

# Pieter C M M Magusin

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7739736/publications.pdf>

Version: 2024-02-01

111  
papers

6,138  
citations

50170

46  
h-index

71532

76  
g-index

113  
all docs

113  
docs citations

113  
times ranked

8467  
citing authors

#	ARTICLE	IF	CITATIONS
1	Probing and Interpreting the Porosity and Tortuosity Evolution of Li-O <sub>2</sub> Cathodes on Discharge through a Combined Experimental and Theoretical Approach. <i>Journal of Physical Chemistry C</i> , 2021, 125, 4955-4967.	1.5	11
2	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
3	Combined High-Resolution Solid-State <sup>1</sup> H/ <sup>13</sup> C NMR Spectroscopy and <sup>1</sup> H NMR Relaxometry for the Characterization of Kerogen Thermal Maturation. <i>Energy &amp; Fuels</i> , 2021, 35, 1070-1079.	2.5	7
4	Improved Description of Organic Matter in Shales by Enhanced Solid Fraction Detection with Low-Field <sup>1</sup> H NMR Relaxometry. <i>Energy &amp; Fuels</i> , 2021, 35, 18194-18209.	2.5	6
5	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
6	Text mining assisted review of the literature on Li-O <sub>2</sub> batteries. <i>JPhys Materials</i> , 2019, 2, 044004.	1.8	16
7	Unraveling the Reaction Mechanisms of SiO Anodes for Li-Ion Batteries by Combining <i>in Situ</i> <sup>7</sup> Li and <i>ex Situ</i> <sup>7</sup> Li/ <sup>29</sup> Si Solid-State NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2019, 141, 7014-7027.	6.6	136
8	Polar surface structure of oxide nanocrystals revealed with solid-state NMR spectroscopy. <i>Nature Communications</i> , 2019, 10, 5420.	5.8	41
9	Stochasticity of Pores Interconnectivity in Li <sup>+</sup> O <sub>2</sub> Batteries and its Impact on the Variations in Electrochemical Performance. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 791-797.	2.1	37
10	The Effect of Water on Quinone Redox Mediators in Nonaqueous Li-O <sub>2</sub> Batteries. <i>Journal of the American Chemical Society</i> , 2018, 140, 1428-1437.	6.6	88
11	Exfoliation of Layered Na-Ion Anode Material Na <sub>2</sub> Ti <sub>3</sub> O <sub>7</sub> for Enhanced Capacity and Cyclability. <i>Chemistry of Materials</i> , 2018, 30, 1505-1516.	3.2	63
12	Importance of Incorporating Explicit 3D-Resolved Electrode Mesostuctures in Li <sup>+</sup> O <sub>2</sub> Battery Models. <i>ACS Applied Energy Materials</i> , 2018, 1, 6433-6441.	2.5	14
13	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
14	Surface-selective direct <sup>17</sup> O DNP NMR of CeO <sub>2</sub> nanoparticles. <i>Chemical Communications</i> , 2017, 53, 2142-2145.	2.2	62
15	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
16	[Ge <sub>2</sub> ] <sup>4+</sup> Dumbbells with Very Short Ge-Ge Distances in the Zintl Phase Li <sub>3</sub> NaGe <sub>2</sub> : A Solid-State Equivalent to Molecular O <sub>2</sub> . <i>Angewandte Chemie - International Edition</i> , 2016, 55, 1075-1079.	7.2	19
17	The effect of irradiation by ultraviolet light on ureido- $\epsilon$ -pyrimidinone based biomaterials. <i>Journal of Polymer Science Part A</i> , 2016, 54, 81-90.	2.5	5
18	Hydroisomerization and hydrocracking activity enhancement of a hierarchical ZSM-5 zeolite catalyst via atomic layer deposition of aluminium. <i>Catalysis Science and Technology</i> , 2016, 6, 6177-6186.	2.1	15

#	ARTICLE	IF	CITATIONS
19	[Ge <sub>2</sub> ] <sup>4+</sup> Dumbbells with Very Short Ge-Ge Distances in the Zintl Phase Li <sub>3</sub> NaGe <sub>2</sub> : A Solid-State Equivalent to Molecular O <sub>2</sub> . <i>Angewandte Chemie</i> , 2016, 128, 1087-1091.	1.6	10
20	Synthesis and extensive characterisation of phosphorus doped graphite. <i>RSC Advances</i> , 2016, 6, 62140-62145.	1.7	4
21	<i>In Situ</i> Solid-State <sup>13</sup> C NMR Observation of Pore Mouth Catalysis in Etherification of <sup>12</sup> -Citronellene with Ethanol on Zeolite Beta. <i>Journal of the American Chemical Society</i> , 2016, 138, 2802-2808.	6.6	31
22	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
23	Cooperative Catalysis for Multistep Biomass Conversion with Sn/Al Beta Zeolite. <i>ACS Catalysis</i> , 2015, 5, 928-940.	5.5	164
24	On the synthesis of highly acidic nanolayered ZSM-5. <i>Journal of Catalysis</i> , 2015, 327, 10-21.	3.1	56
25	Desilication and silylation of Mo/HZSM-5 for methane dehydroaromatization. <i>Microporous and Mesoporous Materials</i> , 2015, 203, 259-273.	2.2	66
26	Single-step alcohol-free synthesis of core-shell nanoparticles of <sup>12</sup> -casein micelles and silica. <i>RSC Advances</i> , 2014, 4, 25650-25657.	1.7	3
27	Electrochemical Deuteration of Metastable MgTi Alloys: An Effective Way to Inhibit Phase Segregation. <i>Advanced Energy Materials</i> , 2014, 4, 1300590.	10.2	17
28	The Size Dependence of Hydrogen Mobility and Sorption Kinetics for Carbon-Supported MgH <sub>2</sub> Particles. <i>Advanced Functional Materials</i> , 2014, 24, 3604-3611.	7.8	101
29	Nucleation and Growth of Monodisperse Silica Nanoparticles. <i>Nano Letters</i> , 2014, 14, 1433-1438.	4.5	165
30	Molecular Promoting of Aluminum Metal-Organic Framework Topology MIL-101 by <i>N,N</i> -Dimethylformamide. <i>Inorganic Chemistry</i> , 2014, 53, 882-887.	1.9	49
31	Acidic properties of nanolayered ZSM-5 zeolites. <i>Microporous and Mesoporous Materials</i> , 2014, 189, 144-157.	2.2	39
32	Influence of Nickel and Silicon Addition on the Deuterium Siting and Mobility in fcc Mg-Ti Hydride Studied with <sup>2</sup> H MAS NMR. <i>Journal of Physical Chemistry C</i> , 2014, 118, 10606-10615.	1.5	5
33	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
34	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
35	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
36	Hydrothermal synthesis and characterization of a layered zirconium silicate. <i>Microporous and Mesoporous Materials</i> , 2013, 180, 48-55.	2.2	18

#	ARTICLE	IF	CITATIONS
37	T2 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
38	Influence of Extraframework Aluminum on the Brønsted Acidity and Catalytic Reactivity of Faujasite Zeolite. <i>ChemCatChem</i> , 2013, 5, 452-466.	1.8	98
39	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
40	Chemical Vapor Deposition of Trimethylaluminum on Dealuminated Faujasite Zeolite. <i>ACS Catalysis</i> , 2013, 3, 1504-1517.	5.5	22
41	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
42	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
43	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
44	Polar Switching in Trialkylbenzene-1,3,5-tricarboxamides. <i>Journal of Physical Chemistry B</i> , 2012, 116, 3928-3937.	1.2	83
45	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
46	Brønsted acidity of Al/SBA-15. <i>Microporous and Mesoporous Materials</i> , 2012, 151, 34-43.	2.2	69
47	Time domain para hydrogen induced polarization. <i>Solid State Nuclear Magnetic Resonance</i> , 2012, 43-44, 14-21.	1.5	24
48	New Cu-Based Catalysts Supported on $TiO_2$ Films for Ullmann $S_NAr$ Type $C_{60}$ Coupling Reactions. <i>Chemistry - A European Journal</i> , 2012, 18, 1800-1810.	1.7	14
49	Siting and Mobility of Deuterium Absorbed in Cosputtered $Mg_{0.65}Ti_{0.35}$ . A MAS $^2H$ NMR Study. <i>Journal of Physical Chemistry C</i> , 2011, 115, 288-297.	1.5	15
50	Chain Mobility in Crosslinked EPDM Rubbers. Comparison of $^1H$ NMR $T_2$ Relaxometry and Double-Quantum $^1H$ NMR. <i>ACS Symposium Series</i> , 2011, , 207-220.	0.5	7
51	Irreversible High-Temperature Hydrogen Interaction with the Metal Organic Framework $Cu_3(BTC)_2$ . <i>Journal of Physical Chemistry C</i> , 2011, 115, 21521-21525.	1.5	19
52	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
53	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
54	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

#	ARTICLE	IF	CITATIONS
55	Multicomponent supramolecular thermoplastic elastomer with peptide-modified nanofibers. <i>Journal of Polymer Science Part A</i> , 2011, 49, 1764-1771.	2.5	33
56	Lightweight hydrogen-storage material Mg <sub>0.65</sub> Sc <sub>0.35</sub> D <sub>2</sub> studied with <sup>2</sup> H and <sup>45</sup> Sc MAS NMR exchange spectroscopy. <i>Solid State Nuclear Magnetic Resonance</i> , 2011, 39, 88-98.	1.5	5
57	Formation of acid sites in amorphous silica-alumina. <i>Journal of Catalysis</i> , 2010, 269, 201-218.	3.1	151
58	Nanostructures of Mg <sub>0.65</sub> Sc <sub>0.35</sub> D <sub>2</sub> with x-ray diffraction, neutron diffraction, and magic-angle-spinning NMR. <i>Physical Review B</i> , 2010, 81, ..	1.1	27
59	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
60	Mechanism for Peroxide Cross-Linking of EPDM Rubber from MAS <sup>13</sup> C NMR Spectroscopy. <i>Macromolecules</i> , 2009, 42, 8914-8924.	2.2	50
61	Cross-Polymerization of Hard Blocks in Segmented Copoly(ether urea)s. <i>Macromolecules</i> , 2009, 42, 2609-2617.	2.2	24
62	Click chemistry as a means to functionalize macroporous PolyHIPE. <i>Soft Matter</i> , 2009, 5, 804-811.	1.2	55
63	Thermotropic Phase Behavior of Trialkyl Cyclohexanetriamides. <i>Journal of Physical Chemistry B</i> , 2009, 113, 14158-14164.	1.2	23
64	Functionalisation of polyHIPE Materials by ATRP Surface Grafting. <i>ACS Symposium Series</i> , 2009, , 327-341.	0.5	1
65	Hydrogen sites and dynamics in light-weight hydrogen-storage material magnesium-scandium hydride investigated with <sup>1</sup> H and <sup>2</sup> H NMR. <i>Chemical Physics Letters</i> , 2008, 456, 55-58.	1.2	32
66	Super-microporous organosilicas synthesized from well-defined nanobuilding units. <i>Journal of Materials Chemistry</i> , 2008, 18, 450-457.	6.7	35
67	Rotational Motion of Pentane in the Flat <sup>13</sup> C Cages of Zeolite KFI. <i>Journal of Physical Chemistry C</i> , 2008, 112, 5922-5929.	1.5	12
68	New Intrinsically Radiopaque Hydrophilic Microspheres for Embolization: Synthesis and Characterization. <i>Biomacromolecules</i> , 2008, 9, 84-90.	2.6	45
69	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
70	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
71	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
72	Solid-State <sup>1</sup> 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

#	ARTICLE	IF	CITATIONS
73	Heterogeneous Distribution of Entanglements in the Polymer Melt and Its Influence on Crystallization. <i>Macromolecules</i> , 2007, 40, 1004-1010.	2.2	83
74	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
75	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
76	Mesoporous Organic-Inorganic Hybrid Materials Built Using Polyhedral Oligomeric Silsesquioxane Blocks. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 5003-5006.	7.2	99
77	Organo-bridged silsesquioxane titanates for heterogeneous catalytic epoxidation with aqueous hydrogen peroxide. <i>Journal of Catalysis</i> , 2007, 251, 453-458.	3.1	10
78	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
79	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
80	Novel Biodegradable Poly(pentadecalactone-co-oxo-crown ether) Studied with Solid-State <sup>1</sup> H and <sup>13</sup> C NMR. <i>Macromolecular Symposia</i> , 2005, 230, 126-132.	0.4	15
81	Network Density and Diene Conversion in Peroxide-Cured Gumstock EPDM Rubbers. A Solid-State NMR Study. <i>Macromolecular Symposia</i> , 2005, 230, 144-148.	0.4	19
82	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
83	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
84	Relaxivity of liposomal paramagnetic MRI contrast agents. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2005, 18, 186-192.	1.1	128
85	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
86	About crosslinking of low molecular weight ethylene-propylene(-diene) copolymer-based artificial lattices. <i>Journal of Polymer Science Part A</i> , 2005, 43, 3600-3615.	2.5	5
87	Adsorption of cetyltrimethylammonium ions on an acid-activated smectite and their thermal stability. <i>Clay Minerals</i> , 2005, 40, 233-243.	0.2	24
88	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
89	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
90	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

#	ARTICLE	IF	CITATIONS
91	The formation of gigantic hollow silica spheres from an EO76â€“PO29â€“EO76/butanol/ethanol/H2O quaternary system. <i>Journal of Materials Chemistry</i> , 2005, 15, 256-259.	6.7	42
92	Sodium NMR relaxation in porous materials. <i>Journal of Magnetic Resonance</i> , 2004, 167, 25-30.	1.2	34
93	Structural, elastic, thermophysical and dielectric properties of zinc aluminate (ZnAl <sub>2</sub> O <sub>4</sub> ). <i>Journal of the European Ceramic Society</i> , 2004, 24, 2417-2424.	2.8	183
94	Surface modification of oxidic nanoparticles using 3-methacryloxypropyltrimethoxysilane. <i>Journal of Colloid and Interface Science</i> , 2004, 269, 109-116.	5.0	139
95	Rhodium Complexes of Sterically Demanding Diphosponites:Â Coordination Chemistry and Catalysis. <i>Organometallics</i> , 2004, 23, 3177-3183.	1.1	46
96	Rotational Motion of Alkanes on Zeolite ZK-5 Studied from <sup>1</sup> Hâˆ“ <sup>13</sup> C NMR Cross-Relaxation. <i>Journal of Physical Chemistry B</i> , 2004, 108, 5600-5608.	1.2	14
97	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
98	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
99	The Formation of Well-Defined Hollow Silica Spheres with Multilamellar Shell Structure. <i>Advanced Materials</i> , 2003, 15, 1097-1100.	11.1	167
100	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
101	Brownian motion in a deformable medium. <i>Chemical Physics Letters</i> , 2003, 373, 630-635.	1.2	3
102	Combined in situ <sup>29</sup> 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
103	A Comparative Study on Gels and Clathrates of Syndiotactic Polystyrene:Â Solvent Mobility in Polymerâˆ“Solvent Compounds. <i>Macromolecules</i> , 2002, 35, 6630-6637.	2.2	40
104	N <sub>2</sub> O Decomposition over Fe/ZSM-5: Effect of High-Temperature Calcination and Steaming. <i>Catalysis Letters</i> , 2002, 81, 205-212.	1.4	90
105	Microporous Mgâˆ“Siâˆ“O and Alâˆ“Siâˆ“O Materials Derived from Metal Silsesquioxanes. <i>Chemistry of Materials</i> , 2001, 13, 2958-2964.	3.2	54
106	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
107	n-Pentane hopping in zeolite ZK-5 studied with <sup>13</sup> C NMR. <i>Magnetic Resonance in Chemistry</i> , 1999, 37, S108-S117.	1.1	14
108	Supramolecular Polymers from Linear Telechelic Siloxanes with Quadruple-Hydrogen-Bonded Units. <i>Macromolecules</i> , 1999, 32, 2696-2705.	2.2	221

#	ARTICLE	IF	CITATIONS
109	Synthesis and Characterization of Some Heterometal-Substituted Ammonium Gallophosphates. Chemistry of Materials, 1999, 11, 1680-1686.	3.2	21
110	The use of $^{129}\text{Xe}$ NMR spectroscopy for studying soils. A pilot study. Geoderma, 1997, 80, 449-462.	2.3	9
111	Resolution Improvement in NMR Spectroscopy by Elimination of the Homogeneous Line Broadening. Journal of Magnetic Resonance Series A, 1996, 119, 252-255.	1.6	3