2	40

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55	Acidic properties of nanolayered ZSM-5 zeolites. <i>Microporous and Mesoporous Materials</i> , 2014, 189, 144-157.	2.2	39
56	Solid-state modification of isotactic polypropylene (iPP) via grafting of styrene. I. Polymerization experiments. <i>Journal of Applied Polymer Science</i> , 2003, 89, 3279-3291.	1.3	37
57	Stochasticity of Pores Interconnectivity in O_2 Batteries and its Impact on the Variations in Electrochemical Performance. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 791-797.	2.1	37
58	Super-microporous organosilicas synthesized from well-defined nanobuilding units. <i>Journal of Materials Chemistry</i> , 2008, 18, 450-457.	6.7	35
59	Sodium NMR relaxation in porous materials. <i>Journal of Magnetic Resonance</i> , 2004, 167, 25-30.	1.2	34
60	Multicomponent supramolecular thermoplastic elastomer with peptide-modified nanofibers. <i>Journal of Polymer Science Part A</i> , 2011, 49, 1764-1771.	2.5	33
61	Hydrogen sites and dynamics in light-weight hydrogen-storage material magnesium-scandium hydride investigated with ^1H and ^2H NMR. <i>Chemical Physics Letters</i> , 2008, 456, 55-58.	1.2	32
62	<i>In Situ</i> Solid-State ^{13}C NMR Observation of Pore Mouth Catalysis in Etherification of β -Citronellene with Ethanol on Zeolite Beta. <i>Journal of the American Chemical Society</i> , 2016, 138, 2802-2808.	6.6	31
63	Factors Influencing the Conductivity of Aqueous Sol(ution)-Gel-Processed Al-Doped ZnO Films. <i>Chemistry of Materials</i> , 2014, 26, 5839-5851.	3.2	29
64	Nature of Enhanced Brønsted Acidity Induced by Extraframework Aluminum in an Ultrastabilized Faujasite Zeolite: An <i>In Situ</i> NMR Study. <i>Journal of Physical Chemistry C</i> , 2021, 125, 9050-9059.	1.5	28
65	Nanostructures of Mg with x-ray diffraction, neutron diffraction, and magic-angle-spinning ^{27}Al NMR. <i>Physical Review B</i> , 2010, 81, .	1.1	27
66	T_2 distribution spectra obtained by continuum fitting method using a mixed Gaussian and exponential kernel function. <i>Journal of Magnetic Resonance</i> , 2013, 235, 109-114.	1.2	27
67	A WAXD and Solid-State NMR Study on Cocrystallization in Partially Cycloaliphatic Polyamide 12.6-Based Copolymers. <i>Macromolecules</i> , 2004, 37, 421-428.	2.2	24
68	Adsorption of cetyltrimethylammonium ions on an acid-activated smectite and their thermal stability. <i>Clay Minerals</i> , 2005, 40, 233-243.	0.2	24
69	Cross-Polymerization of Hard Blocks in Segmented Copoly(ether urea)s. <i>Macromolecules</i> , 2009, 42, 2609-2617.	2.2	24
70	Time domain para hydrogen induced polarization. <i>Solid State Nuclear Magnetic Resonance</i> , 2012, 43-44, 14-21.	1.5	24
71	Interactions of Oxide Surfaces with Water Revealed with Solid-State NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2020, 142, 11173-11182.	6.6	24
72	Thermotropic Phase Behavior of Trialkyl Cyclohexanetriamides. <i>Journal of Physical Chemistry B</i> , 2009, 113, 14158-14164.	1.2	23

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73	Chemical Vapor Deposition of Trimethylaluminum on Dealuminated Faujasite Zeolite. ACS Catalysis, 2013, 3, 1504-1517.	5.5	22
74	Synthesis and Characterization of Some Heterometal-Substituted Ammonium Gallophosphates. Chemistry of Materials, 1999, 11, 1680-1686.	3.2	21
75	Network Density and Diene Conversion in Peroxide-Cured Gumstock EPDM Rubbers. A Solid-State NMR Study. Macromolecular Symposia, 2005, 230, 144-148.	0.4	19
76	Irreversible High-Temperature Hydrogen Interaction with the Metal Organic Framework Cu ₃ (BTC) ₂ . Journal of Physical Chemistry C, 2011, 115, 21521-21525.	1.5	19
77	[Ge ₂] ⁴⁺ Dumbbells with Very Short Ge-Ge Distances in the Zintl Phase Li ₃ NaGe ₂ : A Solid-State Equivalent to Molecular O ₂ . Angewandte Chemie - International Edition, 2016, 55, 1075-1079.	7.2	19
78	Hydrothermal synthesis and characterization of a layered zirconium silicate. Microporous and Mesoporous Materials, 2013, 180, 48-55.	2.2	18
79	Electrochemical Deuteration of Metastable MgTi Alloys: An Effective Way to Inhibit Phase Segregation. Advanced Energy Materials, 2014, 4, 1300590.	10.2	17
80	Text mining assisted review of the literature on Li-O ₂ batteries. JPhys Materials, 2019, 2, 044004.	1.8	16
81	Novel Biodegradable Poly(pentadecalactone-co-oxo-crown ether) Studied with Solid-State ¹ H and ¹³ C NMR. Macromolecular Symposia, 2005, 230, 126-132.	0.4	15
82	Siting and Mobility of Deuterium Absorbed in Cosputtered Mg _{0.65} Ti _{0.35} . A MAS ² H NMR Study. Journal of Physical Chemistry C, 2011, 115, 288-297.	1.5	15
83	Hydroisomerization and hydrocracking activity enhancement of a hierarchical ZSM-5 zeolite catalyst via atomic layer deposition of aluminium. Catalysis Science and Technology, 2016, 6, 6177-6186.	2.1	15
84	n-Pentane hopping in zeolite ZK-5 studied with ¹³ C NMR. Magnetic Resonance in Chemistry, 1999, 37, S108-S117.	1.1	14
85	Rotational Motion of Alkanes on Zeolite ZK-5 Studied from ¹ H- ¹³ C NMR Cross-Relaxation. Journal of Physical Chemistry B, 2004, 108, 5600-5608.	1.2	14
86	New Cu-Based Catalysts Supported on TiO ₂ Films for Ullmann S _N Ar-Type C-C Coupling Reactions. Chemistry - A European Journal, 2012, 18, 1800-1810.	1.7	14
87	Importance of Incorporating Explicit 3D-Resolved Electrode Mesostructures in Li-O ₂ Battery Models. ACS Applied Energy Materials, 2018, 1, 6433-6441.	2.5	14
88	Rotational Motion of Pentane in the Flat T ³ Cages of Zeolite KFI. Journal of Physical Chemistry C, 2008, 112, 5922-5929.	1.5	12
89	Probing and Interpreting the Porosity and Tortuosity Evolution of Li-O ₂ Cathodes on Discharge through a Combined Experimental and Theoretical Approach. Journal of Physical Chemistry C, 2021, 125, 4955-4967.	1.5	11
90	Organo-bridged silsesquioxane titanates for heterogeneous catalytic epoxidation with aqueous hydrogen peroxide. Journal of Catalysis, 2007, 251, 453-458.	3.1	10

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91	[Ge ₂] ⁴⁺ Dumbbells with Very Short Ge-Ge Distances in the Zintl Phase Li ₃ NaGe ₂ : A Solid-State Equivalent to Molecular O ₂ . <i>Angewandte Chemie</i> , 2016, 128, 1087-1091.	1.6	10
92	The use of ¹²⁹ Xe NMR spectroscopy for studying soils. A pilot study. <i>Geoderma</i> , 1997, 80, 449-462.	2.3	9
93	A MAS NMR and DRIFT study of the Ga species in Ga/H-ZSM5 catalysts and their effect on propane ammoxidation. <i>Canadian Journal of Chemistry</i> , 2005, 83, 574-580.	0.6	9
94	Stereochemistry Driven Distribution of 1,4-Diaminocyclohexane Residues over the Crystalline and Amorphous Phase in Copolyamides 4.14/1,4-DACH.14. A Solid-State NMR and Temperature-Dependent WAXD Study. <i>Macromolecules</i> , 2005, 38, 6048-6055.	2.2	9
95	Extracting the Key Fragment in ETS-10 Crystallization and Its Application in AM6 Assembly. <i>Chemistry - A European Journal</i> , 2012, 18, 12078-12084.	1.7	8
96	Chain Mobility in Crosslinked EPDM Rubbers. Comparison of ¹ H NMR T ₂ Relaxometry and Double-Quantum ¹ H NMR. <i>ACS Symposium Series</i> , 2011, , 207-220.	0.5	7
97	Combined High-Resolution Solid-State ¹ H/ ¹³ C NMR Spectroscopy and ¹ H NMR Relaxometry for the Characterization of Kerogen Thermal Maturation. <i>Energy & Fuels</i> , 2021, 35, 1070-1079.	2.5	7
98	Miscibility and Specific Interactions in Blends of Poly(N-vinyl-2-pyrrolidone) and Acid Functional Polyester Resins. <i>Macromolecules</i> , 2008, 41, 8020-8029.	2.2	6
99	Effect of initial estimates and constraints selection in multivariate curve resolution Alternating least squares. Application to low-resolution NMR data. <i>Analytica Chimica Acta</i> , 2009, 641, 37-45.	2.6	6
100	Improved Description of Organic Matter in Shales by Enhanced Solid Fraction Detection with Low-Field ¹ H NMR Relaxometry. <i>Energy & Fuels</i> , 2021, 35, 18194-18209.	2.5	6
101	Coherent Cross-Polarization Theory for a Spin-12 Coupled to a General Object. <i>Journal of Magnetic Resonance</i> , 2000, 143, 243-254.	1.2	5
102	About crosslinking of low molecular weight ethylene-propylene(-diene) copolymer-based artificial latices. <i>Journal of Polymer Science Part A</i> , 2005, 43, 3600-3615.	2.5	5
103	Lightweight hydrogen-storage material Mg _{0.65} Sc _{0.35} D ₂ studied with ² H and ² H- ⁴⁵ Sc MAS NMR exchange spectroscopy. <i>Solid State Nuclear Magnetic Resonance</i> , 2011, 39, 88-98.	1.5	5
104	Influence of Nickel and Silicon Addition on the Deuterium Siting and Mobility in fcc Mg-Ti Hydride Studied with ² H MAS NMR. <i>Journal of Physical Chemistry C</i> , 2014, 118, 10606-10615.	1.5	5
105	Ferrocene in the metal-organic framework MOF-5 studied by homo- and heteronuclear correlation NMR and MD simulation. <i>Microporous and Mesoporous Materials</i> , 2014, 186, 130-136.	2.2	5
106	The effect of irradiation by ultraviolet light on ureido-pyrimidinone based biomaterials. <i>Journal of Polymer Science Part A</i> , 2016, 54, 81-90.	2.5	5
107	Synthesis and extensive characterisation of phosphorus doped graphite. <i>RSC Advances</i> , 2016, 6, 62140-62145.	1.7	4
108	Resolution Improvement in NMR Spectroscopy by Elimination of the Homogeneous Line Broadening. <i>Journal of Magnetic Resonance Series A</i> , 1996, 119, 252-255.	1.6	3

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109	Brownian motion in a deformable medium. <i>Chemical Physics Letters</i> , 2003, 373, 630-635.	1.2	3
110	Single-step alcohol-free synthesis of core-shell nanoparticles of β -casein micelles and silica. <i>RSC Advances</i> , 2014, 4, 25650-25657.	1.7	3
111	Functionalisation of polyHIPE Materials by ATRP Surface Grafting. <i>ACS Symposium Series</i> , 2009, , 327-341.	0.5	1